From: Bruno Amara
To: John Kim
Subject: 5 2017-05-09 RAN OPG Business Plan v1_Markup.doc
Date: Monday, May 01, 2017 5:43:51 PM
Attachments: 5 2017-05-09 RAN OPG Business Plan v1_Markup.doc

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Edits on page 2, text and table on page 12

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	May 9, 2017
Agenda Class:	Discussion (In Camera)
Last reviewed by: TB/MBC March 24, 2015	**Tracking to: Fast Track** Cabinet (May 10, 2017)

SUBMISSION TITLE:	2017-2019 Business Plan for Ontario Power Generation

Prepared based on draft submission

I. DECISION BEFORE THE BOARD

- Receive Ontario Power Generation's (OPG) 2017-2019 Business Plan

II. RECOMMENDATIONS:

• Receive the 2016-2018 business plan for Ontario Power Generation	*Receive*
• Note Minister of Energy will provide concurrence with OPG's Business Plan	*Note*
• Approval giving special status to OPG under Section 5.3 of the MBC Travel, Meal and Hospitality Expenses Directive, giving it the authority to approve international travel for its employees.	*tbd*

III. FINANCIAL SUMMARY

$ Millions	**2014-15**	**2015-16**	**2016-17**
Initiative cost requested	0.0	0.0	0.0
Initiative cost recommended	0.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended (Specify Ministry/Program)	0.0	0.0	0.0
Total Fiscal Impact	0.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

As stipulated as part of the 2013-14 Results-based Planning process, the Ministry of Energy is submitting OPG's annual business plans for review by Treasury Board to facilitate incorporating implications into the Province's fiscal plan.

It is under the responsibility of the Minister of Energy on whether or not to provide the Minister's concurrence of OPG's annual multi-year business plan. The Treasury Board submission provides the Minister of Energy with an opportunity to highlight why concurrence is being given and any conditions placed on it. Appendix C provides more information on the concurrence process and the 2013-14 minute.

Under the memorandum of agreement (MOA, July 2015) between the Province (as sole shareholder and the Ministry of Energy as representative of the shareholder) and OPG, the company is required to annually submit its board-approved multi-year business plan to the Minister of Energy for concurrence. The concurrence letter from the Minister to the company will note key elements of the business plan,

how these elements relate to the policy direction and priorities of the Province, and the government's expectation for the performance of the company including indicating any elements of the business plan the government does not concur.

In November 2016, OPG submitted its 2017-2019 Business Plan (Board-approved?) to the Ministry.

Ontario's Fair Hydro Plan (OFHP) is not reflected in OPG's latest Business Plan. The Ministry notes the following OFHP implications for OPG:

- As part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would develop a Special Purpose Vehicle (OPG Trust) which would use 100 per cent debt financing to purchase the right to future cash flows from IESO.~~,~~ It is proposed that the OPG Trust would raise 51% of required funding directly from capital markets while OPG would provide 49% of the financing requirements. The latter would include 44% debt or equity financing from the Province with OPG raising the remaining 5% from capital markets. ~~financed by capital infusions from the Province (Equity injection via an operating asset, raised from higher debt, with additional shares to the Province as sole shareholder), and by third-party lending~~ (check with OFA – currently 256.3M common shares increasing to….needed? Perhaps explain why there are shares given province is sole shareholder, linked to value of OPG assets/equity)
  - These changes are expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income
  - In addition, the Province's net debt position should remain unchanged (Check is OFA)

Financial figures from the OPG Business Plan are included and supplemented with forecast changes for the Ontario Financing Authority, MOF for OFHP implications as part of Province's finalized fiscal plan for the 2017 Budget. The Ministry of Energy indicates it is generally supportive of the fiscal, financial and operational strategies laid out in the business plan.

The earnings before tax (net income and income tax payments in lieu – PILs) of OPG are consolidated on the Province's financial statements and have one-for-one impact on the Province's surplus/deficit position, excluding adjustments that the Province may make upon consolidation of OPG's financials (e.g., unrealized gains or losses). OPG is expected to submit its next multi-year business plan later this year for the period starting January 1, 2017.

Overview of Current Business Plan

OPG's 2017-19 Business Plan details key company undertakings such as business transformation and nuclear refurbishment that will have a substantial electricity system benefit, ratepayer and shareholder impacts. These items were flagged in the previous year's multi-year business plan as well.

- Key Income Statement Forecasts:
  - The figures in the OPG Board approved 2017-2019 Business Plan, along with OFA forecast updates for OFHP (TBC), show a decrease in earnings before tax of $84M in 2017-18 and $89M in 2017-18, followed by increases of $59M in 2018-19 and $120M in 2019-20 over the estimates in the 2016 Budget..

    OPG is forecasting net income attributable to the Shareholder to reach $1B in 2021, from $436M in 2016. Net income in 2017 is forecast to increase as a result of new regulated rates, a gain on sale of OPG's head office, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations

    Net income in 2018 and 2019 is planned to increase, primarily due to higher production, and earnings from oncoming stations including Nanticoke solar in 2019. Return-on-equity

(ROE) is estimated to increase from 4.2% in 2016 to 7.3% by 2021.

In early January 2017, subsequent to the OPG Board's approval of the 2017-2019 Business Plan, OPG reached an agreement with KingSett Canadian Real Estate Income Fund LP for the purchase of OPG's head office property. The net gain is estimated to be $285M and will be distributed to the Trillium Trust.

These estimates are highly dependent on electricity and financial market conditions, regulatory decisions by the Ontario Energy Board (OEB), potential changes to accounting standards or the basis of consolidation in Public Accounts, operational performance, and/or government policy, which can change materially. The first table in Appendix G shows the changes to Province's fiscal plan.

- Annual Operations, Maintenance & Administration (OM&A) expenses from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year.
- The cost of OPG generated electricity to customers is projected to remain ~40% below the average non-OPG cost of electricity to 2018, and over ~30% by 2021. Note: OPG provides predominantly, lower-cost baseload generating capability, rather than more expensive peaking generating capability.
- Headcount Efficiencies – Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3.

  OPG continues ramping up recruitment in 2017 to fill key vacancies in certain areas (particularly in the nuclear business unit) due to high levels of attrition, as well as continued Pickering operations beyond 2020. OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021.

  OPG has hired ~95 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015. OPG intends to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations.

- Key Projects:
  - The plan assumes ongoing operations at Pickering for about four years beyond 2020, and as approved by Cabinet, the execution of the Darlington refurbishment consistent with approved budget of $12.8 billion (including escalation and interest), is now under way. First unit refurbishment began in October 2016, Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, assuming necessary concurrence from the Province is obtained.
  - Sustaining capital expenditures average $570M per year include nuclear expenditures unrelated to Darlington refurbishment and costs for continued operation of Pickering (e.g., Upgrades at Sir Adam Beck and upgrades to DeCewII, and investments in current and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility).
- Rate Application to the OEB:
  - OPG's 2017-19 Business Plan is dependent on the outcome of its rate filing with the OEB for the five-year period from 2017-2021. Oral hearings began February 2017, decision expected in Q3 2017.
    - OPG 2017-2019 BP assumes new rates effective January 1, 2017. The OEB setting a later effective date would negatively impact OPG's 2017-18 fiscal year

net income by ~$50-60M per month of delay.

- On March 2, 2017 the Province filed an amendment to O.Reg.53/05, which enables OPG to smooth its rates based on OPG's total bill impact, rather than on the basis of nuclear rates only.
- On March 8, 2017 OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year

- OPG Request – Special Stats for OPG to Approve International Travel (Appendix F provides more information):
  - OPG has placed a request with the Ministry for authority to approve international travel for its employees. OPG has asked that this application be included with its BP submission to TB/MBC.
    - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business.
    - OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for its pension fund and nuclear funds.
    - OPG requires a high level of international business travel at approximately 90-100 trips annually, while Darlington accounts for 45% and is expected see increases.
    - OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date.

Other Key Fiscal Risks:

Regulatory risks: Potential disallowance of recovery of OPG's current or future deferral and variance account balances (including for the proposed nuclear rate smoothing), future treatment of pension costs.

Accounting risks: Any change in the basis of accounting used for consolidation of OPG on the Province's financial statements could result in potentially significant fiscal impacts.

Financing Costs: Higher cost public capital market borrowing (vs the Province's borrowing cost for OEFC to lend to OPG) would have a negative fiscal impact.

Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	May 1, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEM, TBS		

APPENDIX A: PROPOSED MINUTE (UNDER DEVELOPMENT)

Note receipt of a Business Plan for Ontario Power Generation.

In this regard,

i.) Note the Minister of Energy will provide Ontario Power Generation (OPG) with a concurrence letter for its Business Plan.

ii.) …..request for special status…international travel

iii.) Direct the Ministry, in consultation with the Ministry of Finance / Ontario Financing Authority, to report back to the Board in early January each year with the approved or latest draft business plans for Ontario Power Generation for fiscal planning purposes.

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					**TABLE B1**
		Fiscal Plan Basis			***Appropriations Basis***
$ Millions		**2014-15**	**2015-16**	**2016-17**	**2014-15**
Initiative cost recommended		0.0000	0.0000	0.0000	
Expense changes:					
Operating item	Oper	0.0000	0.0000	0.0000	0.0000
Capital item	Cap	0.0000	0.0000	0.0000	00000
Revenue changes:					
Revenue increase/offset		0.0000	0.0000	0.0000	
Revenue decrease		0.0000	0.0000	0.0000	
Total Fiscal Impact (draw from c-funds)		**0.0000**	**0.0000**	**0.0000**	**0.0000**

APPENDIX C: CONCURRENCE OVERVIEW

Under agreements between the Province (as sole shareholder) and OPG, the company is required to annually submit its multi-year business plan to the Minister of Energy for concurrence. Review of the business plan by Treasury Board prior to concurrence was stipulated as part of the 2013-14 Results-based Planning process (see below).

Concurrence is typically provided to OPG via a letter from the Minister of Energy. The letter will note key elements of the business plan, how these elements relate to the policy direction and priorities of the Province, and the government's expectation for the performance of the company. The letter may also indicate any elements of the business plan of which the government does not concur and/or provide additional guidance on expectations going forward.

The current submission looks at the multi-year business plan for OPG covering 2016-2018. Concurrence with the plan is still pending.

Below is the 2013-14 Results-based Plan Minute:

Directed the Ministry of Energy and its agencies, Ontario Power Generation Inc. and Hydro One Inc., in consultation with the Ontario Financing Authority, to report back:

- Annually each autumn with the respective multi-year business plans of the agencies as approved by the Boards of the companies, for review by Treasury Board/Management Board of Cabinet.
  - In this regard, the report should include the following, on a calendar and government fiscal year basis:
  - Multi-year financial and operational targets, including net income and earnings-before-tax.
  - Projected revenues and cash flows to the Province, including the Ontario Electricity Financial Corporation.
  - Planned financings from the Ontario Electricity Financial Corporation.
- Quarterly with financial projection updates and progress reports on the agencies' respective business plan targets and any other new developments, initiatives or risks that may have a material fiscal impact on the Province including variance analysis of last quarter and year-to-date against the annual business plan reviewed by Treasury Board/Management Board of Cabinet.

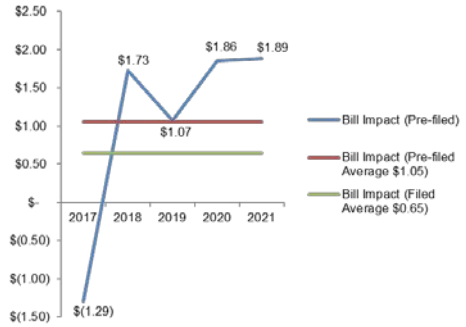
APPENDIX D: SUMMARY OF KEY HIGHLIGHTS FROM OPG BUSINESS PLAN

The Ministry indicates OPG financial and ratepayer forecasts show some changes from last year's business plan projections, as reviewed by Treasury Board in September 2016.

This is in part because 2017 net income is forecast to increase as a result of new regulated rates, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations.

Also, actions taken by the Province and OPG in early 2017 to enable OPG to smooth its rates based on OPG's weighted average hydroelectric and nuclear all-in rates (which approximates total bill impact), rather than on the basis of nuclear base rates only. OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average year-over-year annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year.

Comparison of Annual Bill Impact ($/Month per year)



Production and Total Cost of Generation

OPG's production is expected to fall to 69.8 TWh by 2021 from 77.6 TWh in 2016. This reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016 and overlaps between unit refurbishments, as well as, the Pickering Vacuum Building Outage (VBO) in 2021 requiring the shutdown of all units for the duration of the outage.

Total generating cost shows an increasing trend over the planning period relative to 2016, reflecting Lower nuclear production due to Darlington refurbishment outages, increased sustaining capital spending on two large hydroelectric projects (The Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation).

Operations, Maintenance and Administration (OM&A) Expenses

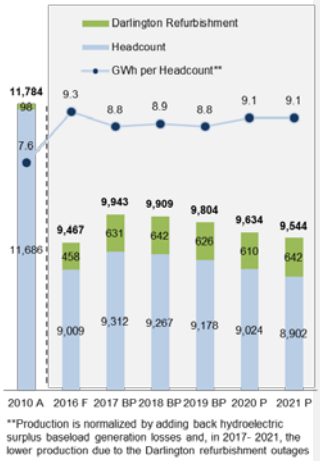
Annual OM&A expenses (excluding Darlington refurbishment OM&A) from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year. Increases related to changes in nuclear outage scope at Darlington and planned hiring to fill staffing gaps, and enabling Pickering continued operations, offset by declining pension related costs, due to projected pension asset returns, increases employee contributions, and new method for dermining interest components of pension costs.

Business Transformation and Labour Costs

As part of a company-wide business transformation, OPG saved over $1B in costs from January 2011 to December 2016:

- Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3.
- OPG continues recruitment in 2017 to fill key vacancies in certain areas (particularly in the Nuclear business unit) due to high levels of attrition, as well as continued Pickering operations beyond 2020
  - OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021
  - To date in 2017, OPG has hired ~95 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015
    - Intention is to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations, per the terms of the collective agreement

Ongoing Operations Regular Headcount and Productivity



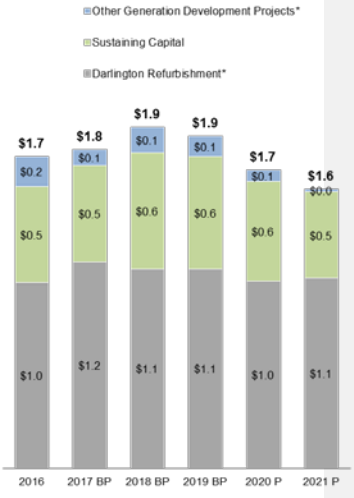
**Production is normalized by adding back hydroelectric surplus baseload generation losses and, in 2017- 2021, the lower production due to the Darlington refurbishment outages

Projects and Capital Expenditures

OPG continues delivery of major projects over the plan period, including:

- Darlington Refurbishment – Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, requiring concurrence from the Province prior to commencement
- Sustaining Capital – Expenditures average $570M, including:
  - Nuclear expenditures unrelated to refurbishment at Darlington and costs for continued operation of Pickering
  - Regulated hydro expenditures including upgrades at Sir Adam Beck and upgrades to DeCew ll
  - Lower Mattagami upgrades in 2018 and 2019
- Other Generation Development Projects – Investments in current (e.g., hydroelectric) and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility by 2019

Capital Expenditure Estimates ($B)



*Includes expenditures budgeted by Support Services

Sales

The following table summarizes sales recently completed and currently underway (as of April 2017). The fiscal plan implications of the completed OPG Head Office sale is reflected in the 2017 Budget. (TBC).

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

APPENDIX E: PROVINCIAL FISCAL PLAN IMPLICATIONS OF BUSINESS PLANS PROCEEDING – (UNDER DEVELOPMENT)

Ontario Power Generation is a Government Business Enterprises (GBE), and consolidated to the Province's financials on a modified equity basis. The Province's Fiscal Plan reflects the entity as Income from Business Enterprises and Electricity Payments-in-Lieu of Taxes (PILs) (As Revenue only).

Revenue ($millions)	**2016-17**	**2017-18**	**2018-19**	**2019-20**
2016 Ontario Budget				
Ontario Power Generation				
Net Income	471	586	673	705
Income Tax	224	159	182	108
2017-2019 OPG Business Plan				
Ontario Power Generation				
Net Income	349	702	678	726
Income Tax	111	184	154	189
2017 Ontario Budget				
Ontario Power Generation				
Net Income (before IFRS Risk)	379	480	678	726
ONFA-related IFRS Risk	(75)	(400)		
GA – OPG Trust Interest Revenue	17	54	99	153
Net Income	~~387~~304	~~497~~-97	732	825
Income Tax	?92	?92	?135	?170
Change in GBE Net Income (Between Budgets)				
Ontario Power Generation	(84)	(89)	59	120
Change in GBE Income Tax PILs +/(-)				
Ontario Power Generation	?	?	?	?
TOTAL OF OPG CHANGES	?	?	?	?

OPG's fiscal results are also impacted by Other PILs to the Ontario Electricity Financial Corporation (OEFC) and the Province. The following table reflects these others impacts in addition to the latest net income and income tax PILs from OPG's August update.

Table below to be updated – OFA

Revenue ($millions)	**2016-17**	**2017-18**	**2018-19**	**2019-20**
2016 Ontario Budget				
Combined Other PILs & Other GRC	342	351	359	
Other PILs (GRC to OEFC, Proxy Property Tax)	213	223	232	
Other GRC (to MOF & Niagara Parks Commission)~~[1]~~	129	128	137	
2017~~6~~-1~~8~~ OPG Business Plan				
Combined Other PILs & Other GRC[2]	~~353~~329	350~~8~~	363~~6~~	362
Other PILs (GRC to OEFC, Proxy Property Tax)[3]	218~~5~~	232~~20~~	243~~20~~	241
Other PILs (GRC to MOF & Niagara Parks Commission)~~[3]~~	~~135~~110	118~~40~~	124~~0~~	121
~~OPG Monthly Update (August 2016)~~				
Net Income	~~361~~379	702~~-~~	678~~-~~	726
2017 Budget Adjustments				
ONFA adjustment	8			
OPG Trust Interest Revenue		17	54	99
OPG IFRS consolidation risk reflected in fiscal plan	-75	-400	-	-
Income Tax PILs to OEFC	~~98~~92	166~~-~~	135~~-~~	170

Source: OPG 2017-2019 Business Plan and further details provided by OPG March 14, 2017~~1. The GRC to MOF & Niagara Parks Commission (NPC) is provided to enable comparison to the 2016-18 Business Plan.~~

~~2. Include GRC to OEFC, GRC to MOF and NPC and Proxy Property Tax, provided to TBS by Energy on September 14, 2016.~~

~~3. Preliminary 2016-19 Business Plan forecast provided by Energy, January 29, 2016. (Do not add to the Combined Other PILs & Other GRC row, likely due to rounding.)~~

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From: Shajee Kathirgamanathan
To: Bruno Amara; John Kim
Cc: Gavin He
Subject: Additional Energy Request
Date: Friday, March 17, 2017 5:30:20 PM

Hi,

There are 3 statements in the narrative that we're having trouble finding backup/fact check for. Can we make these asks to Energy or at least make them aware. Particularly in light of Ron questioning #3 during narrative reviews:

1. *"After the 25% decrease in bills, rates are rising at the rate of inflation"*
    - Please confirm if this refers to only the commodity cost of electricity or entire bills.
        - Cabinet Submission seemed to refer to ***only*** electricity/commodity costs. Furthermore, unclear how this inflation goal can be reached when GA smoothing appear to be the only lever we have to adjust future dynamically.
        - Premier's statement seems to imply total bills: *"After we bring bills down by 25% we will hold them there with rates rising only with inflation -- or roughly 2% -- for at least four years."*
        - The Fair Hydro Plan website is more explicit in referring to total bills: *"And bills won't increase beyond the rate of inflation for at least four years."*

2. *"Decades of under-investment in the electricity system by governments..." (from here)*
    - Please provide any backup or supporting information for this claim, ie 'decades of under-investment'.

3. *"these changes will deliver the single-largest reduction to electricity rates in Ontario's history.." (from here)*
    - Please provide any backup or supporting information for this claim, ie 'single-largest reduction'.

John, Bruno, if these look ok to you, can we run them by Ron and then go to Energy via DMO-to-DMO?

Happy to chat further about this at Monday's branch meeting.

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Gavin He
To: Ronald Kwan
Cc: John Kim; Bruno Amara; Shajee Kathirgamanathan
Subject: Additional Energy Request
Date: Monday, March 20, 2017 12:11:34 PM

Hi Ron,

EFB would like to reach out to Energy for some additional requests. EFB has drafted below covering email and questions, could you please review and let us know if you are good with below messaging and request?

Hi,

With respect to Ontario's Fair Hydro Plan, there are 3 statements (see below) in news releases that we have not been able to fact check or that we are unable to confirm based on our understanding of the proposed measures. Would the Ministry of Energy be able to provide these fact check and explanations? Alternately, to ensure that we are on the same page, could Energy share questions and answers on these issues?

We appreciate your help.

1. *"After the 25% decrease in bills, rates are rising at the rate of inflation"*
    - Please confirm if this refers to only the commodity cost of electricity or entire bills.
        - Cabinet Submission seemed to refer to ***only*** electricity/commodity costs. Furthermore, unclear how this inflation goal can be reached when GA smoothing appear to be the only lever we have to adjust future rates dynamically.
        - Premier's statement seems to imply total bills: *"After we bring bills down by 25% we will hold them there with rates rising only with inflation -- or roughly 2% -- for at least four years."*
        - The Fair Hydro Plan website is more explicit in referring to total bills: *"And bills won't increase beyond the rate of inflation for at least four years."*

2. *"Decades of under-investment in the electricity system by governments..." (from March 2 Backgrounder, Refinancing the Global Adjustment)*
    - Please provide any backup or supporting information for this claim, ie 'decades of under-investment'.

3. *"these changes will deliver the single-largest reduction to electricity rates in Ontario's history.." (from March 2 News Release, Ontario Cutting Electricity Bills by 25 Per Cent)*
    - Please provide any backup or supporting information for this claim, ie 'single-largest reduction'.

Thanks,
Gavin He

From: John Kim
To: Gavin He
Cc: Bruno Amara
Subject: Annotated Agenda MO April 18 2017_CEFD.docx
Date: Monday, April 17, 2017 7:46:05 PM
Attachments: Annotated Agenda MO April 18 2017_CEFD.docx

Hi Gavin,

Added a new item…..used the old version/template.

John

ANNOTATED AGENDA
MO UPDATE: April 3, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. OPG Head Office building sale

On April 4 MOF will be reporting back to TB on the expected results of the sale process prior to closing of the transaction. The TB Minute, if approved, is proposed to be fast-tracked for Cabinet ratification on April 5th.

- On January 9, 2017, OPG announced it had reached an agreement to sell the properties to KingSett Canadian Real Estate Income Fund LP.
- OPG's 2016 Financial Statements indicate that the transaction is expected to close in the second quarter of calendar 2017 (early April) and that, pursuant to the 2015 Shareholder Declaration and Resolution, OPG will be required to transfer the net, after-tax gain to the Province to credit the Trillium Trust.
- OFA staff have begun assessing preliminary information provided by OPG to determine the amount that would be eligible to credit the Trillium Trust.
- OPG's rate 2016/17 rate application submission is currently being assessed by the Ontario Energy Board (OEB) including an ongoing oral hearing.
- It is possible that any public communication with respect to the sale raises questions among intervenors and the OEB on if ratepayers should benefit in any way from this transaction.

2. Hydro One – Financial Benefit to OEFC (s. 50.3 of the *Electricity Act, 1998*)

Ministry of Finance is drafting a Treasury Board submission for the May 9 Treasury Board meeting to provide a financial benefit to the Ontario Electricity Financial Corporation (OEFC) in accordance with s. 50.3 of the *Electricity Act, 1998*. The submission will require the Minister's signed approval by April 18.

- Under the *Electricity Act*, the Ministry of Finance is to provide OEFC with a financial benefit when the Province sells Hydro One shares.
- This financial benefit is being paid as a result of the secondary offering of Hydro One shares in April 2016.
- The payment is fiscally neutral as the expense to the Ministry of Finance is fully offset against the receipt of revenue of OEFC on consolidation of OEFC in the Public Accounts.
- The benefit would accrue to OEFC in 2016-17 but would be administered in 2017-18 by remitting debt owed by OEFC to the Province.

3. Hydro One – Financial Benefit to OEFC (s. 91.2 of the *Electricity Act, 1998*)

The Ministry of Finance is drafting a Treasury Board submission requesting a fiscally-neutral Ministry of Finance increase in 2016-17 to the statutory appropriation "Hydro One Inc., Provincial Corporate Tax Provision, the *Electricity Act, 1998*".

- As per section 91.2 of the *Electricity Act, 1998*, the Minister of Finance is to pay the OEFC an amount equal to tax payable under the *Taxation Act, 2007* (i.e., the provincial corporate income tax -- CIT) by HOI and its subsidiaries, to continue to help service and pay down the electricity sector stranded debt.
- The payment is fiscally neutral as the expense is fully offset against the receipt of revenue of OEFC on consolidation in Public Accounts.

4. Hydro One – Paydown of Debt

The Province has now paid to OEFC the proceeds related to the book value of shares sold in the April 2016 secondary offering.

- The book value of proceeds, totalling about $1.3 billion, have been paid to OEFC to pay down the Province's debt and other payables with OEFC.
- This payment is part of the government's commitment to using proceeds from broadening Hydro One ownership to pay down a targeted $5 billion in debt.
- This follows from the Province's payment to OEFC earlier in 2016-17 of about $1.1 billion in proceeds related to the book value of shares sold in November 2015.
- These amounts are also in addition to the $800 million special dividend received by the Province prior to the Hydro One IPO that was used to pay down debt and other payables with OEFC in 2015-16.

5. Ontario Fair Hydro Plan – Equity Injection

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG continue to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff are working to establish clarity and steps required on the Provincial approvals for the equity injection; however, additional questions were raised during the discussion.
- Currently, parties are all hands on deck on the legislation drafting and the equity injection is expected to pick up soon after.

6. IESO Credit Facility – $975M for Market

At a senior level implementation working group looking at various aspects of the Global Adjustment deferral, the possibility of IESO relying on the $975M credit facility provided by the OFA to fund the short and the longer term financing until third party financing is obtained.

- IESO raised the potential for a) funding the Fair Hydro forecast variances (short term), and b) funding the Fair Hydro amounts not purchased by the OPG SPV (long term).
    - One of the main uses of the $975M credit facility is to provide liquidity into the electricity market to support various initiatives including the Regulated Price Plan (RPP), the Rural or Remote Electricity Rate Protection (RRRP), the new Ontario Electricity Support Program (OESP), the various conservation programs and overall market liquidity.
- If this would become an on-going, and potentially not just short-term, CEFD would be inclined to engage in additional due diligence on certainty of recovery and accounting treatment (given the conditions required by OPG's audit firm), and OFA's involvement (other than the equity injection) would potentially require a revised Minister's Directive, as this would potentially for a purpose not discussed at the time the facility was provided (even if the facility does not explicitly restrict its use).
- In the Minister's Directive signed November 28, 2016, facilitates the lending agreement between the OFA and IESO until the end of 2019 and has the term restriction of 28 to 95 days, essentially providing short-term liquidity for the IESO.

~~6.~~7. Ontario Northland Transportation Commission – Request for Line of Credit

On March 13, 2017, the OFA was contacted by the Ministry of Northern Development and Mines (MNDM) with a request to discuss re-establishing a line of credit for ONTC.

- This request appears to be driven, at least in part, by the depletion of a self-insurance reserve fund for to train derailments. ONTC had been using this fund for working capital management, and without that money is facing pressure in financing its normal operations.
- ONTC is also going to Treasury Board in the next few months for a mandate review and approval of its three-year business plan. OFA staff conveyed to MNDM staff that approval for a line of credit would need to be provided alongside or after TB has approved these items.

~~7.~~8. ALGP: Coral Rapids Conditional Offer Package

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), is seeking a loan guarantee under the ALGP. This loan would allow CRP to finance its investment in a partnership which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station at a lower interest rate than the alternative (a loan from its partner).
- The conditional offer letter was approved and an OIC was obtained at the December 13, 2016 LRC meeting.
    - This application involves the interests of a Schedule 1 bank.
- The briefing package was sent to DMO the week of March 20 with an update the week of March 27 to address a proposed revision in the pledge agreement. Approval

of this revision as soon as possible would allow for legal documentation to be finalized.

- Sign off for execution of the loan guarantee within the next few business days would be ideal to ensure sufficient time for conditions precedent to be satisfied. Financial close is planned for April 10 so that the borrower can meet its equity contribution deadline.
- If staff can facilitate an earlier closing it would likely be appreciated by the borrower. Staff are available for a briefing, if requested.

~~8.~~ 9. Global Adjustment Lawsuit Follow-ups

- Energy DM will likely make a request to OEFC that the costs to be recovered through the GA relating to the Standstill NUGs be recovered over three months to spread out costs for customers.

OTHER ISSUES

~~9.~~ 10. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.
- Proposed amendments to FAA s.28 have been drafted to:
  - (i) give the Minister of Finance or the President of Treasury Board the authority to prescribe in regulation public entities or classes of public entities that would be subject to s. 28; and
  - (ii) give the LGIC the authority to make regulations to define terms used in section 28 that are not already defined in the Act.

~~10.~~ 11. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.
- A formal request from the Minister of Transportation to the Minister of Finance is forthcoming.

~~11.~~ 12. FSCO – Stelco Pension Issue

- As part of a transaction that will allow Stelco to come out of bankruptcy, the parent of Stelco, US Steel, has proposed a sale to Bedrock Industries. This sale limits Bedrock's exposure to the pension plan liabilities.

- The Superintendent of FSCO will temporarily be the nominal administrator of Stelco's 5 pension plans and will be responsible for the related 46 administrative contracts. As the Superintendent is also the regulator, he will subcontract this responsibility in a sole source contract to an administrator.
- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From:	John Kim
To:	Ronald Kwan
Cc:	Bruno Amara; Francisco Chinchon
Subject:	BN - GA Equity Injection Structure v6_Markup2Clean.docx
Date:	Monday, April 03, 2017 10:31:59 AM
Attachments:	BN - GA Equity Injection Structure v6_Markup2Clean.docx

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Hi Ron,

Pls. see attached note that we are looking to circulate later today among the equity injection working group, at least within the OFA.

Thanks,

John

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK5]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK6]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC7]: Not quarterly?

Commented [JK8]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ210]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: John Kim
To: Adam Prokop; Salman Qadir
Cc: Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: BN - GA Equity Injection Structure v7._Markup.docx
Date: Monday, April 03, 2017 4:12:23 PM
Attachments: BN - GA Equity Injection Structure v7._Markup.docx

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I know Bruno and Shajee are tied up on the narrative so took a quick look. Are my edits fair description of the interactions with OPG? Also, could you take a look at the comment?

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  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
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Commented [JK8]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP10]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

PROCESS

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- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
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- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

-

~~ADDITIONAL CONCERNS~~CONSIDERATIONS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

- OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the equity injection for the 44% equity injection.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of the~~is~~ proposed structure is ~~hypothetically~~currently viewed as fiscally neutral on an accounting basis, there is some concern over the cash flow-through of this structure with no flow through of interest or dividends over time.
- The Province would~~ill have~~incurr interest associated with the debt it borrows to finance the 44% equity injection. OPG should have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments.
- The interest cost will continue to build during the lock-up period as more principal is borrowed, resulting in potentially billions of aggregate interest owed by the Province to the capital markets.
- It may be necessary to establish a flow-through of cash from OPG to the province through some type of return, such as a dividend or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Province.

- In order to reasonably guarantee ~~this~~a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield ~~related~~associated with ~~to~~ the interest cost of the Province's ~~related debt~~borrowing costs.

- This could potentially impact credit ratings if rating agencies view the preferred shares as equity rather than debt.

Commented [JK12]: Explain. Is this risk to OPG Trust, OPG or the Province.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: Bruno Amara
To: John Kim
Subject: DLEG-847_ID49011_LRC_CBN- Rate Mitigation- Draft- No materials- V4.docx
Date: Monday, May 01, 2017 5:00:53 PM
Attachments: DLEG-847_ID49011_LRC_CBN- Rate Mitigation- Draft- No materials- V4.docx

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Edits/comments on rate mitigation peice

DRAFT-WITHOUT MATERIALS

CABINET BRIEFING NOTE AND LRC RECOMMENDATION

Energy

DRAFT Financing Global Adjustment

Commented [HT1]: Name as in EVista- Will update as item is updated.

Cabinet (info)	TB/MBC	Cabinet	Announcement	TB/MBC	Cabinet	Introduction
Feb 15, 2017	March 1, 2017	March 1, 2017	March 2, 2017	May 9, 2017	May 10, 2017	May 11, 2017

Summary of Proposal

The proposed legislation contains a variance from Cabinet direction, which is detailed in the ministry's variance memo and within this note.

Context for Decision:

This proposal follows Cabinet direction to the Ministry of Energy to take the necessary steps to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers.

The proposed legislation enables approaches to fairly allocate the costs of the Global Adjustment (GA) amongst current and future electricity rate payers, and help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding. To fully implement the initiative, the Ministry of Energy will be seeking future approvals for regulations identified in the proposed bill, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The proposed legislation:

1. Establishes a framework to finance a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the costs of the GA more fairly across ratepayers between July 1, 2017 and April 30, 2047:
    - July 1, 2017 to April 20, 2018, reduces after-tax electricity costs for specified consumers by 25%.
    - May, 1 2018 to April 31, 2022, electricity rates will be set by Order in Council (OIC) with the intention to keep increases in line with the Consumer Price Index (CPI) (See page 17- Fiscal Pressure)
    - May 1, 2022 to April 30, 2047, electricity rates will increase at a pace that ensures recovery of the accumulated debt, interest costs and

administrative costs, around 10% of total electricity costs. (See page 14- Future Impacts to Electricity Rates)

Commented [HT2]: TBC by Energy

- Through the bill and subsequent amendments to the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998, e*xpanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), to provide for appropriate oversight, putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs. (See page 19- OPG Mechanism)

2. Expands electricity support programs for the most vulnerable consumers and moves program costs from the rate base to the tax base. The bill amends the *Ontario Energy Board Act, 1998* to:
   - ~~M~~move the recently expanded Ontario Electricity Support Program (OESP) to the tax base, transition the program to be administered by the Crown, and to enable information exchange between the Ontario Disability Support Program to potentially allow for automatic enrolment procedures to be established;
   - ~~Amends the Ontario Energy Board Act, 1998 to e~~enable a broadening of the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution costs for customers with the highest distribution rates and moving the program to the tax base; and,
   - ~~Amends the *Ontario Energy Board Act, 1998* to~~ require the establishment of a government funded program to provide a delivery credit to prescribed on reserve customers.

Terms you need to know

- **Global Adjustment (GA) –** The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation and demand management programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:

  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers.'
- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

- **Special Purpose Vehicle (SPV) –**
- **Security Interest –**

Commented [HT3]: TBS: Do you have standard language that you would recommend using?

Why does Ontario need these changes? Why now?

Addressing rising electricity prices is among the highest priorities for Ontarians. There has been increased media attention and public pressure for the government to provide ratepayer relief. On March 2, 2017, the Ontario government announced its electricity rate mitigation package, Ontario's Fair Hydro Plan, which included the initiatives contained in the proposed legislation. The government has committed to implement further rate relief measures by the summer 2017.

What is the expected cost to government?

The total cost of the proposal is $4.1B [TBC] in 2017/18, $1,599M funded through the fiscal plan and $2.5B to be funded through the electricity rate base.

Commented [HT4]: TBC as this includes the equity injection.

Commented [BA5]: Is it clear here what is mean by "cost"? Fiscal cost plus higher debt.

TABLE 1: Cost Impact ($M)	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	499	753	829	892
GA Financing	2,534	2,668	2,942	3,420
~~OPG Loan /~~ Province's OPG Share Purchase (i.e. equity injection)	1,100	?	?	?
Cumulative Total	4,133	3,421	3,771	4,312

Commented [BA6]: Maybe should avoid calling this a loan

Commented [BA7]: May be confusing to total these amounts. 1st row is a fiscal impact while equity injection represents increase in debt but no fiscal impact.

Commented [HT8]: TBC

The proposed bill identifies OPG as the Financial Services Manager and would therefore take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province ($1.1 B in 2017-18; See Table 1) and external private sector financing. The structure has been designed to increase gross debt of the Province (to finance the equity injection in OPG), increase interest on debt related to that external debt, increase net investment in OPG, and increase earnings of OPG. The equity investment has been structured so that the underlying regulatory asset will offset the additional debt to not impact the province's net debt.

Commented [BA9]: Do we need to distinguish between OPG as financial service manager and OPG Trust which would purchase regulatory assets?

The estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $499M in 2017/18, growing to $753M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as program uptake and future energy consumption of various consumer groups, and are therefore subject to change.

Commented [BA10]: Additional to? As proposed this is the only pressure on the fiscal plan. The GA financing as proposed has no impact on the fiscal plan but does impact debt.

TABLE 2: Fiscal Impact ($M)	17-18	18-19	19-20	20-21
RRRP Enhancements*	344	472	484	497

OESP Enhancements	140	261	325	375
First Nations On-Reserve Delivery Credit	15	20	20	20
Total	499**	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.
****Note**: Value adjusted from $665 million to reflect July 2017 implementation.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's options to address electricity rate concerns in the future. (See page 17- Fiscal Pressure)

What are the key steps to deliver this proposal?

- May 11, 2017 - introduce legislation.
- Spring- Summer 2017- Energy to work with IESO, OEB, OPG, and LDCs on the implementation of the Fair Hydro Plan.
- Information postings of proposed regulations.
- June ?? 2017- Energy to bring regulations to TB/MBC.
- June ??, 2017- Energy to bring regulations to LRC/Cabinet.
- July 1st, 2017- the remaining Fair Hydro Plan reductions and programs would take effect. Programs that are not established on this day for technical implementation issues will have benefits that are retroactively applied to customers once program is operational in individual LDCs.

Commented [HT11]: Energy: Pelase refine

How will the changes be communicated?

Commented [HT12]: CO and Energy Comms to review.

On March 2, 2017, the Premier made a high profile announcement of additional relief to reduce electricity costs for Ontarians. Coinciding with this event, there was news releases with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Building on the previous announcements, on May 11, 2017, the Premier is to make a high profile announcement of the plans to introduce the necessary legislation to implement Ontario's Fair Hydro Plan to provide additional relief to reduce electricity costs for Ontarians.

Given the risk identified that the GA financing may have a fiscal impact, communication will need to be clear that the proposed draft legislation meets the legal, accounting and financial requirements to not have a fiscal impact.

Notes and Recommendation from LRC

LRC item direct to Cabinet.

Cabinet Office Analysis

The proposed legislation allows for the implementation of the main elements of Ontario's Fair Hydro Plan announced March 2 to provide further rate relief to Ontario electricity ratepayers. The Global Adjustment (GA) smoothing proposal will provide 25% in rate relief in aggregate (including the 8% announced in 2016) for eligible consumers of the Regulated Price Plan (RPP) between July 1, 2017 and April 31, 2018 ("The Fair Adjustment"). Electricity rates would then change by amounts prescribed in the regulations under the bill, with the intention to keep rate increases in line with Consumer Price Index (CPI) between May 1, 2018 and April 30, 2022.

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the summer of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement, and conservation. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and, Ontario's Fair Hydro Plan combined with new policy or program announcements in the LTEP, will provide the comprehensive future planning perspective for Ontario's energy sector.

Commented [AP13]: The 25% is an average or for every customer?

Commented [BA14]: Should sentence read "…25% in rate relief on average…"?

Commented [HT15]: Need to add estimate of benefits from the other programs, particularly RRRP as I think the impact, along with GA, is going to be closer to 40 or 50% for some customers

Commented [HT16]: Confirm with PO and Energy

1. Refinancing the Global Adjustment

The proposed legislation establishes the framework to defer some of the current GA costs to future ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The methodology is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to continue to be able to utilize and benefit from these assets, and that they will also reduce the need to finance the development of new generation assets in the future.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations leaves the process more susceptible to constitutional challenge and could jeopardize the nature of the clean energy adjustment being a regulatory charge, and risk it being deemed an unlawful tax. The bill has been drafted to mitigate this risk and clearly articulates the desire to fairly attribute intergenerational costs and benefits. In addition the bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. (See page 16- Legal Risk)

Key elements of this component of the bill include:

Fair Adjustment

- July 1, 2017- April 30, 2018- the bill outlines an immediate 25% reduction (on average) in rates for eligible consumers in recognition of the investment in clean energy initiatives since 2005.
- May 1, 2018- April 30, 2022- the bill allows for rates to be set by regulation, with the intention that rates will increase in line with CPI over this time, consistent with government commitments. (See page 17- Fiscal Pressure)
- Ontario Energy Board (OEB) would calculate appropriate adjustments for "specified consumers".

Clean Energy Adjustment

- Determined by Ontario Power Generation (OPG) as the Financial Services Manager, the clean energy adjustment is the amount that will be recovered from consumers in the future to pay principal~~e~~, interest, transaction costs and administrative costs associated with the fair adjustment (regulatory/investment asset).
- Will be subject to true-up process that will reconcile actual amounts collected with expected amounts.
- May 1, 2022- April 30, 2047- to be invoiced to consumers and collected as part of the electricity bills through existing Independent Electricity System Operator (IESO) and Local Distribution Companies (LDC) processes.
- In accordance with the regulations, the OEB to set the rate at which "specified consumers" are invoiced to recover the clean energy adjustment.

Fair Allocation Amount

- The fair allocation amount is calculated by the Financial Services Manager consistent with the principles of the bill.
- Established for the purposes of allocating the costs of the clean energy initiative to provide inter-generational fairness to rate payers; and aligning funding obligations that may be incurred during each reference period (typically every 6 months).

Commented [AP17]: OPG intends to recover interest costs every year through the Trust in order to pay the interest payments from debt sourced from the capital markets. Thus, the clean energy adjustment charge would start in 2017, not 2022.

Commented [SQ218]: I had this comment initially too but the opposite side to this is that they will simply capitalize those costs and will result in increased financing requirements over the first 4 years.

- Provided to the Minister of Energy who will ensure that the information is made public in an appropriate way.
- Principles established in the bill require proper match over time between the costs of providing facilities for clean electricity generation and conservation and the consumers who benefit from these investments in the system. (Page 16- Legal Risk; See page 17- Fiscal Pressure)

Financing Plan

- Prepared by the Financial Services Manager to determine if potential funding obligations should be incurred to acquire an investment interest in accordance with the bill.
- Provided to the Minister Energy who may remove the Financial Services Manager if the Financing Plan is not consistent with the principles of the bill and the Financial Services Manager has been given the opportunity to address the Minister's concerns.
- May be amended as determined by the Financial Services Manager.
- In practical terms, the Financing Plan is intended to show how debt (with varying degrees of incurrence dates, maturities, interest rates) will be used over time.
- The OEB would review the administrative costs of the Financial Services Manager.

Regulatory Asset and Investment Asset

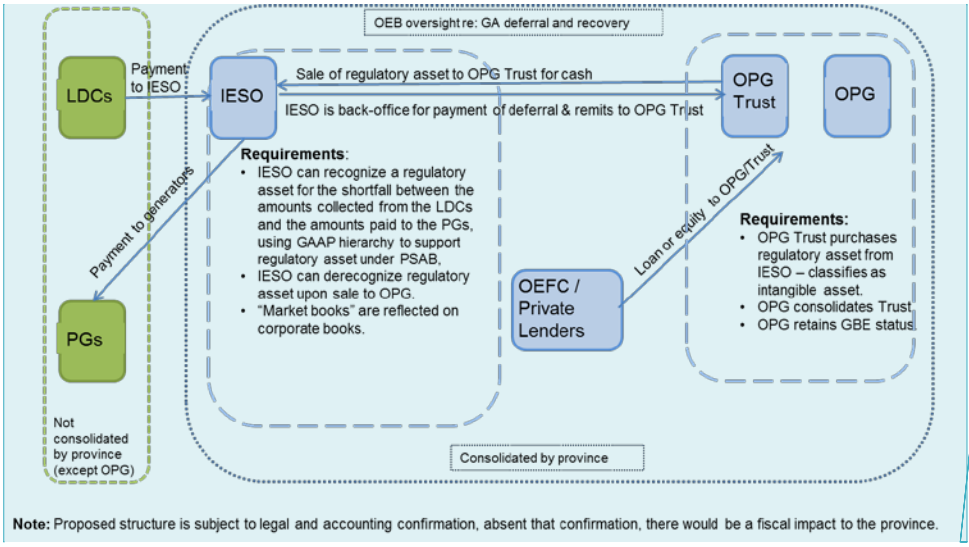
- Regulatory Asset created as IESO incurs a funding shortfall equal to the difference between the rates it receives after the implementation of the Fair Adjustment and the amounts owed under generation and conservation contracts (i.e. the comparison rate minus rates after fair adjustment).
- Subject to OEB approval, IESO would record the funding shortfall as a regulatory asset. IESO would also have collection rights to recover the funding shortfall, which may be sold. Collection rights are deferred until May 1, 2022.
- The Financing Plan contemplates the Financial Services Manager establishing financing entities (OPG Trust/Special Purpose Vehicle (SPV)) to buy the regulatory asset and the associated rights in exchange for a payment to the IESO. IESO would use the payment to offset the funding shortfall.
- This purchase and sale turns the regulatory asset into an investment asset. The transfer includes the rights to collect amounts related to the clean energy adjustment in a manner consistent with the bill.
- The investment interest owner may further sell all or a portion of its rights and interests including by dividend or undivided interest, consistent with the Financing Plan. An investment interest owner may also grant a security interest over all or a portion of its right, title and interests to secure a funding obligation.

Commented [AP19]: Is this a different point from Ernst & Young advice OPG must have the ability to appoint and remove the Trustee (or Board of Trustees), with no veto right by the Province. No party shall have the ability to remove OPG from its role and authority in the SPV.

- After 5 years (May 1, 2022) the IESO has the rights to collect its funding shortfall from ratepayers in the event that a portion of the regulatory asset is not bought and sold. (See page 17- Fiscal Pressure)
- The rights associated with the investment asset require IESO and LDCs to collect money from rate payers as agent of the investment asset owner.

Crown Undertaking (Guarantee or Backstop)

- The Crown would undertake not to do anything to adversely affect an investment asset or funding obligation, including hinder, impair, prejudice the charging, collection or remittance of the clean energy adjustment.
- The Minister of Energy, with LGIC approval, may enter into agreements for compensation with any person in respect of the bill.
- The Minister of Finance, with LGIC approval, may agree to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.



Commented [HT20]: Energy: Please provide updated chart with terminology from the legislation embedded.

The bill establishes a structure in which the IESO records the GA cost recovery deferral is recorded as a regulatory asset (regulated by the OEB), supported at its foundation by the fact that the refinancing of the GA is not a reduction in the GA, but rather a deferral to be collected at a future time ("The Fair Adjustment"). Eligible consumers would receive a 25% reduction in electricity rates from July 1, 2017 to April 30, 2018. The IESO may then sell the regulatory asset, at which time it becomes an investment asset. The investment asset owner (OPG Trust/SPV or trust "financing entities") may then further sell or

Commented [HT21]: Section to be compared against the legislation's compendium when available.

securitize all or part of the regulatory asset to other parties in exchange for a funding obligation.

Under the proposed framework, OPG, acting in its role as the "Financial Services Manager", and following the principles in the bill, would regularly calculate the "Fair Allocation Amount" to ensure a proper match of the allocation of the intergenerational costs and benefits. To recoup the costs associated with the fair adjustment, consumers, starting in May 2022 would be invoiced the "Clean Energy Adjustment" on their electricity bills through existing IESO and LDC processes. The OEB would set the rates at which the clean energy adjustment could be collected.

OPG is planning to create a SPV or Trust to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the SPV/Trust. The variability will likely largely result from the financing of the SPV/Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

OPG Trust/SPV will ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province (See Table 1 on page 4) and external financing through a securitization of the investment asset. The structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. The proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

The legislation commits the government to backstop the financing if the government were to ever hinder the collection of the clean energy adjustment including revoking or changing the legislation or regulations. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to occur. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time, but could be as high as $1-1.5B annually [TBC]. It should be noted that the external borrowing by the OPG Trust will be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future.

The proposed structure has been extensively reviewed by KPMG (Energy advisor and IESO auditor), and the firm has provided an accounting opinion confirming the validity of the structure under PSAB [TBC]. This opinion can be made public [TBC] to support the governments rational for the plan. In addition, MAG and Blakes are confident that the structure is constitutionally sound, but that this will depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism. Based on the current analysis there is a moderately high risk that the GA financing will have a fiscal impact on the Province before 2022.

Commented [SQ222]: Has this been a plan to defined? Annually? Semi-annually? Monthly?

Commented [SQ223]: This should be prefaced with the fact that this risk only arises after OPG would have decided to purchase the Regulatory Asset from IESO, which it is not obligated to do so.

Commented [SQ224]: This is focussed on accounting fiscal impact but cash flow impact is still present. Province would require cash to pay for IOD and unless those higher earnings (re: cash) is divdended back to Province to cover IOD payments, my guess would be that there is a fiscal impact in terms of IOD.

Commented [HT25]: Based on commentary from implementation meetings. Don't believe this includes estimates of private lender borrowing costs. Please advise

Commented [SQ226]: Furthermore, this would likely be the "additional" impact. The Province's equity injection, which is currently offset by expected higher earnings, would cease to exists resulting in fiscal impact as well. Could result in $2-3B annually. Please confirm.

Commented [HT27]: Energy to confirm

For clarity: the following structural requirements have been met: [TBC]

Commented [HT28]: TBC based on receipt of professional opinions etc.

- IESO requirements :
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB;
  - IESO can derecognize regulatory asset upon sale to OPG;
  - "Market books" are reflected on corporate books; and,
  - OEB to act as regulator.

Commented [SQ229]: Currently, I don't believe this is the case for IESO. Will this be the case going forward?

- OPG requirements:
  - OPG Trust/SPV purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust/SPV; and
  - OPG retains GBE status.

However, despite the fact that the structure has satisfied the legal, fiscal, and accounting requirements outlined in the policy submission, there remain some fundamental risks that the province would need to accept:

- The structure is unique in Canada and possibly the world, which increases the risk or unknown factors impacting its performance. The use of securities mechanisms to address debt is more common in the Unites States, but officials are currently unaware of any example that would compare to the size, complexity, or fluidity of what is proposed;
- Complexity of the structure and length of deferral/recovery increases risk and decrease transparency;
- Government would have no ability to control electricity prices resulting from these changes outside of recourse to the fiscal plan;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work and will have limited control over OPG's direct operations as the Financial Services Manager. While removal of the Financial Services Manager is provided for in the bill, in practice this may prove problematic once the system is operational; and
- Private lenders and rating agencies may disagree with the assessment of the size of the Fair Allocation Amount which would increase the risk of the asset and therefore its saleability. Could decrease amount of rate reduction achievable under this mechanism.

2. Enhancing electricity supports for vulnerable Ontarians and shifting costs from rate payer funded to government funded:

Moving the Ontario Electricity Support Program (OESP) to the tax base:

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The

program was launched in January 2016 and has had roughly 30% enrolment. Consistent with Cabinet direction, the program was recently expanded to increase the existing benefit scales by 50% and provide additional credits to more households.

Under the expanded program the basic OESP benefit scale increased from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers.

The proposed bill amends the *Ontario Energy Board Act, 1998* to allow for the program to transition from the rate base to the tax base, and become administered by a Ministry or other entity as may be prescribed. The cost to the fiscal plan would be $186M in 2017/18. The bill provides further amendments designed to allow information sharing between the Ontario Disability Support Program (ODSP) and the entity responsible for OESP. The intention is that this information sharing will allow for the automat enrolment of individuals that are already enrolled under the ODSP, but it is currently unknown to what extent this will significantly impact the enrolment under the program.

Commented [HT30]: ENERGY: do you have any numbers on this point? Were other programs considered other than ODSP? Can we put something in about continuing efforts to improve the enrolment?

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a distribution rate protection program and the ability to cap the distribution charges of prescribed distributors. The amendments also establish that this program will be funded by the tax base.

The intention is to draft regulations permitted under this section of the bill to Harmonize the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to

for that LDC to receive RRRP. These enhancements are expected to benefit approximately 800,000 customers in Ontario.

Targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $344M in 2017/18, $243M of which is a transfer of existing programs to the tax base. If the legislation and required regulations are passed, the program would become active as of July 1, 2017. It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Commented [HT31]: Need new estimate of transferred program cost starting from July 1.

On-reserve First Nations Delivery Credit

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a tax base funded delivery credit program for on-reserve customers with the details as prescribed in the regulations. The intention is to enact regulations that would eliminate the delivery charge for all on-reserve First Nation household customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.

Eligible recipients would be automatically enrolled in the program (~21,500 customers) and receive an average monthly benefit of $85. The program will cost approximately $20M annually and, provided the legislation and regulations are passed, would become effective July 1, 2017. It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Expected Impacts of the Proposal on Electricity bills:

The impact of proposed legislation to an eligible customer's bill in July 2017 is an average 25% decrease (combined with the 8% from ORECA effective Jan. 1, 2017), followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017. Between May 2018 and April 2022 electricity rates will be set by regulation with the intention that rate increases would be kept in line with CPI. Customers that are eligible for the RRRP enhancements and the OESP will see further reductions in their electricity rates beyond the 25%

Commented [HT32]: ENERGY: Can you provide analysis on the impact for customers that will receive the RRRP etc?

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

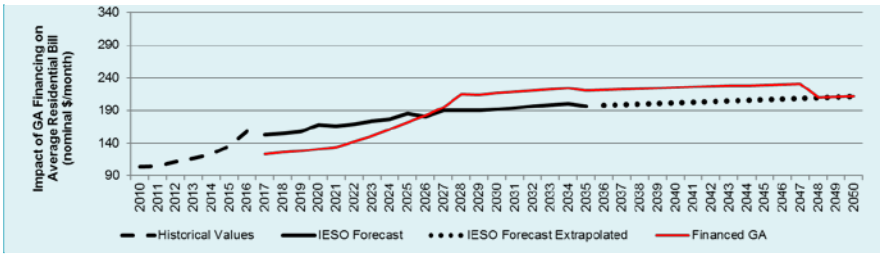
Commented [HT33]: Energy to provide updated chart

Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.*

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on the GA deferral portion of the plan, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future outside of recourse to the fiscal plan.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

Commented [HT34]: ENERGY to confirm if this needs to be updated.

The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future. To mitigate against the risk that increased self-generation poses, the bill provides that the Clean Energy Adjustment may not be "set-off". In other words, it would exist as a separate and distinct component of the bill that could not be reduced by methods such as net-metering.

Not all generating assets will continue operations at the end of their contract. If the Fair Allocation Amount is not properly designed, future rate payers will be paying the cost for assets that are no longer in use, which would be unconstitutional (See page 16- Legal Risk). High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. The structure of the GA deferral was designed to result in an (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on

funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result. The structure is also contingent on the size of the GA deferral that is seen as possible, which, as previously mentioned, increases the likelihood of pressures on the fiscal plan in the near future. (See page 17- Fiscal Pressure)

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

The Ontario Auditor General (OAG) has been briefed on the proposal and has had access to the March 1, 2017 policy submission for the Fair Hydro Plan. While the auditors of OPG and IESO have provided their assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief [TBC] can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

Commented [HT35]: To be updated when Navigant prelim report and OPG analysis complete

Legal Risk – constitutionality of financing the GA

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

Former Supreme Court Justice Binnie has provided legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge

(and would be characterized as a tax).Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities. By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The bill has been drafted to mitigate the constitutional risk of the proposal and clearly articulates the desire to balance the costs and benefits of assets across generations. The bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. In addition, external consultant Navigant has provided an interim report on the costs and benefits of the long lived assets which supports the previous conclusions regarding the size of the GA deferral that would be supportable. This is further supported by the conclusions of OPG's independent analysis of the question.

Commented [HT36]: TBC

Commented [HT37]: ENERGY please confirm. Need to clearly articulate any differences that may exist between these analyses

MAG and Blakes are confident that the structure is constitutionally sound, but, as identified above, that this will highly depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism.

In addition, the structure of the GA refinancing means that the infrastructure included as part of the clean energy adjustment (i.e. amortized over 30 instead of 20 years) will need to be in service over the entire 30 year amortization period or provide benefits to the system in some way over the whole period. In practice this may mean that the government will have limited ability to alter the generation mixture included under the clean energy adjustment, including natural gas generation facilities, which may at some point be seen as inconsistent with the province's commitments to reduce greenhouse gasses. This risk has been mitigated in the bill, by allowing for prescribed natural gas generation contracts to be excluded from the clean energy benefit calculation.

Commented [HT38]: Needs ground truthing

Fiscal Pressure

Commented [HT39]: TBS please review closely

This proposal aligns with the 2017 Budget fiscal plan, but involves significant ongoing risks. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.
- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government has commissioned external opinions on the legal, fiscal, and accounting requirements. Energy's advisor and IESO auditor, KPMG, has provided an accounting opinion that the principles of the structure are sound, and this opinion can be released publicly when desired. This opinion may not change the likelihood of a contrary opinion by the OAG, but does provide a tool for government to point to in justifying its decisions.

Commented [HT40]: TBC

There is also a risk that credit rating agencies and the market may take an alternate view as to the size of the GA deferral that is possible before becoming unconstitutional. If the Fair Adjustment exceeds this analysis, it may increase the perceived risk of the investment asset and therefore its saleability, which would result in reduced market uptake and reduce the amount of near term rate reduction that would be achievable under the plan. This is why the increases in electricity rates between May 2018 and April 2022 are to be set by regulation as opposed to legislating that they increase by CPI. It may not be possible to legally hold the rate reductions to increase by CPI, and if the government wanted to hold to this commitment, the difference would need to come out of the fiscal plan, which has not been forecasted. Each percentage point of reduction that the structure cannot provide would result in an approximate $150M [TBC] cost to the tax base. This has not been provided for in the bill, but it is likely that the government will receive questioning along these lines and why the previously committed CPI increases are not explicitly stated in the bill.

Commented [HT41]: Needs ground truthing

There may be also some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG was provided copies of the Cabinet Submission seeking policy approval for Ontario's Fair Hydro Plan and has been briefed by officials from the Ministry of Energy. The OAG will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

Commented [HT42]: Energy to update.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Commented [HT43]: Energy to update from discussion with FAO

OPG Mechanism

- Accountability
  - Bill attempts to balance the independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
  - Accountability to the government or the public, amount of government control of the entity, including future rate increases.

Commented [HT44]: Needs to be recast given limitation on control after initiated

- New structure
  - Structure is complex, involving:
    - IESO as originator of the regulated asset and responsible for flow of funds;
    - OEB as regulator of the new mechanism;
    - OPG responsible for financing and managing the mechanism; and
    - The Province providing ongoing equity capital infusions to OPG and backstop.
  - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).
  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs. OEB would review OPG's cost as the Financial Services Manager
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

Program Design and Implementation

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake)
- The OESP matrix no longer follows the Low Income Measure (LIM) which creates inconsistencies between how programs are applied and may put pressure other provincial programs to increase funding amounts.

Benefits for all Consumer Classes

The Fair Hydro Plan includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) and other targeted relief for vulnerable Ontarians, but likely to question the longer term implications. Some individuals and organizations will perceive the GA smoothing as unduly burdening future generations. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to “keep electricity rate affordable”. Will likely respond positively to the recent changes to expand ICI eligibility to some manufacturing and greenhouse Class B customers, but may be more neutral the remainder of the initiatives.

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Commented [HT45]: Confirm work still ongoing on this piece

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Métis, non-status, First Nations without reserve land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – May react negatively towards any price relief that is not directly tied to energy conservation. May criticize the inclusion of natural gas electricity generation as part of the "Clean Energy Adjustment."

Solar PV sector – May react negatively to price relief as it can be seen to undercut the affordability of distributed renewable generation assets such as solar PV, and undermines the economic arguments behind net metering.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

If passed, the legislation will enable the price mitigation measures to begin to take effect on July 1, 2017. The 2017 LTEP will be released to the public in the summer 2017 and would reinforce/integrate with Ontario's Fair Hydro Plan. Regulations are required under the major components of the legislation in order to fully implement the initiative and clarify program details.

Commented [HT46]: TBC

1. **Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs**

Consumers will see an immediate reduction of their electricity bills as of July 1, 2017. The establishment of the regulatory asset and purchase by OPG is expected to take three to six months to implement following the introduction of enabling legislation.

Commented [HT47]: This needs more elaboration and confirmation. Last discussion I was part of on this point hadn't landed exactly how long it is expected that the IESO retains the Reg Asset for before sale to OPG.

2. **Enhancing Social and Conservation Programs**

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate). The amendments made in this bill allow for a transition period where the program continues to draw on the existing IESO variance account until the account can no longer maintain the program. IESO is required to notify the Ministry of Energy when it expects the variance account to be depleted (likely sometime in the fall). At this time

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the changes to this program (delivery mechanism, funding source, application system, eligibility).

Commented [HT48]: Requires update

RRRP Enhancement

Regulations would be required to establish the details of the program. OEB estimates that the implementation would take at least six months after finalizing regulations. For this reason it is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st which will put an immediate pressure on the OEB and LDCs as implementation is required no later than October 1, 2017. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

On-Reserve First Nations Delivery Credit

The OEB would need to work with the LDCs to identify the eligible on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Once available, the rebate would appear on customer's electricity bills as a reduction in, or credit for, their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in summer-fall 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – On January 1, 2016 the government ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, and put in place the low-income targeted OESP, effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Industrial Conservation Initiative – Ministry of Energy program implemented in January 2011 to help large industrial consumers reduce their electricity costs by shirfitn electricity consumption away from peak periods. As part of the Fair Hydro Plan, ICI eligibility was recently expanded to allow for the participation of the manufacturing and greenhouse sectors with an average month peak demand greater than 500 kilowatts (kW) and less than or equal to 1 megawatt (MW). ICI benefits all electricity consumers by decreasing the need for costly peaking generation over the long term.

Affordability Fund – approved as part of Ontario's Fair Hydro Plan, and under development, the Affordability Fund is intended to expand access to conservation funding to targeted consumers that do not currently qualify as low-income for the purposes of the Home Assistance Program (HAP).

Commented [HT49]: insert

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs. The Green Ontario Fund (GreenON)- is tasked to develop programs and services designed to:

- Reduce greenhouse gas emissions from housing from buildings and the production of goods; and

- Increase uptake and overcome market barriers of low-carbon technologies and processes.

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

Commented [HT50]: To get updated language on the RTA amendments

Proposed Cabinet Minute

Approval of draft bill for introduction

Cabinet approved version XX-XX of this draft legislation for introduction, subject to the following:

1. The Office of Legislative Counsel is authorized to prepare a French version and to make minor adjustments to the English version, for the purpose of ensuring consistency between the two versions and making other improvements or correcting mistakes discovered in the translation process.

From:	Adam Prokop
To:	Bruno Amara; Salman Qadir; Shajee Kathirgamanathan; Carlos Yep; Mike Manning; John Kim; John Psinas; "Montgomery, Kaitlin (MOF)"; Tobias P. Whitfield (MOF)
Subject:	Equity Financing - Working Group Note
Date:	Tuesday, April 04, 2017 10:38:29 AM
Attachments:	BN - GA Equity Injection Structure v6_Markup2Clean.docx

Greetings,

Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2R1]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- Longer term debt will be issued as soon as possible, subject to market timing constraints.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK5]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK6]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC7]: Not quarterly?

Commented [JK8R7]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ210]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From:	Adam Prokop
To:	Shajee Kathirgamanathan
Cc:	Bruno Amara; John Kim
Subject:	Equity Injection
Date:	Thursday, April 06, 2017 11:40:37 AM
Attachments:	Equity Injection - Additional Concerns.docx

Hello Shajee,

Here is my first stab at the rough draft for tomorrow's discussion.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

GA FINANCING – EQUITY INJECTION ADDITIONAL CONCERNS

PROVINCIAL CREDIT RATING

- One of the results of the GA financing mechanism is that a significant amount of the borrowing (56%) will be done directly through OPG (5%) and the special purpose vehicle OPG Trust (51%).
- Since OPG is a Government Business Enterprise (GBE), it is consolidated into Public Accounts using the modified equity method.
    - This means that for the balance sheet, only the net assets are reported (assets – liabilities) in one line item.
- If OPG were to lose its GBE status, then it would be consolidated line-by-line onto the Province's books.
    - OPG Trust would also likely be consolidated onto the Province's books since it is an SPV that OPG has a variable interest in.
- It is unclear how the effect of consolidation will have on the Province's credit rating or publicly reported debt ratios, but for Public Accounts, the 56% portion of debt would be represented on the Province's balance sheet.
    - OPG's regulatory assets and nuclear liabilities & assets would also have to be consolidated with the Province.
    - Any debt on OPG's books loaned by OEFC would be consolidated on a net basis, with the receivable owed by OPG to OEFC effectively netting out the payable from OPG.
    - Thus, only external debt that OPG borrowed from outside the province would appear on a consolidated basis.
- Maintaining a strong credit rating is of crucial importance to the Province to keep borrowing costs low for all initiatives, keep investors' confidence high, and to keep the GA financing structure viable for the benefit of ratepayers.
- Having OPG maintain its status as a GBE and commercial enterprise is also critical for the viability of the GA structure including the classification of the Trust as a SPV.

GBE STATUS RISKS

- The equity injections (monthly) from the Province to OPG may be considered a subsidy due to the frequency and large total amount.
    - A GBE receiving subsidies frequently for a long period of time (in this case monthly and for several years) may threaten the GBE status since the GBE could be portrayed as being reliant on government funding.
    - The fact that this amount is only 44% of the GA structure and that OPG Trust is a SPV separate from OPG's other businesses helps mitigate this risk.
- It may be necessary to quantify the overall return from the GA financing structure to the Province to ensure that the Province is "made whole".
    - There is a cost of borrowing associated with the 44% equity injection.

    - If the return from the GA Financing structure is below this amount, the economic rationale behind the equity injection may be lacking.
    - The risk attached to the equity injection (and its eventual composition of the subordinate debt of OPG Trust) may also have to be quantified as a return when considering the feasibility of the initiative.
    - [For example, the economic rationale behind the Hydro One one-time equity injection was that it would help maintain Hydro One's valuation for the IPO. If Hydro One had borrowed debt instead, its value could potentially be lower, leading to lower proceeds to the Province. Taking valuation multiples into consideration, every dollar in equity injected likely resulted in a significantly higher return than a dollar].
- If the Province is not being seen as being compensated for its risk behind the equity injections, then the equity injections could be viewed as a subsidy.
- Having a redeemable feature on the equity injection for the Province, with a properly valued premium, could allow the Province to be made whole.
    - Would also allow the return of capital to the Province to help settle its external debt obligations related to the equity injection.
- If the equity injections were in the form of preferred shares with a cumulative dividend, it could allow for frequent cash inflows from OPG to the Province.
    - The shares could be redeemable at par after a certain lock-up period (similar to Hydro One Series 1 and 2 preferred shares).
    - However, credit rating agencies may consider this as a form of debt which could affect OPG's credit ratings or the Trust's ratings.
    - The dividend yield would have to reflect, to a certain extent, the risk or cost of the Province.

BORROWING

- The timing and maturity of debt issuances from the Province to capital markets in order to fund the equity injections are complex issues.
    - Need to consider if and when capital is being returned from OPG and the settlement of principal.
    - Need to consider how to optimize borrowing to lower the long-term costs to the Province.
- There are bondholder concerns over the limited hedging opportunities.
- There are bondholder concerns over the status of the regulatory assets in terms of the collateral used for bond issuances.
    - If the Trust defaults, what recourse is left for bondholders – are the intangible assets in the Trust with the rights to collect from ratepayers enforceable?

LEGISLATION

- Legislation is still determining the actual rate to be charged to ratepayers. In the most recent shared draft, a few options were being considered:
    - Interest and other financing (e.g., admin costs), as well as the principal portion of the GA financing when those payments commence.

- The ability for OPG to earn a return, i.e., a higher rate charged to ratepayers than the actual total financing and principal costs.
- The ability for OPG to earn a return, but with a cap on profits.

From:	Bruno Amara
To:	Francisco Chinchon; Darren Scanlan
Cc:	John Kim
Subject:	Equity Injection Note
Date:	Wednesday, April 12, 2017 11:03:36 AM
Attachments:	BN - GA Equity Injection Structure_Apr12.docx

Hi Francisco/Darren

Attached is latest equity injection note which pulls together the various discussions to date, including the note that you had sent to us previously regarding the H1 process. If you could review, perhaps we could discuss later this afternoon as your time permits. I think next step would be to review with folks upstairs who are on the equity working group (Carlos, Mike Manning, Jim Devine).

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

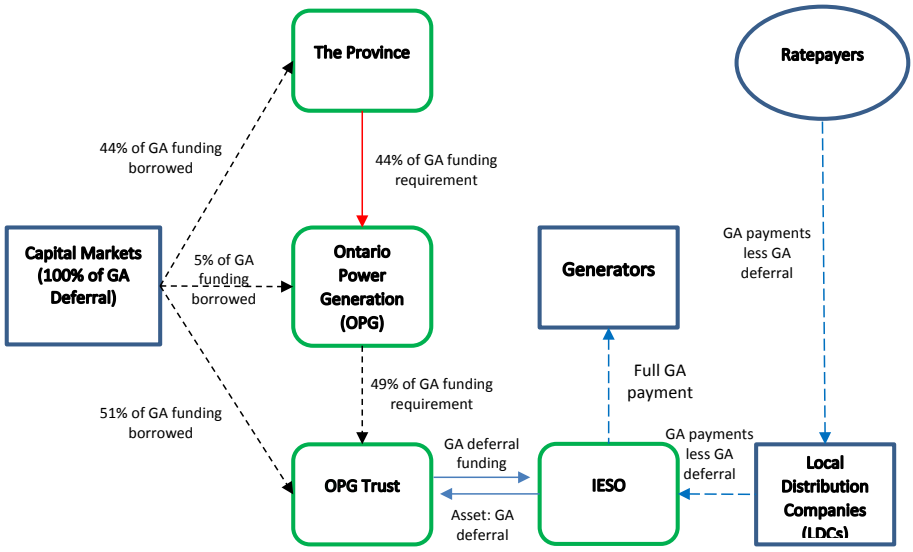
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG. In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]
- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [JK1]: I think this is because the financing and administrative costs would be recovered through ratepayers?

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

    - The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of

legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares return.

    - Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province

Commented [JK2]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [JK3]: "in" missing in front?

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

3. Redemption of Shares at a Premium

   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.

- Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From: Ken Kandeepan
To: John Kim
Cc: Ronald Kwan; John Psinas; Christina Zhang; Carlos Yep
Subject: Equity Injection WEorking Group
Date: Friday, March 17, 2017 11:58:10 AM

Hi John

As discussed pls include John Psinas as a member of this working group. John will ensure that all debt related accounting issues plus cash flow/cash management considerations are addressed, until there is a representative from OPCD, he can also ensure that any accounting issues that relate to the Province are communicated in a timely fashion to OPCD for resolution.

Thanks

Ken k

From:	Bruno Amara
To:	John Kim
Cc:	Shajee Kathirgamanathan; Adam Prokop; Salman Qadir; Gavin He
Subject:	Equity Injection note
Date:	Tuesday, April 11, 2017 5:24:29 PM
Attachments:	BN - GA Equity Injection Structure_Apr10 v6.docx

Hi John,

Attached is draft Equity Injection note for your review.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

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Thie Province ~~would be required to~~is moving ahead with its support for the Global Adjustment (GA) ~~f~~smoothing mechanism~~inancing plan~~. ~~by~~Under the mechanism, ~~-~~the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), ~~that would~~ representing 44% of total GA financing requirements. This document ~~serves to~~ provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the P~~p~~rovince to implement the equity injections. ~~implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.~~

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GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG ~~will~~ would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years.~~the "right to collect" assets from the IESO in return for cash proceeds.~~ IESO would use the cash from the OPG Trust~~,~~ to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process

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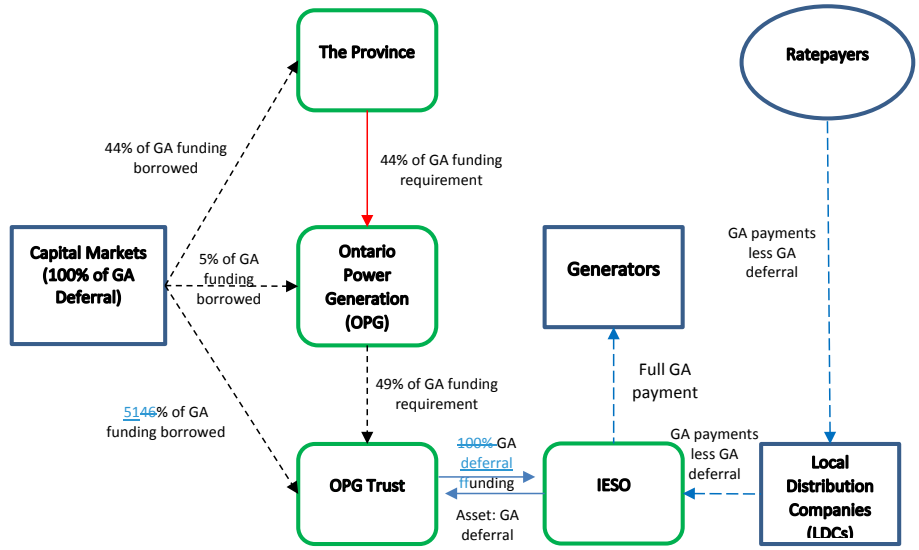

~~OP~~OPG Trust w~~ould ill be structured to~~ finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. ~~OPG would contribute the remaining 49% as subordinated debt.~~

The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

~~Annual payments will be received by~~ OPG Trust would recover ~~for~~ financing and~~&~~ administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?].

~~STAFF COMMENTS: UNCLEAR IF THESE FINANCING COSTS/ANNUAL PAYMENTS WILL BE RECEIVED BY OPG TRUST [TBC: FROM IESO OR RATEPAYERS DIRECTLY]?~~

~~THE MECHANISM BY WHICH THE FINANCING IS CONDUCTED IS YET TO BE FINALIZED. BOTH OPG ON BEHALF OF OPG TRUST AND THE OFA ON BEHALF OF THE PROVINCE ARE SEPARATELY LOOKING TO ENGAGE 'FINANCIAL ADVISORS' FOR THE PURPOSE OF DETERMINING OPTIMAL FINANCING STRUCTURES, E.G. DEBT COVENANTS, TERMS AND CONDITIONS SUCH AS IF TO BE CALLABLE, REDEEMABLE, ETC. [ALSO SEE BELOW.]~~

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Commented [AP1]: From IESO according to white paper who would collect the payments and remit to OPG.

Commented [BA2]: Also confused about comment: Should that be "…..received by OPG Trust"

Commented [AP3R2]: Yes, you are right. Corrected.

Commented [JK4]: Check with SIFB or CMD on the right terminology.

Commented [FC5]: To me this is part of the terms and conditions

~~BORROWING~~

- ~~THE 51% FINANCING CONDUCTED BY OPG TRUST AND THE 5% FINANCING VIA OPG WILL INITIALLY BE FINANCED THROUGH A SHORT TERM CREDIT FACILITY WHICH WILL BE OBTAINED BY OPG. OPG HAS COMMUNICATED THAT THIS MAY BE THROUGH SHORT TERM DEBT, RAISED FROM THE CANADIAN MONEY MARKETS.~~

  - ~~OPG STAFF FURTHER CLARIFIED THAT THIS WOULD BE FACILITATED THROUGH A NEW FACILITY AND TO BE PUT IN PLACE BY OPG TRUST AND NOT ANY OF THE EXISTING FACILITIES OPG CURRENTLY HAS IN PLACE.~~

- ~~LONGER TERM DEBT WILL BE ISSUED AS SOON AS POSSIBLE, SUBJECT TO MARKET TIMING CONSTRAINTS.~~

  - ~~OPG TO RETAIN 3 DEALERS TO ADVICE ON THE LONG TERM BORROWING AND FINANCING OF THE GA.~~

  - ~~THE OFA IS ALSO EXPECTED TO RETAIN A DEALER TO PROVIDE DUE DILIGENCE AND INDEPENDENT ADVICE FOR THE PROVINCE'S EQUITY INJECTION [TBC] INTO OPG AND LONG TERM BORROWING BY OPG TRUST [TBC].~~

- ~~THE LONG TERM DEBT ISSUED BY OPG TRUST MAY ALSO BE CALLABLE TO BUY BACK THE BONDS ONCE THE FINANCED GA STARTS TO BE REPAID. [TBC]~~

EQUITY INJECTION PROCESS OVERVIEW ~~MECHANISM~~

~~OVERVIEW~~

- IESO proposes that OPG Trust would purchase the GA~~E~~ deferral asset on a monthly basis. The ~~The~~ Province would, therefore, be required to ~~is expected to~~ provide monthly equity injections to OPG.
- In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of ~~at a value of~~ $20 per share. [for discussion]

The proposed process would be as follows:

- ~~These share issuances currently environed~~ envisioned ~~to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].~~

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Commented [JK6]: Did I get this right?

Commented [FC7]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

Commented [JK8]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK9]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

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Commented [FC10]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP11]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

- This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
- Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
- [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).
- [TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below.

Process

- OPG Trust would receive the notice from the IESO to purchase the asset from IESO.
-
- The ProvinceOFA in turn would A notice would be received notice from OPG forby the OFA for to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]
-
- Separately, OPG and OPG Trust would take outraise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]
-
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

[let's make this as general as necessary]

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

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1. The Province would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

    - The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions would be made outside of legislation. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares return.

    - Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province

~~[HOW PROVINCE WILL RECEIVE RETURNS]~~MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

~~...~~Under the mechanism, the Province will be providing an equity injection into OPG ~~who~~that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

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Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection. The following methods could~~an~~ be utilized to ~~ensure~~allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG should have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection.

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers.~~.~~

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

~~Cumulative Dividend~~

~~The Province and OPG could~~

~~1.~~ Redemption of Shares at a Premium

Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing~~s~~. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

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3.

~~Other Considerations:~~

~~OPG will use the Province's equity injection to purchase subordinated debt from OPG Trust. The Province should be requesting the same return on its equity contribution as to the rate OPG receives from OPG Trust. This return could be higher than the Province's cost of funds.~~

~~Scenarios:~~

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

•

~~***END OF MAIN SECTION***~~

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THE TEXT BELOW IS EQUITY INJECTION DISCUSSION GATHERED FROM A COUPLE OF NOTES. LET'S REVIEW WITH EYE TO DETERMINING WHICH, IF ANY POINTS BELONG IN MAIN SECTION ABOVE AND ORGANIZING REMAINING POINTS.

OTHER PROVINCIAL EQUITY INJECTION ADDITIONAL CONCERNSCONSIDERATIONS AND RISKS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

these share issuances currently envisioned to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].

- This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
- Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
- [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).
- [TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below. OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection'inflection' point where the ratepayers start to pay down the deferred GA.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of theis proposed currently viewed as with no flow through of interest or dividends over timecouldincurr
  - or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Provinceassociated withborrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g. through a form of dividend reinvestment planA preferred equity structure

2) EQUITY INJECTIONS

KEY POINTS:

Commented [FC12]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP13]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

Commented [BA14]: I'll stand to be corrected by you CFA types, but in economics an inflection point is the point where a curve changes from concave to convex or vice versa. Here we are talking about two lines are crossing. Just want to make sure we have correct terminology so that we don't get called us out later by some (other) smarty pants.

Commented [SQ215]: How?

The pro-rata that occurs is on the IESO asset being purchased.
-The Province keeps its interest costs outside the Trust as its an equity injection.
-Assume OPG flows through its interest costs through operations?
-How does OPGT pay for debt-servicing cost of the debt it is raising?

Commented [AP16]: This is not necessarily true as an acceptable premium associated with the buyback feature would mitigate this concern. Maybe keep the subsidy issue separate as mentioned above? The main risk is that the Province will be paying several hundred millions to billions of interest over time with no cash flow from OPG. OPG in turn would have the same amount of cash on its books – either idle or used for their own initiatives.

Commented [JK17]: Explain. Is this risk to OPG Trust, OPG or the Province.

- The [legislation, corporate rules, corporate structure, by-laws etc.] that allow for equity injections should have consideration that it is in the Province's ***economic/financial interests*** to proceed with monthly equity injections in order to finance the trust, with appropriate return on risk.

- Equity injections can be viewed as a subsidy if the province is not compensated for its risks.

    - This may be mitigated with a redeemable feature for the equity at a properly valued premium.

- Consideration is also required for the Province's cash needs in order to finance the borrowing for equity injections.

    - This may be mitigated with ongoing dividend payments and/or a redeemable feature for the equity.

    - Issuance of preferred equity may allow for frequent, stable dividend payments, but may be viewed as OPG debt by credit rating agencies.

    - A redeemable feature would provide for sufficient cash for the province to pay back bondholders.

Details

- The monthly equity injections from the Province to OPG may be considered a subsidy due to the frequency and large outstanding balance.

    - A GBE receiving subsidies frequently for a long period of time (in this case monthly and for several years) may threaten the GBE status since the GBE could be portrayed as being reliant on government funding.

    - This risk is mitigated as only 44% of the GA structure is funded through equity injections and that OPG Trust is a SPV.

- It may be necessary to quantify the overall return from the GA financing structure to the Province to ensure that the Province is "made whole".

    - There is a cost of borrowing associated with the 44% equity injection.

    - If the return from the GA Financing structure is below this amount, the economic rationale behind the equity injection may be lacking.

    - The risk attached to the equity injection (and its eventual composition of the subordinate debt of OPG Trust) may also have to be quantified as a return when considering the feasibility of the initiative.

Commented [SK818]: Or maybe to put it another way, nothing here should preclude the Province's right to return a sufficient return on its equity investment given the risk premium.

Commented [SK819]: Where is this written? Can i have the source?

Commented [AP20R19]: IPSAS 1 defines a GBE as an entity that has all the following characteristics:
(a) Is an entity with the power to contract in its own name;
(b) Has been assigned the financial and operational authority to carry on a business;
(c) Sells goods and services, in the normal course of its business, to other entities at a profit or full cost recovery;
(d) Is not reliant on continuing government funding to be a going concern; and
(e) Is controlled by a public sector entity.

Commented [AP21R19]: From PSAB PS 3070
06 A **government business enterprise** is a government organization that has all of the following characteristics:
(d) It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity.
.30 A government business enterprise should, in the normal course of its operations, be able to maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity. These revenues include not only amounts from the sale of goods and services, but also transfers 3 received from other governments or sources outside of the government reporting entity.
.32 A government business enterprise differs from other government organizations in its relationship to the government, and its objectives, and operations. A government enterprise represents a financial asset of the government and given its autonomy, business-oriented objectives, and financial self-sufficiency, equity accounting is appropriate.

- [For example, the economic rationale behind the Hydro One one-time equity injection was that it would help maintain Hydro One's valuation for the IPO. If Hydro One had borrowed debt instead, its value could potentially be lower, leading to lower proceeds to the Province. Taking valuation multiples into consideration, every dollar in equity injected likely resulted in a significantly higher return than a dollar].

- If the Province is not being seen as compensated for its risk behind the equity injections, then the equity injections could be viewed as a subsidy.

- Having a redeemable feature on the equity injection for the Province, with a properly valued premium, could allow the Province to be made whole.

  - Would also allow the return of capital to the Province to help settle its external debt obligations related to the equity injection.

- If the equity injections were in the form of preferred shares with a cumulative dividend, it could allow for frequent cash flows from OPG to the Province.

  - The shares could be redeemable at par after a certain lock-up period (similar to Hydro One Series 1 and 2 preferred shares).

  - However, credit rating agencies may consider this as a form of debt which could affect OPG's credit ratings or the Trust's ratings.

  - The dividend yield would have to reflect, to a certain extent, the risk or cost of the Province.

From: John Kim
To: Ronald Kwan
Cc: Francisco Chinchon
Subject: Equity Injection
Date: Saturday, April 01, 2017 9:38:36 PM

Hi Ron,

I was thinking about the call I had with Toby last Friday. He was suggesting whether the CMD's proposal to hire narrow scope advisor is sufficient. That was essentially where he was going with his inquiries. While this is my assessment and nobody else's, I do wonder if there's scope for us to get more involved in the procurement process. Just throwing it out there.

Not sure how representative Toby's comments were (or if I'm reading them right) within MOF Legal but they seem to be concerned on the accounting focus of perhaps the advice thus far.

Also, happy to engage Francisco's group's expertise, as always.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From: John Kim
To: Ronald Kwan
Subject: Equity Injection
Date: Friday, April 21, 2017 11:07:02 AM

Hi Ron,

Ken had drafted a first cut of terms of reference to TD as advisor on the capital contribution…I've made significant edits. Would you mind if I send it back as staff level comments?

I believe it'd be sent out by CMD.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From: John Kim
To: Francisco Chinchon
Subject: Equity injection
Date: Saturday, April 01, 2017 9:35:05 PM
Attachments: BN - GA Equity Injection Structure v6_Markup.docx

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Comments would be welcome. This, surprisingly simple note, I think, is quite well done.

Thanks.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for OPG from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority are coordinating with Ontario Power Generation to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle ~~henceforth~~ referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be ~~required~~ structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms, specialized features such as callable, redeemable, etc. [Also see below.]

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets. OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.~~.~~
    - OPG to retain~~s~~ 3 dealers to advice on the long-term borrowing and financing of the GA.

Commented [JK1]: Not sure if we want to keep conveying that we're doing something to goal seek, regardless of original intent

Commented [AP2]: Legislation being proposed from the White Paper suggest that IESO would collect these payments to be remitted to OPG Trust.

Commented [JK3R2]: Also, confirmed through OPG staff.

Commented [JK4]: Check with SIFB or CMD on the right terminology.

Commented [JK5]: Did I get this right?

- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK6]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK7]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province ~~will~~ is expected to provide monthly equity injections to OPG
- In return, OPG ~~will~~ would issue new shares to the Province at a value of $20 per share.
- These share issuances ~~will~~ currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ28]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
March 30, 2017

From: Adam Prokop
To: Salman Qadir
Cc: John Kim
Subject: FHP - questions on taxation
Date: Thursday, April 20, 2017 9:49:14 AM

Questions so far

Three things to know

1. The legislation amendments are to ensure that the profits from the Trust are not taxed or part of the OEB rate-setting process.
2. The Financing Entity (OPG Trust) is intended to be excluded from deemed assets and liabilities (i.e., the rate base)
3. OPG will essentially be acting on behalf of the Financing Entity (no mention of how the Financing Entity will operate, e.g. with an independent board).

Questions

1. Section 53.1(1.) would have the assets and liabilities of the Financing Entity (OPG Trust) excluded from deemed assets for the OEB hearing. The equity injection from the Province (common or preferred) would not form part of the Trust – even if the cash received is given to the Trust, the equity remains on OPG's books until redemption. Will there be some reference to exclusion of these equity injections from the deemed debt/equity ratio?
2. The Financing Entity term has not been defined yet, but will the definition be a) flexible enough to incorporate another FE in case of a replacement event and b) narrow enough to prevent OPG from establishing another FE unrelated to the Fair Hydro Plan in order to avoid payments to OEFC?
    a. Section 53.1(1.2) is amended to state that OPG can create one or more subs/trusts/SPEs to **more efficiently conduct its activities** which could be outside scope of the FHP.
3. The amendment to Section 78.1 (4.1) would exclude all profits from the Financing Entity to OPG from OEB rate decisions – will there be a cap on this amount for reasonableness, or will the OEB ensure that profits earned are reasonable at another checkpoint (since it has been contemplated that an attestation for the financing plan from an officer of the Financial Service Manager could be used rather than an OEB review)?
    a. It looks like they are going the OEB route (**all fees charged by OPG as the FSM shall be approved by the OEB**) but just want to confirm if this is now the intended direction.
4. Should Section 89 of the Act also explicably state that losses from the FE could not be applied as a reduction to amounts owing to the OEFC?

Anything else Salman?

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462

adam.prokop@ofina.on.ca

From: Adam Prokop
To: Salman Qadir
Cc: Bruno Amara; John Kim
Subject: FHP - questions on taxation
Date: Thursday, April 20, 2017 9:50:24 AM

Questions so far

Three things to know

1. The legislation amendments are to ensure that the profits from the Trust are not taxed or part of the OEB rate-setting process.
2. The Financing Entity (OPG Trust) is intended to be excluded from deemed assets and liabilities (i.e., the rate base)
3. OPG will essentially be acting on behalf of the Financing Entity (no mention of how the Financing Entity will operate, e.g. with an independent board).

Questions

1. Section 53.1(1.) would have the assets and liabilities of the Financing Entity (OPG Trust) excluded from deemed assets for the OEB hearing. The equity injection from the Province (common or preferred) would not form part of the Trust – even if the cash received is given to the Trust, the equity remains on OPG's books until redemption. Will there be some reference to exclusion of these equity injections from the deemed debt/equity ratio?
2. The Financing Entity term has not been defined yet, but will the definition be a) flexible enough to incorporate another FE in case of a replacement event and b) narrow enough to prevent OPG from establishing another FE unrelated to the Fair Hydro Plan in order to avoid payments to OEFC?
    a. Section 53.1(1.2) is amended to state that OPG can create one or more subs/trusts/SPEs to **more efficiently conduct its activities** which could be outside scope of the FHP.
3. The amendment to Section 78.1 (4.1) would exclude all profits from the Financing Entity to OPG from OEB rate decisions – will there be a cap on this amount for reasonableness, or will the OEB ensure that profits earned are reasonable at another checkpoint (since it has been contemplated that an attestation for the financing plan from an officer of the Financial Service Manager could be used rather than an OEB review)?
    a. It looks like they are going the OEB route (**all fees charged by OPG as the FSM shall be approved by the OEB**) but just want to confirm if this is now the intended direction.
4. Should Section 89 of the Act also explicably state that losses from the FE could not be applied as a reduction to amounts owing to the OEFC?

Anything else Salman?

Kind regards,

Adam Prokop

Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Gavin He
To: John Kim; Bruno Amara
Subject: FW: 20 20170301 Explainer (CAB) (2).pptx
Date: Thursday, April 06, 2017 7:13:33 PM
Attachments: 20 20170301 Explainer (CAB) (2).pptx

Hi John/Bruno,

Scott Nelms just forwarded the attached deck to MO, which seems to have the older numbers.

Regards,
Gavin He

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 06, 2017 7:08 PM
To: Marianne Nguyen (MCYS) <Marianne.Nguyen@ontario.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: 20 20170301 Explainer (CAB) (2).pptx

Hi Marianne,

These numbers haven't been updated since the announcement. Here is the last (as far as I can tell) Minister's explainer placemat. Hopefully this helps as a start.

Scott

Tab 6

Electricity Rate Mitigation

The Ministry of Energy is providing an overview of the causes and potential measures to mitigate electricity price increases, including targeted measures to provide relief for rural / remote, in-need and Indigenous consumers. The Ministry is also highlighting broader measures to bring down rates for consumers including measures for small and medium business as well as Global Adjustment smoothing.

Support for Vulnerable Populations

Rural / Remote Rate Protection	2016-17	2017-18	2018-19	2019-20
Fiscal Impact ($ Millions)	0	532	547	561

Expand the existing program and harmonize distribution rates for customers in the highest cost 1/8 distribution companies, providing relief to ~700,000 customers (slides 9 to 27)

Ontario Electricity Support Program	2016-17	2017-18	2018-19	2019-20
Fiscal Impact ($ Millions)	0	186	261	325

Expand the existing program to enhance benefits and increase uptake through streamlined applications and expanded eligibility to include additional households (slides 28 to 31)

Affordability Fund	2016-17	2017-18	2018-19	2019-20
Fiscal Impact ($ Millions)	200	0	0	0

Set up a fund through Hydro One (subject to accounting) to help consumers in need but not considered 'low-income' to make energy efficiency improvements (slides 32 to 35)

On-Reserve First Nations Delivery Credit	2016-17	2017-18	2018-19	2019-20
Fiscal Impact ($ Millions)	0	20	20	20

Consistent with the Ontario Energy Board recommendation, and spirit of the Political Accord, remove delivery charges for 21,500 on-reserve First Nations (slides 36 to 39)

Notes: Fiscal impacts arise from funding new / existing programs from the tax base. Migrating existing programs to the tax base would also reduce costs for other ratepayers, but represents more than half of the fiscal impact associated with these programs.

Global Adjustment Smoothing for Regulated Price Plan Consumers

projected (and higher than previously estimated bills starting in ~2020)

Support for Small/Medium Business

The Ministry is also developing options for small / medium business (i.e., Class B):

- Class B consumers are too large to access the 8% rebate offered through the Regulated Price Plan and too small to access the Industrial Conservation Initiative.
- While the Debt Retirement Charge was removed from residential bills, it is not scheduled to be removed for other consumers, including Class B consumers, until April 2018.

Industrial Conservation Initiative Eligibility	2016-17	2017-18	2018-19	2019-20
Fiscal Impact ($ Millions)	0	0	0	0

Lower eligibility threshold below one megawatt for manufacturing, mining, data processing, refrigerated warehouses and greenhouses (slides 73 to 74).

Notes: The Industrial Conservation Initiative would continue to be funded from the rate base, resulting in no fiscal impact.

C. Eliminate - Fiscal Impact ($ Millions)	0	295	0	0
D. Voucher – Fiscal Impact ($ Millions)	0	0 - 295	0	0

Provide relief for small / medium business by shifting their Debt Retirement Charge to remaining large industrials; reducing their charge by 50% (i.e., $3.50 / MWh); or eliminating it completely. Alternatively, these consumers could be provided a voucher equal to their charge as a top-up incentive for investments in climate change programs (slides 75 to 76).

Notes: Fiscal impact for the voucher is dependent on whether it is / can be funded from the Greenhouse Gas Reduction Account rather than the tax base.

Tab 6

Electricity Rate Mitigation

The Ministry of Energy is providing an overview of the causes and potential measures to mitigate electricity price increases, including targeted measures to provide relief for rural / remote, in-need and Indigenous consumers. The Ministry is also highlighting broader measures to bring down rates for consumers including measures for small and medium business as well as Global Adjustment smoothing.

Context

Summary of Existing Program Costs & Anticipated Fiscal Impacts

Debt Retirement Charge Mitigation	0	148 - 295	(295) - 0	0
Subtotal (Impact of Bus. Proposals)	*0*	*148 - 295*	*(295) - 0*	*0*
Global Adjustment Smoothing	0	2,534	2,668	2,942
Anticipated Fiscal Impact	*200*	*3,272 - 3,567*	*3,201 - 3,496*	*3,848*
All-In Proposed Program Cost	*1,425*	*5,307 - 5,602*	*5,016 - 5,311*	*5,674*

Notes: Fiscal Impacts for existing programs are estimated and are for illustrative purposes only. Cost of Ontario Energy & Property Tax Credit reflects solely the energy component.

Considerations

The Ministry is proposing additional measures for electricity relief, with some recently announced measures having just taken effect in January 2017:

- Phased implementation may allow for better assessment of the impact of recent initiatives / remaining gaps and mitigate the near-term impact on the fiscal plan.

Taken together, the suite of proposals would triple the amount of electricity / energy cost support the government provides through the tax base by 2019-20:

- There may be opportunities to better target relief (e.g., the Rural / Remote Electricity Rate Protection program is not income-tested / benefits non-vulnerable consumers).
- There may be opportunities to offset spending on new or enhanced programs with existing but lower visibility and/or less responsive programs (e.g., tax credits).
- The proposals under consideration should be assessed on the basis of efficacy (i.e., which options achieve the largest reductions per dollar spent).

Ongoing Transformation

The Ontario Energy Board (OEB) continues to move the electricity distribution sector toward a more performance-based regulatory framework.

- The Ministry could direct the Board to look at opportunities for further efficiencies, or review its own regulatory requirements to eliminate unnecessary cost pressures.

The Independent Electricity System Operator (IESO) is moving forward with market renewal initiatives that could save up to $300 million per year starting in 2021.

- Savings would be reflected in the Hourly Ontario Electricity Price and wholesale market service charges, representing about $1 per month on a typical residential bill.

From: Bruno Amara
To: Ronald Kwan
Cc: John Kim
Subject: FW: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 12:23:17 PM

Hi Ron,

See below the information request from OEP regarding estimating economic impacts of the Fair Hydro Plan. I'm thinking this request should be directed to Energy? But let me know if you think EFB has a role. I think OEP would likely be looking for detail on

- $ impacts on consumer bills (which consumers)
- $ impacts on businesses (which businesses)
- $ fiscal impact to province

And I assume year-by-year outlook for the above.

Bruno

From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: 25% Electricity Price Reduction....

Hi Bruno

I hope all is well at your new position.

I left you a voicemail a few minutes ago. We've been asked by Brian to run a simulation to look at the broader economic impacts of the policy to reduce electricity prices by 25%. To help us model the policy more precisely, it would be helpful if we could get a more detailed description of the policy / program so that we have a better understanding of exactly what the policy is, and which user groups will be impacted etc. Any information about this would be helpful, including cost estimates for the program.

Could you pass this email to the person in your office who might be able to provide the above information?

Thank you!

Michael
416-212-0709

From:	John Kim
To:	Bruno Amara
Subject:	FW: Affordability Fund - Final BN
Date:	Monday, March 06, 2017 5:34:47 PM
Attachments:	3 BN ENERGY Affordability Fund v4 FINAL._SPFB.doc

Fyi, if we could merge pls.

From: Karim Javeri
Sent: Monday, March 06, 2017 5:15 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>
Subject: RE: Affordability Fund - Final BN

Hi John,

We have a small comment on the note. Thought you could include with any comments you may have.

Regards,

Karim

From: Emily Kerr
Sent: Monday, March 06, 2017 1:15 PM
To: Karim Javeri <Karim.Javeri@ofina.on.ca>
Subject: FW: Affordability Fund - Final BN

From: Ronald Kwan
Sent: Monday, March 06, 2017 1:13 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Affordability Fund - Final BN

Hi,

Please review.

Thanks,
Ron

From: McLean, David (MOF) [mailto:David.McLean@ontario.ca]
Sent: March-06-17 13:00

To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Tim Schuurman (MOF) <Tim.Schuurman@ontario.ca>
Cc: Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>; Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>; Gwendolynne Young (ENE) <Gwendolynne.Young@ontario.ca>
Subject: FW: Affordability Fund - Final BN

FYI

From: MacIntyre, Kyle (TBS)
Sent: March 6, 2017 12:04 PM
To: McLean, David (MOF)
Subject: Fwd: Affordability Fund - Final BN

Begin forwarded message:

> **From:** "Nelson, Dane (TBS)" <Dane.Nelson@ontario.ca>
> **Date:** March 6, 2017 at 12:00:21 PM EST
> **To:** "Poopalapillai, Christine (TBS)" <Christine.Poopalapillai@ontario.ca>, "Jancik, Mike (TBS)" <Mike.Jancik@ontario.ca>
> **Cc:** "MacIntyre, Kyle (TBS)" <Kyle.MacIntyre@ontario.ca>, "Simone, Nicole (TBS)" <Nicole.Simone@ontario.ca>
> **Subject: FW: Affordability Fund - Final BN**
>
> Please find the updated Affordability Fund Note attached.
>
> Regards,
>
> **Dane Nelson, Senior Policy Advisor**
> Treasury Board Secretariat | Deputy Minister's Office
> Phone: 416-325-3617 | Mobile: 416-409-3437 | E-mail: Dane.Nelson@ontario.ca

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 6, 2017
Agenda Class:	Discussion
Last reviewed by: TB/MBC (March 1, 2017)	**Tracking to:** Fast Track Cabinet (March 8, 2017)

SUBMISSION TITLE:	Affordability Fund

I. DECISION BEFORE THE BOARD

- Approve funding in 2016-17 to support the Affordability Fund.

II. RECOMMENDATIONS:

• Approve $100,000,000 in 2016-17 offset from the Treasury Board Contingency Fund to support the Affordability Fund.	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested	200.0	0.0	0.0
Initiative cost recommended	100.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact (C-fund)	100.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

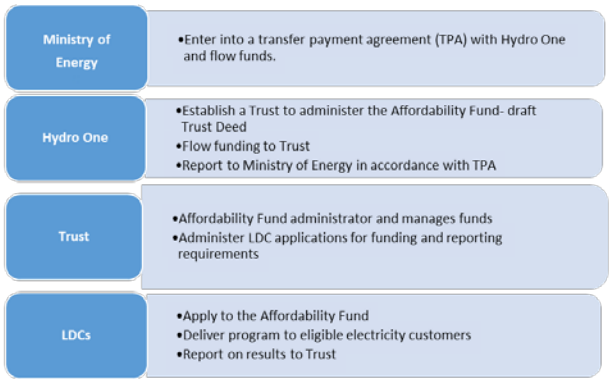
This item was part of the suite of initiatives before TB/MBC on March 1, 2017 related to electricity price mitigation. The Affordability Fund was minuted as follows:

> Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.
>
> a) Approved a commitment to provide up to $200,000,000 on a multi-year basis.
>
> b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

The Ministry's current request is for $200,000,000 in 2016-17 offset from the Treasury Board Contingency Fund. The Affordability Fund would be available to LDCs only and would target those electricity customers who do not qualify for low-income conservation programs (e.g. The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework) and who have difficulty paying their electricity bills.

- Ministry indicates that, based on LDC-reported data, 60,000 Ontarians at risk of disconnection from their electricity service each year. (TBS staff note a profile description or details of these consumers is not provided by the Ministry, and the Ministry has clarified this profile data has not been reported by LDCs to the OEB).
- Eligible customers will be identified by LDCs and could include those in frequent arrears or facing disconnection. Priority would be given to homes primarily heated by electricity. Appendix C outlines the Ministry's eligibility principles for the Fund.

To establish the Fund, the Ministry of Energy intends to enter into a Transfer Payment Agreement (TPA) with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province, including Hydro One, at the direction of the Trustees.



- The Trust's governing principles will be outlined in the Trust Deed and the Trust will be managed by a Board of Trustees.
    - The Trust Deed will be drafted by Hydro One with input from the province and others in the LDC sector. The goals and principles of the Fund will be outlined in the Trust Deed and be consistent with the TPA, but the Trustees will have the discretion as to how to achieve the goals in alignment with the principles.
- The Trust would include Trustees possibly from the government, from other LDCs across the province and other independent Trustees, but not be controlled by the Province.
- The Trustees will have the discretion to hire Hydro One or other entities as service providers to assist with administering the Fund.
- The Trust would distribute funds to LDCs across the province (including Hydro One) at the discretion of the Trustees.
- LDCs would identify their respective eligible electricity customers and deliver the funding in accordance with the program.
  To protect public interest, it is expected that the Trust Deed will reflect an expectation that accountability provisions be included in funding provided to the LDCs which are consistent with those required under the TPAD.

Since the submission was received centrally, the Ministry has been working with the Office of the Provincial Controller Division (OPCD) on appropriate funding arrangements (Providing the funding to the Trust directly versus providing funding to Hydro One, who would provide it to the Trust) to ensure that the Province's and the Auditor General's respective abilities to audit the use of the funds is maintained under the Province's Transfer Payment and Accountability Directive and the Auditor General Act. The Ministry is currently working with H1 and its external advisors on this topic, and further details will be available shortly. At this time, it is not anticipated that such changes would impair ability to complete the transfer by March 31st.

The Ministry indicates the measures funded through the Fund would be similar, or build on those available through the Home Assistance Program, and would specifically target customers who are otherwise not eligible for existing programs but could benefit from conservation programs.

- The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

Affordability Fund recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the Ministry indicates the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake. The large range takes into account the potential take-up of more expensive measures such as cold climate air source heat pumps which can range in cost from $7-$13K, and which can achieve significant electricity savings.

Performance Measurement:

The submission indicates that Hydro One would provide support to the Province in exercising its oversight of the program by collecting reports from the LDCs on behalf of the Province and/or submitting regular progress reports on program participation. The TPA with Hydro One will include details on reporting requirements. There is currently no mention of outcome measures in the submission but such details are expected to follow as planning progresses. The Ministry notes the government can outline broader principles and intended outcomes but specific outcome targets (like helped X homes result in Y savings) would be seen as prescriptive and in conflict with the Trust model.

The Ministry will create a grant agreement (i.e., A Transfer Payment Agreement) consistent with OPCD's guidance on one-time transfers and TPAD.

Risks:
Appendix C is the risk table submitted by the Ministry. Many of the Ministry's cited risk focus on the quick timing to put the program in place in 2016-17, oversubscription of funds, and underspending.

The Ministry also notes moderate risk with a high impact from flowing the funds into an independent trust account also for limited accountability, oversight, and transparency provisions. TBS staff note the list of accountability provisions provided by the Ministry above does not explicitly mention (nor does the submission elsewhere) the Transfer Payment Accountability Directive (TPAD) principle – Value for money is expected in the expenditure of government funds. TBS staff noted OPCD's one-time guidance is implicitly aligned with TPAD including value for money expectation.

TBS staff notes moderate risk around geographical representation of members in the Trust, lack of program design details (e.g., LDC and customer eligibility criteria) and lack of articulation of what success looks like for the program to ensure accountability. With the non-application based program structure, eligibility and selection criteria needs to be clearly established to pass the equity test.

Financials:
The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17 offset from the Treasury Board Contingency Fund.

- The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

- Administration expenses will be in accordance with the Transfer Payment Directive.

Commented [KJ1]: Slide 57-58 of Cabinet Deck. This is the stated logic for the creation of the Affordability Fund.

- The Ministry expects that the funds through the Affordability Fund will be deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base. The Ministry intends to seek an exemption from the Cash Management Directive from the Ontario Financing Authority, MOF.

TBS staff note the March 1, 2017 minute was a commitment of up to $200M on a multi-year basis with direction to the Ministry Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

Given the high-level nature of the current submission without specific details from a pending TPA, nor a performance management framework in place to gather evidence to support evidence-based decision-making, it is recommended that only $100M in funding in 2016-17 be provided now (Of the multi-year $200M commitment) as it still demonstrates an upfront commitment. It also provides time to finalize program details and performance reporting framework and report back to TB/MBC on them by Q1 2017-18. For the 2018-19 PRRT, the Ministry can report back on Affordability Fund results achieved to date, and provide a value for money assessment, so that both can also act as evidence-based support for a future funding request.

Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	March 3, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEMD, TBS		

APPENDIX A: PROPOSED MINUTE

Approve providing $100,000,000 in 2016-17 for the government funded Affordability Fund.

In this regard,

i) Approve a Treasury Board Order, under the authority of the Financial Administration Act, in the amount of $100,000,000 in Green Energy Initiatives Transfer Payment, under Energy Development and Management (Vote/item 2902-1), offset by the Treasury Board Contingency Fund, to establish the Affordability Fund.

ii) Direct the Ministry to

a) Report back to TB/MBC by Q1 2017-18 with final program details, and a performance management framework including intended outcomes.

b) Report back to TB/MBC through the 2018-19 PRRT with spending to date, results achieved to date, a value for money assessment, and if needed at that time a multi-year funding request along with impacts to the Province's fiscal plan.

c) Provide regular updates to TB/MBC through regular reporting process including quarterly reports.

d) Work with Cabinet Office and the Office of the Premier to develop a communications strategy.

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
		Fiscal Plan Basis			*Appropriations Basis*
$ Millions		**20116-17**	**2017-18**	**2018-19**	**2016-17**
Initiative cost recommended		100.000	0.0000	0.0000	
Expense changes:					
Operating item – Green Initiatives TP	Oper	100.0000	0.0000	0.0000	100.0000
Total Fiscal Impact (draw from c-funds)		**100.000**	**0.0000**	**0.0000**	**100.0000**

APPENDIX C: AFFORDABILITY FUND PRINCIPLES

The Ministry has developed high-level principles by which the Affordability Fund will operate and will continue to refine these principles through discussion with all LDCs. LDCs are best positioned to provide further guidance on principles as they are closest to the customer and will be responsible for identifying the customers in need and delivering assistance to them. All LDCs will be able to apply to access to the Affordability Fund so they may address the needs of their customer base. Principles include:

- The purpose of the Affordability Fund is to assist electricity customers who do not qualify for low-income conservation programs, are struggling to pay their electricity bills, and are unable to make energy efficiency improvements to their homes without financial assistance. The Fund would offer these customers energy efficiency measures at no or minimal cost, providing LDCs with an additional tool to help customers in need to reduce their future electricity bills and avoid future disconnections.
- Trust and Trustees - The Fund is to be administered by an independent Trust. Trustees are to be representative and have relevant sector expertise.
- Allocation of funding to LDCs - Fund to be accessible to all LDCs on application basis, subject to consistent funding application and evaluation criteria.

Eligibility Principles:

- Customers who do not qualify for low-income conservation programs (i.e. are above Statistics Canada's Low-Income Measure).
- LDC has reasonable evidence to indicate that the customer requires financial assistance to pay for energy efficiency measures.
    - The Trust will be expected to consider the appropriate indicators for determining whether customers are reasonably in need. The Ministry does not expect that a new income threshold would be established, due to the administrative costs and timelines required to implement income-eligibility tests. The Ministry believes that other indicators available to LDCs would be sufficient.
- Customers may have triggered action by an LDC collection department (e.g., customers are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.).
    - Arrears are defined by the OEB as accounts that are 30 or more days past the 16-day minimum payment period.
    - LDCs have communicated that their customer care departments keep track of their customers who are in "frequent arrears" or "chronic arrears."
    - These terms are qualitative (i.e. do not refer to a set length of time or number of times customers are in arrears); however, generally ENERGY understands the bounds of these terms to be, on one end, customers who are in arrears for more than one billing period, and on the upper end, customers that have several thousand dollars in payments owing, accumulated from a number of missed or partially missed billing periods.
    - While arrears are an important indicator of need to LDCs, LDCs have also indicated that there may be customers who are keeping up with their bills, but at the expense of paying for food or other basic needs. LDCs have asked for discretion to also offer energy efficiency measures to these customers.
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances.
- Other factors as agreed by the Trustees.

Hydro One is expected to use the principles developed by the Ministry (with input from LDCs) to establish the Trust Deed. It is critical that there be fair and appropriate eligibility criteria for LDCs to consistently apply across the province to ensure that support is provided to those customers in need and to prevent any potential gaming.

The Trustees must be given some flexibility to determine this criteria. Flexibility is also desirable as it is expected that the Trustees will have knowledge of the LDC sector, customer needs and/or low-income and conservation programs to further refine appropriate customer eligibility criteria. It is also expected that Trustees will engage with other LDCs and industry experts as needed to inform eligibility criteria.

APPENDIX D: MINISTRY'S RISK ASSESSMENT AND MITIGATION STRATEGY

Risk	Likelihood (L/M/H)	Impact (L/M/H)	Mitigation Strategy
It is proposed that the funding for the Fund be expensed in 2016-17, while the programs would be delivered in future fiscal years. The Auditor General may ask for the funding to be expensed in future fiscal years.	M	L	ENERGY is continuing to engage with Hydro One and the Ontario Provincial Controller (OPCD) early to develop the funding mechanism and Trust. ENERGY is working to flow the funds to the Trust in advance of March 31, 2017.
The Auditor General may question the rush nature of this program in addition to the need for a Trust Account and why the Ministry is unable to deliver the program itself.	H	M	Explain that the Fund is part of the government's rate mitigation strategy, and intended to address an immediate need (getting customers on a more sustainable path with bills). ENERGY lacks the capacity to deliver the program itself. ENERGY will develop issues management materials to address these concerns.
Flowing the funds into an independent trust account allows for limited accountability, oversight and transparency provisions.	M	H	ENERGY has engaged with the Ontario Provincial Controller to seek their guidance on how to incorporate accountability, oversight and transparency provisions in the TPA. ENERGY will develop a TPA in-line with OPCD guidelines on accounting considerations for using government funded Trust Accounts.
Oversubscription of funds	M	M	Need for additional funding in future years can be evaluated based on customer needs.
Underspending of allocated funds	L	M	TPA will include the option to extend the original funding amount into future years. The Trust will also have the ability to extend funding as needed. To increase uptake for customers in need, LDCs will undertake targeted outreach.
Some entities, including LDCs who are not selected as parties to the TPA, may feel left out of the funding program or perceive the funding as inadequate.	M	L	Undertake consultations with LDCs and other stakeholders to provide input on allocation methodology. Prepare a robust communication plan to emphasize the scope and purpose of the Fund

From:	John Kim
To:	Francisco Chinchon
Subject:	FW: BN - GA Equity Injection Structure v7._Markup.docx
Date:	Monday, April 03, 2017 5:44:31 PM
Attachments:	BN - GA Equity Injection Structure v7._Markup3.docx

Comments welcome.

Thank you Francisco. Very complex.

From: John Kim
Sent: Monday, April 03, 2017 5:13 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

I reworked it a bit.

John

From: John Kim
Sent: Monday, April 03, 2017 4:32 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

What do you mean by the lock-up period?

From: Adam Prokop
Sent: Monday, April 03, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

Thanks John,

Responded to comments and reedited.

Kind regards,

Adam Prokop
Economic Specialist

Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
Sent: Monday, April 03, 2017 4:12 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: BN - GA Equity Injection Structure v7._Markup.docx

I know Bruno and Shajee are tied up on the narrative so took a quick look. Are my edits fair description of the interactions with OPG? Also, could you take a look at the comment?

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK5]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK6]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently ~~environed~~ envisioned to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).
  - [TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below.

Commented [FC7]: Not quarterly?

Commented [JK8]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP10]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.

- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ211]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

-

~~ADDITIONAL CONCERNS~~CONSIDERATIONS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

- OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the ~~proposed lock-up period ends~~'inflection' point where the ratepayers start to pay down the deferred GA.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of the~~is~~ proposed structure is ~~hypothetically~~currently viewed as fiscally neutral on an accounting basis, there is some concern over the cash flow-through of this structure with no flow through of interest or dividends over time.
- The Province would~~ill have~~incur~~r~~incur interest associated with the debt it borrows to finance the 44% equity injection. OPG should have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments.

~~The interest cost will continue to build during the lock-up period as more principal is borrowed, resulting in potentially billions of aggregate interest owed by the Province to the capital markets.~~

- It may be necessary to establish a flow-through of cash from OPG to the province through some type of return, such as a dividend ~~or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Province~~

- In order to reasonably guarantee ~~this~~a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield ~~related~~associated with ~~to~~ the interest cost of the Province's ~~related debt~~borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g. through a form of dividend reinvestment plan.

- A preferred equity structure~~This~~ could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

Commented [AP12]: This is not necessarily true as an acceptable premium associated with the buyback feature would mitigate this concern. Maybe keep the subsidy issue separate as mentioned above? The main risk is that the Province will be paying several hundred millions to billions of interest over time with no cash flow from OPG. OPG in turn would have the same amount of cash on its books – either idle or used for their own initiatives.

Commented [JK13]: Explain. Is this risk to OPG Trust, OPG or the Province.

Commented [AP14R13]: Risk is to OPG Trust/OPG because, if preferred equity is issued, then it could be viewed as debt.

From: John Kim
To: Shajee Kathirgamanathan
Cc: Bruno Amara
Subject: FW: Class B
Date: Tuesday, March 14, 2017 10:10:34 AM
Attachments: CBN - Electricity Price Mitigation.pdf

Fyi, I don't have the pw but looks like Emily dealt with it.

From: Emily Kerr
Sent: Tuesday, March 14, 2017 10:10 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Class B

Pages 3 and 4 of the pink note from the March 1 Cabinet submission (attached) have the following definitions. (I added material in bold for the class A definition to note the proposed lowering of the threshold to 500 kW.)

Regulated Price Plan (RPP) – Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.

Class A Consumer – Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types. **[The March 1, 2017, Cabinet submission from Energy proposed to expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts. The expansion would be targeted to manufacturers.]**

Non-RPP Class B Consumer – Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

From: Ronald Kwan
Sent: Tuesday, March 14, 2017 10:01 AM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Class B

Hi,

Looping in Emily, in case SPFB has something handy.

Ron

From: Gavin He
Sent: March-14-17 09:59
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: Class B

Hi John,

Our MO is wondering if we have a chart or short bullets that define RPP, Class A, and Class B consumers. Do we have one handy?

Thanks,
Gavin He

From: Nguyen, Marianne (MOF) [mailto:Marianne.Nguyen@ontario.ca]
Sent: Tuesday, March 14, 2017 9:56 AM
To: Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Class B

Hi Chris – Do you have a handy chart or short bullets that define RPP vs Class A vs Class B consumers?

Ontario

CABINET BRIEFING NOTE

Energy

Electricity Price Mitigation

Cabinet (info) Feb 15, 2017	TB/MBC Mar 1, 2017	Cabinet Mar 1, 2017	Announcement Mar 2017	LRC / Cabinet Spring 2017	Introduction Spring 2017	Effective Date July 1, 2017

This government's commitment	"We're going to come out with what we can do [on hydro bills] before the budget," – Premier Wynne, Jan 18, 2017 "And that's why … I've committed to finding more ways to lower rates, to reduce the burden on consumers, and we're going to be working on that in the weeks and the months ahead. And, in fact, that work is well underway. I'm listening to the people of the province. I'm listening to the people who run our system. And I am going to make changes because it's the right thing to do." – Premier Wynne, speech at Economic Club of Canada, Jan 19, 2017

SUMMARY OF PROPOSAL

Note: this note is based on a draft submission

The Ministry of Energy is seeking approval to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers. While the actual benefits would be variable based on consumer class and consumption, the proposal is projected to provide about 25% in rate relief (including the 8% announced in 2016) for a typical residential consumer (i.e., based on a Toronto Hydro customer consuming 750kWh per month in 2017).

The proposal aims to smooth the impacts of the Global Adjustment (GA), help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding and work to bend the future cost curve of electricity. Initiatives for approval include:

1. Subject to legal, accounting and financial risk assessments, financing a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the impacts of the GA across ratepayers over a longer period of time, specifically by:

- subsidizing rates in the short term, i.e. by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month
- bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021
- from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding around 10% of total electricity costs.

2. Subject to legal, accounting and financial risk assessment, expanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), and using other mechanisms, including putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs.

3. Lowering the Industrial Conservation Initiative (ICI) threshold to provide additional rate mitigation targeted at specific Class B electricity consumers groups (e.g. manufacturing), in particular manufacturing companies, with additional flexibility to encourage take-up, and explore additional rate mitigation residential tenants that are not sub-metered and report back to Cabinet and TB/MBC with options in winter 2017.
4. Enhancing electricity support and conservation programs and shifting the costs of those programs from rate payer funded to government funded:
   - Broadening the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution cost for customers with the highest distribution rates;
   - Expanding the Ontario Electricity Support Program (OESP);
   - Establishing a new one-time Affordability Fund in 2016/17; and
   - Eliminating the delivery charge for First Nations customers on reserve.
5. Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for OEB red-tape reduction and future LDC efficiencies and rates.
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.
   - Explore additional cost savings to future electricity rates as part of the 2017 Long-Term Energy Plan to help offset the impact of GA recoveries.

The proposal will require a number of legislative, regulatory and policy changes, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The GA refinancing proposal includes policy approval to amend the legislated authority of OPG and IESO to enable appropriate cost recovery and settlement mechanisms, and of the OEB to ensure appropriate regulatory oversight.

In order to avoid the cost of GA refinancing impacting the province's fiscal plan, the proposed mechanism to partially defer the GA costs must meet legal, accounting, and financing requirements. This analysis will not be completed until the proposed legislation is finalized. If these requirements cannot be met, the cost of the GA refinancing would come onto the province's fiscal plan, creating a fiscal exposure of about $2.5 billion in 2017/18 and increasing in subsequent years (see table on p. 4). If GA refinancing is included in an announcement prior to confirmation of these requirements, the government would not be able to comment on the impact on the fiscal plan. Rather, the government could explain its intention to draft legislation to ensure legal, accounting and financial requirements are met so not to have a fiscal impact.

Terms you need to know

- **Global Adjustment (GA) –** Amount that accounts for differences between the market price of electricity and rates paid to regulated and contracted generators and for conservation programs. The GA is collected from all electricity ratepayers in Ontario.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there

are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers'.

- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

What is the expected cost to government[1]?

The total cost of the proposal is $2.7B in 2017/18, $665M funded through the fiscal plan and $2.5B to be funded through the electricity rate base subject to confirmation legal, accounting and financial requirements.

Cost Impact ($M)	2016-17	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	200	665	753	829	892
GA Financing[2]		2,534	2,668	2,942	3,420
Cumulative total - Bills Lowered by 25%, RPP-Eligible Only*		3,199	3,421	3,771	4,312

For the social programs, the current estimate for the proposal is $200M in 2016/17 for the Affordability Fund (a one-time cost). The current estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $738M in

[1] Assumes the required legal, accounting and financial requirements can be met to avoid a fiscal cost to the government.
[2] Assumes the necessary legal, accounting and financial requirements are not met.

2017/18, growing to $828M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as future energy consumption of various consumer groups.

Fiscacl Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.

The impact of moving program funding from rate payer funded to government funded would result in approximately $2 savings/month for a typical residential consumer.

If the proposed legal and accounting treatment of the GA refinancing proposal is not implemented, there would be an immediate, negative impact on the province's fiscal plan. In this case, the ministry is directed to report back with options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan. The table below shows the projected fiscal impact based on bills being lowered, in combination with the existing 8% Ontario Rebate for Electricity Consumers and shifting existing OESP and RRRP costs to the government, by an estimated 25% for a typical, average household consuming 750 kWh per month.

The exact impact of refinancing the GA is unknown at this time. The intent is to establish a structure in which the GA cost recovery deferral is recorded as a regulatory asset by the IESO (which is sold to the OPG Trust), supported at its foundation by the fact that the legislation to defer the GA cost recovery is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG Trust would ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province and external financing. Such a structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. Until the structure has been fully developed, which includes development of the legislation and assessing its fiscal impact which is dependent on the accounting analyses, it cannot be confirmed that the amounts deferred would not increase the government's annual deficit (or reduce its surplus) and/or

net debt. It should be noted that one of the requirements of the structure is that the government would backstop the financing if a future government were to ever revoke or change the legislation. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time and could increase the risk to the fiscal plan. However, it is likely that external borrowing by the OPG Trust would be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future. Based on the current stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's ability to address electricity rate concerns in the future.

How will the changes be communicated?

On March 2, 2017, the Premier is scheduled make a high profile announcement of additional relief to reduce electricity costs for Ontarians. To coincide with this event, there will be a news release with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Given the continued high risk that the GA financing may have a fiscal impact, the communication will need to be clear that the government's intent is to draft legislation to ensure legal, accounting and financial requirements are met so not to have a fiscal impact.

CABINET OFFICE ANALYSIS

The proposal aims to provide further rate relief to Ontario electricity ratepayers. The proposal builds on earlier electricity rate mitigation initiatives, including the ending of the Debt Retirement Charge (DRC) for residential consumers, the 8% rebate on all RPP-eligible electricity bills, the enhancement of RRRP and the expansion of ICI for industrial consumers (all announced in September 2016). The proposal is projected to provide about 25% in rate relief in aggregate (including the 8% announced in 2016) for a typical residential consumer (i.e., based on a Toronto Hydro customer consuming 750kWh per month in 2017).

Since 2010, electricity prices have risen considerably in Ontario, particularly for families and small businesses. Ontario's electricity prices are among the highest of any Canadian jurisdictions, but are comparable to many neighbouring US jurisdictions. Primary contributors to the price increase in Ontario are new investments in generation, transmission and distribution. Addressing the price of electricity is among the highest priorities for Ontarians. Prices are forecast to continue to increase as additional renewable energy generation is brought online and nuclear units are refurbished. Ontario currently provides rate mitigation to various electricity consumers through a combination of tax-based and rate-based programs. Rate-based programs are funded by shifting costs from one electricity consumer group to another. However, smaller manufacturing firms in Class B do not benefit from the current ICI program or financial relief to Households.

Electricity bills contain several line items. The electricity consumption line for consumers on the Regulated Price Plan breaks down usage into the different periods by price (off peak, peak, mid peak). The delivery line covers the cost of getting electricity from generating stations to homes and businesses. There are three components to the delivery line: transmission (i.e., moving electricity from generating stations to the distribution system), distribution (i.e., moving electricity from the transmission system to homes and businesses) and line loss (i.e., costs to recover electricity that is lost as heat when it is delivered over a power line). The distribution charge is currently the largest component (60% to 80%) and is recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over the next 5 years (8 years for Hydro One). The efficiency and performance of individual LDCs also impact the delivery costs for consumers.

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the spring of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement and conservation and demand management. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and this submission combined with new policy or program announcements in the LTEP will provide the comprehensive future planning perspective for Ontario's energy sector.

Under the proposal, all electricity consumers would benefit from one or more of the proposed electricity price mitigation initiatives by July 1, 2017. Additional supports for Class B consumers would be provided under an expanded ICI program and consideration will be given to providing support to residential tenants that currently don't benefit directly from rate mitigation measures.

1. Refinancing Global Adjustment in order to defer ratepayer costs

The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation programs. The GA is

instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available. The GA has risen over the past decade as the province has invested in greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, and wholesale market prices have been low due to low demand and natural gas prices.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

The proposal defers some of the current costs to ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The proposal is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets in the future.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge and it being deemed a tax.

The result of the 25% reduction proposal is that costs for typical residential consumers would be lowered by $26/month with total bill increases kept in line with inflation for approximately 4 years, by borrowing money. Costs would increase to above the true cost of GA until the borrowed money, interest accumulated on the debt and the cost of administering the program is repaid fully in 2048 (see chart on page 19).

The projected residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month. Actual ratepayer savings would vary due to differences in consumption patterns and LDCs.

Accounting, financial and legal analyses are ongoing and will inform an assessment of the feasibility of this proposal. If these analyses do not support the use of the non-fiscal model described in this submission, and the government proceeds to make the announcement later this week, the government is at risk that the proposed mechanism would impact the provincial deficit by up to $2.5 billion a year. Should this be the case, the ministry will report back to Cabinet with options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan.

Those ineligible to receive the GA rate relief can benefit from one or more of the other initiatives under this proposal (e.g., OESP, RRRP proposals).

2. Mechanism to Defer GA costs

The intent is to establish a structure in which the GA deferral is recorded as a regulatory asset by the IESO, supported at its foundation by the fact that the legislation to defer the GA is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG would ultimately take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province and external private sector financing. Such a structure would result in increased gross debt of the

Province (to finance the equity injection in OPG), increased interest on debt related to that external debt, increased net investment in OPG, and increased earnings of OPG. If structured properly, the underlying regulatory asset would offset the additional debt to not impact the province's net debt.

Until the structure has been fully developed, which includes development of the legislation and assessing its impact on the accounting analyses, it cannot be confirmed that the amounts deferred for ratepayers would not increase the government's annual deficit. It should be noted that one of the requirements of the structure is that the legislation be written to avoid the possibility of being revoked with wording to ensure OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time. Based on the current stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province.

OPG is currently exploring creating a Special Purpose Vehicle (SPV) or Trust ("OPG Trust") to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the trust. The variability will likely largely result from the financing of the Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

Assuming that all legal, accounting and financial requirements can be met, the proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

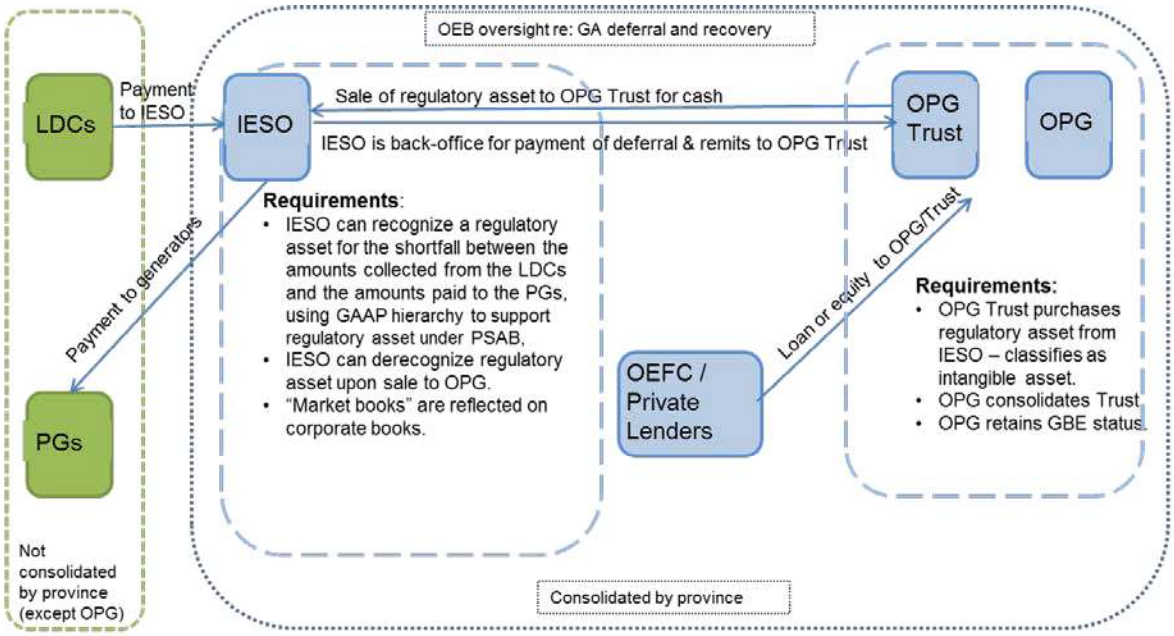
The analysis of the structure with respect to accounting, legal and financial risk is not complete; several key requirements remain outstanding:

- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
    - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
    - IESO can derecognize regulatory asset upon sale to OPG; and
    - "Market books" are reflected on corporate books.
    - In addition to these requirements, it will also be necessary to establish who will act as the regulator as in order to have a regulatory asset, a regulator is required. The ministry is working with the OEB about their potential regulatory role.

- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.

If a mechanism can be structured that satisfies these requirements, there remain some fundamental risks that the province would need to accept:

- Government would have no ability to control electricity prices resulting from these changes;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work; and
- Private lenders would likely require a guarantee, break fee or other backstop because government cannot commit to the legislation being irrevocable.



Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

The ministry continues to work with TBS, MOF, the IESO, the OPG and their external auditors for IESO and OPG on an appropriate structure and will report back to Cabinet with the proposed structure for approval in winter 2017.

3. Support for Class B electricity consumers and Residential Tenants

Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers, large commercial buildings and broader public sector facilities. There are several energy efficiency programs for Class B consumers; however, these consumers are too large for the RPP and so do not qualify for the 8% rebate or too small for other support programs such as the Industrial Conservation Initiative (ICI).

The Ministry of Energy is proposing to expand the eligibility threshold for ICI that will provide Class B consumers the opportunity for electricity costs savings. The expanded ICI would include:

- Extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts;
- Targeting eligibility to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing); and
- Providing small manufacturers with greater flexibility in meeting ICI requirements.

Under the expanded ICI, larger Class B consumers whose electricity demand is currently too low to qualify for ICI, would now be eligible for the expanded ICI if they wish to participate. In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign.

Currently, residential tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent. Tenants who pay for their own electricity will receive electricity costs savings directly through their bills. Low-income tenants who pay their own electricity bills can access existing energy support programs, such as the Ontario Electricity Support Program, administered by the Ontario Energy Board. The Ministry of Housing has identified that it may have limited tools to address rate mitigation for all tenants who are not suite metered. The ministry will explore options for providing energy rebates directly to tenants who are not sub-metered and whose rent includes electricity.

4. Enhancing electricity support and conservation programs and shifting cost from rate payer funded to government funded:

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning. The ministry proposes to provide support on the delivery portion to those most in-need by:

- Moving the RRRP from rate payer funded to a government funded program; and
- Harmonizing the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to for that LDC to receive RRRP.
- These enhancements are expected to benefit approximately 800,000 customers in Ontario.

For this portion of the proposal, targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $459M in 2017/18, $243M of which is a transfer of existing programs to the tax base.

Ontario Electricity Support Program (OESP) Expansion:

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The program was launched in January 2016 and has had roughly 30% enrolment. There are two benefit scales; the basic program credits by income and household size (credits range from $30/month to $50/month); the enhanced benefit credits for Indigenous, electric heat consumers and certain medical devices (credit ranges from $45/month to $75/month).

The ministry is proposing to:

- Move the OESP from rate payer funded to government funded; and
- Increase the existing benefit scales by 50% and provide additional credits to more households.

For this portion of the proposal, the basic OESP benefit scale would increase from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers and the cost to fiscal plan would be $186M in 2017/18.

New Affordability Fund

The existing Home Assistance Program provides eligible low-income customers with energy efficiency upgrades (such as new energy efficient appliances, energy-saving light bulbs (LEDs), power bars, and other energy efficiency measures) and education, at no cost, to help improve the energy efficiency and comfort of their homes. Program eligibility

is aligned with other low-income support programs such as the OESP and the program is delivered by LDCs.

The low income household definition is derived from Statistics Canada's income measures. The most commonly used measure is the after tax Low Income Measure (LIM), which takes into account household size. Some electricity customers who struggle to pay their electricity bills do not meet the definition of a low-income household and therefore are not eligible for the Home Assistance Program.

The ministry is proposing to:

- Establish an Affordability Fund in 2016/17 that would help struggling customers who do not qualify for low income conservation programs and cannot undertake energy efficiency measures without financial assistance. The Fund would be paid for by the government with a one-year fiscal impact of $200M in 2016/17 and be administered by an independent trust.
- Over time the Fund could help targeted customers, based on standardized eligibility criteria get back on track with their bills and also avoid disconnection costs by assisting them to lower their bills through energy conservation.

Measures available in the Home Assistance Program could include:

- Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating);
- Programmable thermostats, weather stripping, insulation (in homes with electric heating); and
- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps can range in cost from $7,000 to $13,000.

The government has created a new climate change agency as committed through the Climate Change Action Plan, which will serve as a one-window for the delivery of climate change-related programs (e.g., conservation programs), including those delivered by LDCs. ENERGY and MOECC will work together to avoid consumer confusion with respect to the support this Fund will provide alongside the newly established Climate Change agency.

<u>On-reserve First Nations Delivery Credit</u>

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments (e.g. transmission infrastructure built on reserve lands where the First Nation may not have been consulted, or in some cases transmission infrastructure may cut reserve lands in half, thereby limiting the use of the land base).

A Grievance Table process was established at the request of the Chiefs of Ontario as a part of the process of broadening the ownership of Hydro One. The cost of electricity and delivery charges were identified as the main priority at this table. At the request of the Minister of Energy, the OEB worked with the Chiefs of Ontario to develop options to address these issues. The ministry is proposing to implement the recommendations of the OEB's report.

The ministry is proposing to:

- Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.
- Automatically qualify on-reserve First Nations residential customers (~21,500 customers)
- Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers in 2017.

This proposal would be funded by the government ($20M annually) and provide on-reserve First Nation customers an average monthly benefit of $85.

5. Ongoing activities to bend the future cost curve of electricity:

<u>OEB – opportunities for OEB red-tape reduction and future LDC efficiencies</u>

The OEB has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates. The OEB has been working to move the distribution sector towards a performance/outcomes-based regulatory framework.

Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities. In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities over the first ten years after consolidation.

Opportunities:

- ENERGY could ask the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- The OEB could be instructed to review business cases behind its own regulatory requirements to reduce "red tape" and eliminate costs that LDCs indicate are creating pressures on operating expenses.

This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the Ontario Energy Board Act, 1998, and/or the 2017 Mandate Letter and other agency business planning processes.

IESO – Modernize Ontario's electricity market through electricity Market Renewal initiatives

Current IESO Market Renewal initiatives include:

- Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
- Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.

Changes related to IESO's Market Renewal initiatives, reflected in the wholesale electricity price and uplifts, are estimated to save at least $200 million per year, starting in 2021.

Expected Impacts of the Proposal on Electricity bills:

The projected impact of this proposal to an average residential customer bill in July 2017 is up to a 25% decrease, followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to*

existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) for a typical residential consumer to, but likely to question the longer term implications. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to "keep electricity rate affordable".

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Metis, non-status, First Nations without land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – Likely to support any targeted conservation efforts, may react negatively towards any price relief that is not directly tied to energy conservation.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

The initiatives in this proposal would be announced in March 2017, with price mitigation measures beginning to take effect July 1, 2017. The 2017 LTEP will be released to the public in May 2017 and would reinforce/integrate with this proposal.

1. Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs

The ministry will report back to Cabinet and TB/MBC in March 2017 on the recommended implementation approach and mechanism for refinancing Global Adjustment assets in order to defer ratepayer costs and for Class B supports.

This initiative is expected to take three to six months to implement following the introduction of enabling legislation.

2. Enhancing Social and Conservation Programs

RRRP Enhancement

New legislation and regulations would be required to establish this program. OEB estimates that the implementation would take at least six months after finalizing regulations. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to legislation/regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate).

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the proposed changes to this program (delivery mechanism, funding source, application system, eligibility).

New Affordability Fund

This is a new program that would require TB/MBC approval.

ENERGY proposes to work with Hydro One to set up an independent Trust to serve as the Fund Administrator. The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province in consultation with other LDCs and key stakeholders. The Fund Administrator will also be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program would be managed on a consistent basis across the province.

LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.

LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers. Individual LDCs would then be best positioned to identify and target their customers who are most in need.

On-Reserve First Nations Delivery Credit

Legislation and regulations would be required to implement this program. The OEB would need to work with the LDCs to identify the on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

The rebate would appear on customer's electricity bills as a reduction in their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

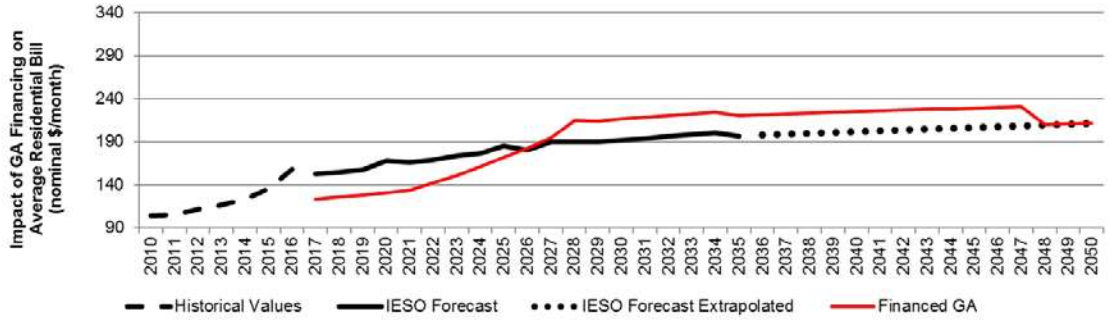
5. Ongoing Efforts to bend the cost curve of electricity

These initiatives could be directed through the Minister's letter, the LTEP Implementation Directive, s. 35 of the Ontario Energy Board Act, 1998, and/or the 2017 Mandate Letter and other agency business planning processes.

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on this portion of the proposal, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future.

Not all generating assets will continue operations at the end of their contract, in that case, future rate payers will be paying the cost for assets that are no longer in use. High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result.

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

To date, the Ontario Auditor General (OAG) opinion on the proposal has not been sought. While the auditors of OPG and IESO are providing their preliminary assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

However, a proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

Retired Supreme Court of Canada Judge Ian Binnie has provided further legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

Fiscal Pressure

This proposal does not align with the 2016 Budget fiscal plan and there are no proposed offsets identified. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.

- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government (i.e., OPC) and agencies of the government (OPG and IESO) have various external advisors providing preliminary assessments and recommendations on a model that would support the desired outcome.

There may be some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG has not been consulted on this proposal and will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Mechanism or Plan for OPG

- Accountability
    - Need to balance independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
    - Accountability to the government or the public, amount of government control of the entity, including future rate increases.
- New structure
    - Structure is complex, involving:
        - IESO as originator of the regulated asset and responsible for flow of funds;
        - OEB as regulator of the new mechanism;
        - OPG responsible for financing and managing the mechanism; and
        - The Province providing ongoing equity capital infusions to OPG.
    - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute

OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).

  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs.
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

<u>Legal Risk – constitutionality of financing the GA</u>

Former Supreme Court Justice Ian Binnie has provided a legal opinion which concludes that the current proposal is at a moderately high risk of being a tax. The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.

If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).

By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The risk identified by Mr. Binnie could be eliminated, either up front or retroactively, by the imposition of a valid tax.

<u>Program Design and Implementation</u>

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake, also it is unclear whether the existing HAP program could be expanded – or modified before creating a new LDC Affordability program)
- Implementation of new Affordability Fund - it is expected that Hydro One would be one of the participating LDCs involved in setting up the Trust to administer the Fund. As such, the ministry is working to ensure that funding flows before year-end 2016/17 to the Trust as any monies that are sitting in Hydro One at year-end would be consolidated with the province and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers. Details about the establishment of the Trust are still being determined by the ministry, in consultation with the OPCD and Hydro One.
- The OESP matrix would no longer follow the Low Income Measure (LIM) which would flag inconsistencies between how programs are applied or put pressure other provincial programs to increase funding amounts

Benefits for all Consumer Classes

The proposal includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Alternative Options Considered:

1) Status quo – in the absence of this proposal electricity rates are forecasted to increase by 10% from 2017 to 2020. To date, the province has implemented an 8% rebate on all residential bills, in addition to expanding RRRP and broadening of ICI. Could include additional public communications about existing electricity price mitigation initiatives (e.g., the DRC will be removed from industrial consumers in 2018).
2) Provide up to 25% rate relief across all consumer classes (residential, small business, commercial and industrial funded from the fiscal plan). The projected cost would be $4B/year above the existing cost of the 8% rebate.
3) Provide a total of 20% or 18% rate relief (versus 25%) through a combination of deferral of GA costs, social programs and the existing 8% rebate.
4) Capping the amount an LDC can bill consumers for distribution service at a specific cost, with distribution costs that exceed this cap covered by the support from the fiscal plan. This would have been temporary until the completion of the OEB-mandated move to completely fixed distribution costs (scheduled for 2019, 2020-2022 for Hydro One), or having LDCs take on some of the GA deferral cost with long term repayment terms.
5) Achieving lower GA costs through renegotiating the existing contracts with the power generators.

6) Investing in targeted social programs that could be application based in the short term, providing a more targeted benefit to those in greatest need.
7) Procuring additional hydroelectricity from Quebec, would require upgrades to transmission infrastructure and would be more costly than domestic alternatives.
8) Using IESO and/or creating a new special purpose entity, independent from the Province that would be dedicated to GA refinancing.
9) Capping electricity rates at 1.7% for 3-to-4years and capping the salaries of electricity sector executives.
10) Expanding access to natural gas for home heating by increasing funding to the natural gas expansion program by $100 million. This could also include additional support to address conversion costs (i.e., switching away from electric heating to natural gas).

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in April 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – The government also recently ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, as of January 1, 2016, and put in place the low-income targeted Ontario Electricity Support Program (OESP), effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity

support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs (e.g., energy management programs).

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

PROPOSED CABINET MINUTE

Cabinet agreed that:

ENERGY develop electricity rate mitigation actions that, in total, support a 25% electricity bill reduction (including the 8% reduction announced in 2016) in 2017 for a typical household by undertaking the following actions:

1. For consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor, ENERGY:

    A. Subject to completed legal, accounting and financing risk assessments, finance a portion of the Global Adjustment (GA) costs in order to partially defer RPP-eligible ratepayer GA costs by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by about 16% (i.e., $26 per month). Total projected bill increases will be kept in line with Consumer Price Index (CPI) until the end of 2021. From 2022 onwards, bills will increase at a rate that ensures gradual recovery of the accumulated debt and associated financing costs by 2048, with escalation in subsequent years set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill. To this end:

        i. Explore expanding the powers of Ontario Energy Board (OEB), Independent Electricity System Operator (IESO), and Ontario Power Generation (OPG), and using other mechanisms, including the putting in place of appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs.

2. ENERGY develop and implement, subject to appropriate Treasury Board/Management Board of Cabinet approvals, rate mitigation initiatives targeted at specific populations, including:

    A. Broadening the Rural or Remote Rate Protection (RRRP) program to mitigate distribution charges for customers of Local Distribution Companies (LDC) with some of the highest distribution rates, and moving the program from a ratepayer funded program to a government funded program beginning in 2017, including:

        i. Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout

Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the lowest distribution rate paid by an average consumer in this group by fall 2017.

B. Expanding every benefit level of the Ontario Electricity Support Program by 50%, moving the program from a ratepayer funded program to a government funded program beginning in 2017 and pursuing additional measures to substantially increase take-up;

C. Establishing a new one-time government funded Affordability Fund in 2016/17 to provide relief to electricity customers who do not qualify for existing low income programs and cannot purchase energy efficiency measures without financial assistance;

D. Establishing a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve; and

E. Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500 kW for consumers under North American Industry Classification System (NAICS) codes 31-33 (i.e., manufacturing) to enhance competitiveness for Class B electricity consumers beginning July 2017. Newly eligible consumers would be required to opt-in to the program if they wish to participate.

3. ENERGY report back to TB/MBC, prior to announcement, on:

   A. A feasible mechanism for refinancing the Global Adjustment, per minute 1A, including completed legal, accounting, and financing risk assessments.

   B. If a non-fiscal mechanism cannot be established for refinancing the Global Adjustment, options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan.

   C. Additional proposed rate mitigation initiatives targeted at specific populations, per minute 2, including a proposal to move the RRRP and OESP from ratepayer funded programs to government funded programs.

4. ENERGY, through the Long-Term Energy Plan, take steps to further reduce electricity rates across the system by:

   A. Ontario Energy Board (OEB) – Identify opportunities for OEB red-tape reduction and future LDC efficiencies and rates;

B. Directing Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

5. ENERGY to explore additional rate mitigation initiatives targeted at specific populations, including:

   A. Working with the ministries of Economic Development and Growth (MEDG), Finance (MOF), Environment and Climate Change (MOECC), Labor (MOL) and Small Business to identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' and report back to Treasury Board/Management Board of Cabinet and Cabinet in winter 2017.

   B. Working with the Ministry of Housing to explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs and report back to Treasury Board/Management Board of Cabinet and Cabinet in winter 2017.

6. ENERGY seek any further Treasury Board / Management Board of Cabinet approvals of these initiatives prior to implementation.

7. ENERGY report back to Treasury Board / Management Board of Cabinet by 2021 with a review of the Rural or Remote Rate Protection (RRRP) program changes, including the efficiency and effectiveness of the program.

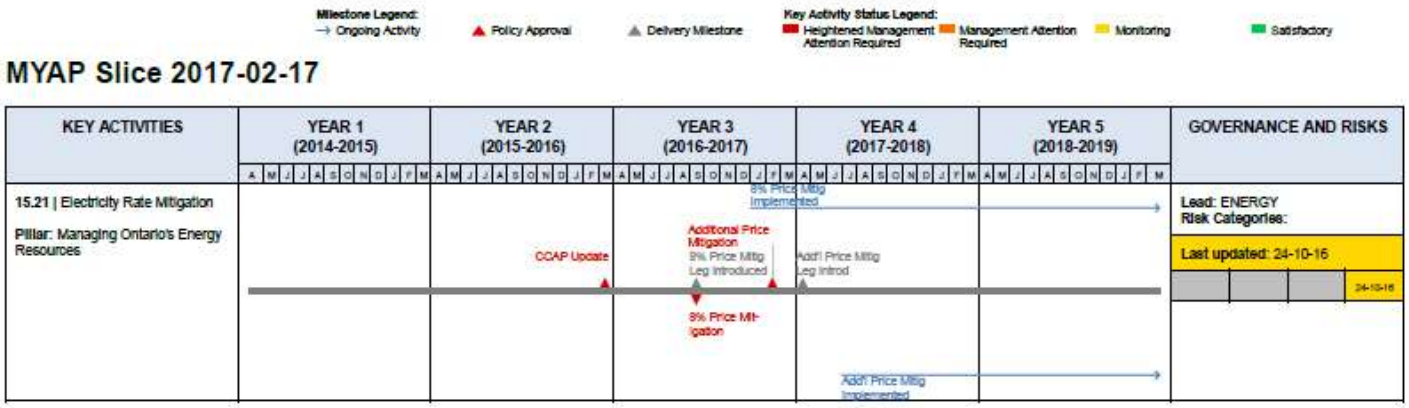
8. ENERGY report to LRC and Cabinet in winter 2017 with legislative amendments to implement the above initiatives, as necessary.

9. ENERGY to report back to LRC and Cabinet for approval of any supporting regulations and complementary regulatory amendments in winter 2017.

10. ENERGY and MOF work with the Premier's Office and the Cabinet Office on the development and implementation of an integrated communications strategy.

APPENDIX A: Multi-Year Action Plan

Below is an extract taken from the MYAP which demonstrates the overall strategic plan for the initiative that this policy submission supports. This excerpt represents the approved plan to date, and may not reflect the specific policy and delivery timelines identified in the Cabinet Minute above.



From:	John Kim
To:	Bruno Amara
Subject:	FW: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Date:	Monday, May 01, 2017 9:07:39 AM
Attachments:	DLEG-847_ID49011_LRC_CBN- Rate Mitigation- Draft- No materials- V1.docx
Importance:	High

Another one for EOD today…..

From: Strang, James (TBS) [mailto:James.Strang@ontario.ca]
Sent: Monday, May 01, 2017 8:51 AM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>; Paul Kaufman (MOHLTC) <Paul.Kaufman@ontario.ca>; Nick Smook (MOF) <Nick.Smook@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Chris Skubel (MGS) <Chris.Skubel@ontario.ca>; Nina Arbabzadeh (EDU) <Nina.Arbabzadeh@ontario.ca>; Patrick Laughton (MOF) <Patrick.Laughton@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>
Subject: FW: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Importance: High

Draft note from Cabinet Office. They're looking for feedback by EOD today (May 1).

I'm happy to coordinate any responses.

James

From: Hindmarch-Watson, Tim (CAB)
Sent: April 28, 2017 3:46 PM
To: Fung, Felix (TBS); Skubel, Chris (TBS)
Cc: Strang, James (TBS); Moore, Karen (CAB)
Subject: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Importance: High

Hi Felix and Chris:

As mentioned earlier in the week, please find attached the draft CBN re the rate mitigation legislation for the TBS' review (password same as previous materials). This has been prepared with no materials and should be reviewed closely. I have left comments in the margin where I am looking for specific review or confirmation of particular details. I am interested in ensuring alignment in how we are characterizing the proposal and its risks.

The note is a bit on the longer side at the moment, so suggestions to economize without losing key pieces would also be helpful.

The note is undergoing concurrent review with Energy and my management now. My ADM will likely pass this along to Cindy and Karen for concurrent review given the time crunch, but please feel to pass along as well.

Please try to have any comments to me by EOD on Monday so I can get it to my DM and the Secretary on Tuesday.

Have a great weekend,

Tim Hindmarch-Watson
Policy Advisor
Justice, Resource and Environmental Policy
Policy and Delivery Division
Cabinet Office
416-325-4618

DRAFT-WITHOUT MATERIALS

CABINET BRIEFING NOTE AND LRC RECOMMENDATION

Energy

DRAFT Financing Global Adjustment

Commented [HT1]: Name as in EVista- Will update as item is updated.

Cabinet (info)	TB/MBC	Cabinet	Announcement	TB/MBC	Cabinet	Introduction
Feb 15, 2017	March 1, 2017	March 1, 2017	March 2, 2017	May 9, 2017	May 10, 2017	May 11, 2017

Summary of Proposal

The proposed legislation contains a variance from Cabinet direction, which is detailed in the ministry's variance memo and within this note.

Context for Decision:

This proposal follows Cabinet direction to the Ministry of Energy to take the necessary steps to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers.

The proposed legislation enables approaches to fairly allocate the costs of the Global Adjustment (GA) amongst current and future electricity rate payers, and help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding. To fully implement the initiative, the Ministry of Energy will be seeking future approvals for regulations identified in the proposed bill, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The proposed legislation:

1. Establishes a framework to finance a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the costs of the GA more fairly across ratepayers between July 1, 2017 and April 30, 2047:
    - July 1, 2017 to April 20, 2018, reduces after-tax electricity costs for specified consumers by 25%.
    - May, 1 2018 to April 31, 2022, electricity rates will be set by Order in Council (OIC) with the intention to keep increases in line with the Consumer Price Index (CPI) (See page 17- Fiscal Pressure)
    - May 1, 2022 to April 30, 2047, electricity rates will increase at a pace that ensures recovery of the accumulated debt, interest costs and

administrative costs, around 10% of total electricity costs. (See page 14- Future Impacts to Electricity Rates)

Commented [HT2]: TBC by Energy

- Through the bill and subsequent amendments to the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998, e*xpanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), to provide for appropriate oversight, putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs. (See page 19- OPG Mechanism)

2. Expands electricity support programs for the most vulnerable consumers and moves program costs from the rate base to the tax base. The bill amends the *Ontario Energy Board Act, 1998* to:
   - Move the recently expanded Ontario Electricity Support Program (OESP) to the tax base, transition the program to be administered by the Crown, and to enable information exchange between the Ontario Disability Support Program to potentially allow for automatic enrolment procedures to be established;
   - Amends the Ontario Energy Board Act, 1998 to enable a broadening of the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution costs for customers with the highest distribution rates and moving the program to the tax base; and,
   - Amends the *Ontario Energy Board Act, 1998* to require the establishment of a government funded program to provide a delivery credit to prescribed on reserve customers.

Terms you need to know

- **Global Adjustment (GA) –** The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation and demand management programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.

  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers.'
- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.
- **Special Purpose Vehicle (SPV) –**
- **Security Interest –**

Commented [HT3]: TBS: Do you have standard language that you would recommend using?

Why does Ontario need these changes? Why now?

Addressing rising electricity prices is among the highest priorities for Ontarians. There has been increased media attention and public pressure for the government to provide ratepayer relief. On March 2, 2017, the Ontario government announced its electricity rate mitigation package, Ontario's Fair Hydro Plan, which included the initiatives contained in the proposed legislation. The government has committed to implement further rate relief measures by the summer 2017.

What is the expected cost to government?

The total cost of the proposal is $4.1B [TBC] in 2017/18, $1,599M funded through the fiscal plan and $2.5B to be funded through the electricity rate base.

Commented [HT4]: TBC as this includes the equity injection.

TABLE 1: Cost Impact ($M)	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	499	753	829	892
GA Financing	2,534	2,668	2,942	3,420
OPG Loan / Share Purchase (i.e. equity injection)	1,100	?	?	?
Cumulative Total	4,133	3,421	3,771	4,312

Commented [HT5]: TBC

The proposed bill identifies OPG as the Financial Services Manager and would therefore take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province ($1.1 B in 2017-18; See Table 1) and external private sector financing. The structure has been designed to increase gross debt of the Province (to finance the equity injection in OPG), increase interest on debt related to that external debt, increase net investment in OPG, and increase earnings of OPG. The equity investment has been structured so that the underlying regulatory asset will offset the additional debt to not impact the province's net debt.

The estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $499M in 2017/18, growing to $753M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as program uptake and future energy consumption of various consumer groups, and are therefore subject to change.

TABLE 2: Fiscal Impact ($M)	17-18	18-19	19-20	20-21
RRRP Enhancements*	344	472	484	497
OESP Enhancements	140	261	325	375
First Nations On-Reserve Delivery Credit	15	20	20	20
Total	499**	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.
****Note**: Value adjusted from $665 million to reflect July 2017 implementation.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's options to address electricity rate concerns in the future. (See page 17- Fiscal Pressure)

What are the key steps to deliver this proposal?

- May 11, 2017 - introduce legislation.
- Spring- Summer 2017- Energy to work with IESO, OEB, OPG, and LDCs on the implementation of the Fair Hydro Plan.
- Information postings of proposed regulations.
- June ?? 2017- Energy to bring regulations to TB/MBC.
- June ??, 2017- Energy to bring regulations to LRC/Cabinet.
- July 1st, 2017- the remaining Fair Hydro Plan reductions and programs would take effect. Programs that are not established on this day for technical implementation issues will have benefits that are retroactively applied to customers once program is operational in individual LDCs.

Commented [HT6]: Energy: Pelase refine

How will the changes be communicated?

Commented [HT7]: CO and Energy Comms to review.

On March 2, 2017, the Premier made a high profile announcement of additional relief to reduce electricity costs for Ontarians. Coinciding with this event, there was news releases with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Building on the previous announcements, on May 11, 2017, the Premier is to make a high profile announcement of the plans to introduce the necessary legislation to implement Ontario's Fair Hydro Plan to provide additional relief to reduce electricity costs for Ontarians.

Given the risk identified that the GA financing may have a fiscal impact, communication will need to be clear that the proposed draft legislation meets the legal, accounting and financial requirements to not have a fiscal impact.

Notes and Recommendation from LRC

LRC item direct to Cabinet.

Cabinet Office Analysis

The proposed legislation allows for the implementation of the main elements of Ontario's Fair Hydro Plan announced March 2 to provide further rate relief to Ontario electricity ratepayers. The Global Adjustment (GA) smoothing proposal will provide 25% in rate relief in aggregate (including the 8% announced in 2016) for eligible consumers of the Regulated Price Plan (RPP) between July 1, 2017 and April 31, 2018 ("The Fair Adjustment"). Electricity rates would then change by amounts prescribed in the regulations under the bill, with the intention to keep rate increases in line with Consumer Price Index (CPI) between May 1, 2018 and April 30, 2022.

Commented [HT8]: Need to add estimate of benefits from the other programs, particularly RRRP as I think the impact, along with GA, is going to be closer to 40 or 50% for some customers

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the summer of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement, and conservation. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and, Ontario's Fair Hydro Plan combined with new policy or program announcements in the LTEP, will provide the comprehensive future planning perspective for Ontario's energy sector.

Commented [HT9]: Confirm with PO and Energy

1. Refinancing the Global Adjustment

The proposed legislation establishes the framework to defer some of the current GA costs to future ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The methodology is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to continue to be able to utilize and benefit from these assets, and that they will also reduce the need to finance the development of new generation assets in the future.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations leaves the process more susceptible to constitutional challenge and could jeopardize the nature of the clean energy adjustment being a regulatory charge, and risk it being deemed an unlawful tax. The bill has been drafted to mitigate this risk and clearly articulates the desire to fairly attribute intergenerational costs and benefits. In addition the

bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. (See page 16- Legal Risk)

Key elements of this component of the bill include:

Fair Adjustment

- July 1, 2017- April 30, 2018- the bill outlines an immediate 25% reduction in rates for eligible consumers in recognition of the investment in clean energy initiatives since 2005.
- May 1, 2018- April 30, 2022- the bill allows for rates to be set by regulation, with the intention that rates will increase in line with CPI over this time, consistent with government commitments. (See page 17- Fiscal Pressure)
- Ontario Energy Board (OEB) would calculate appropriate adjustments for "specified consumers".

Clean Energy Adjustment

- Determined by Ontario Power Generation (OPG) as the Financial Services Manager, the clean energy adjustment is the amount that will be recovered from consumers in the future to pay principle, interest, transaction costs and administrative costs associated with the fair adjustment (regulatory/investment asset).
- Will be subject to true-up process that will reconcile actual amounts collected with expected amounts.
- May 1, 2022- April 30, 2047- to be invoiced to consumers and collected as part of the electricity bills through existing Independent Electricity System Operator (IESO) and Local Distribution Companies (LDC) processes.
- In accordance with the regulations, the OEB to set the rate at which "specified consumers" are invoiced to recover the clean energy adjustment.

Fair Allocation Amount

- The fair allocation amount is calculated by the Financial Services Manager consistent with the principles of the bill.
- Established for the purposes of allocating the costs of the clean energy initiative to provide inter-generational fairness to rate payers; and aligning funding obligations that may be incurred during each reference period (typically every 6 months).
- Provided to the Minister of Energy who will ensure that the information is made public in an appropriate way.
- Principles established in the bill require proper match over time between the costs of providing facilities for clean electricity generation and conservation and the consumers who benefit from these investments in the system. (Page 16- Legal Risk; See page 17- Fiscal Pressure)

Financing Plan

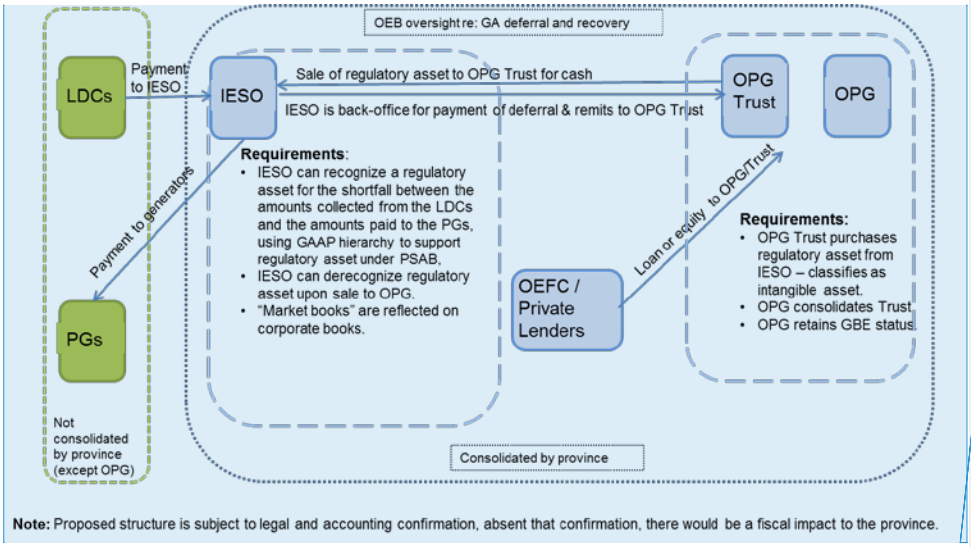
- Prepared by the Financial Services Manager to determine if potential funding obligations should be incurred to acquire an investment interest in accordance with the bill.
- Provided to the Minister Energy who may remove the Financial Services Manager if the Financing Plan is not consistent with the principles of the bill and the Financial Services Manager has been given the opportunity to address the Minister's concerns.
- May be amended as determined by the Financial Services Manager.
- In practical terms, the Financing Plan is intended to show how debt (with varying degrees of incurrence dates, maturities, interest rates) will be used over time.
- The OEB would review the administrative costs of the Financial Services Manager.

Regulatory Asset and Investment Asset

- Regulatory Asset created as IESO incurs a funding shortfall equal to the difference between the rates it receives after the implementation of the Fair Adjustment and the amounts owed under generation and conservation contracts (i.e. the comparison rate minus rates after fair adjustment).
- Subject to OEB approval, IESO would record the funding shortfall as a regulatory asset. IESO would also have collection rights to recover the funding shortfall, which may be sold. Collection rights are deferred until May 1, 2022.
- The Financing Plan contemplates the Financial Services Manager establishing financing entities (OPG Trust/Special Purpose Vehicle (SPV)) to buy the regulatory asset and the associated rights in exchange for a payment to the IESO. IESO would use the payment to offset the funding shortfall.
- This purchase and sale turns the regulatory asset into an investment asset. The transfer includes the rights to collect amounts related to the clean energy adjustment in a manner consistent with the bill.
- The investment interest owner may further sell all or a portion of its rights and interests including by dividend or undivided interest, consistent with the Financing Plan. An investment interest owner may also grant a security interest over all or a portion of its right, title and interests to secure a funding obligation.
- After 5 years (May 1, 2022) the IESO has the rights to collect its funding shortfall from ratepayers in the event that a portion of the regulatory asset is not bought and sold. (See page 17- Fiscal Pressure)
- The rights associated with the investment asset require IESO and LDCs to collect money from rate payers as agent of the investment asset owner.

Crown Undertaking (Guarantee or Backstop)

- The Crown would undertake not to do anything to adversely affect an investment asset or funding obligation, including hinder, impair, prejudice the charging, collection or remittance of the clean energy adjustment.
- The Minister of Energy, with LGIC approval, may enter into agreements for compensation with any person in respect of the bill.
- The Minister of Finance, with LGIC approval, may agree to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.



Commented [HT10]: Energy: Please provide updated chart with terminology from the legislation embedded.

The bill establishes a structure in which the IESO records the GA cost recovery deferral is recorded as a regulatory asset (regulated by the OEB), supported at its foundation by the fact that the refinancing of the GA is not a reduction in the GA, but rather a deferral to be collected at a future time ("The Fair Adjustment"). Eligible consumers would receive a 25% reduction in electricity rates from July 1, 2017 to April 30, 2018. The IESO may then sell the regulatory asset, at which time it becomes an investment asset. The investment asset owner (OPG Trust/SPV or trust "financing entities") may then further sell or securitize all or part of the regulatory asset to other parties in exchange for a funding obligation.

Commented [HT11]: Section to be compared against the legislation's compendium when available.

Under the proposed framework, OPG, acting in its role as the "Financial Services Manager", and following the principles in the bill, would regularly calculate the "Fair Allocation Amount" to ensure a proper match of the allocation of the intergenerational costs and benefits. To recoup the costs associated with the fair adjustment, consumers, starting in May 2022 would be invoiced the "Clean Energy Adjustment" on their electricity

bills through existing IESO and LDC processes. The OEB would set the rates at which the clean energy adjustment could be collected.

OPG is planning to create a SPV or Trust to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the SPV/Trust. The variability will likely largely result from the financing of the SPV/Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

OPG Trust/SPV will ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province (See Table 1 on page 4) and external financing through a securitization of the investment asset. The structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. The proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

The legislation commits the government to backstop the financing if the government were to ever hinder the collection of the clean energy adjustment including revoking or changing the legislation or regulations. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to occur. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time, but could be as high as $1-1.5B annually [TBC]. It should be noted that the external borrowing by the OPG Trust will be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future.

Commented [HT12]: Based on commentary from implementation meetings. Don't believe this includes estimates of private lender borrowing costs. Please advise

The proposed structure has been extensively reviewed by KPMG (Energy advisor and IESO auditor), and the firm has provided an accounting opinion confirming the validity of the structure under PSAB [TBC]. This opinion can be made public [TBC] to support the governments rational for the plan. In addition, MAG and Blakes are confident that the structure is constitutionally sound, but that this will depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism. Based on the current analysis there is a moderately high risk that the GA financing will have a fiscal impact on the Province before 2022.

Commented [HT13]: Energy to confirm

For clarity: the following structural requirements have been met: [TBC]

Commented [HT14]: TBC based on receipt of professional opinions etc.

- IESO requirements :
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB;
  - IESO can derecognize regulatory asset upon sale to OPG;

  - "Market books" are reflected on corporate books; and,
  - OEB to act as regulator.
- OPG requirements:
  - OPG Trust/SPV purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust/SPV; and
  - OPG retains GBE status.

However, despite the fact that the structure has satisfied the legal, fiscal, and accounting requirements outlined in the policy submission, there remain some fundamental risks that the province would need to accept:

- The structure is unique in Canada and possibly the world, which increases the risk or unknown factors impacting its performance. The use of securities mechanisms to address debt is more common in the Unites States, but officials are currently unaware of any example that would compare to the size, complexity, or fluidity of what is proposed;
- Complexity of the structure and length of deferral/recovery increases risk and decrease transparency;
- Government would have no ability to control electricity prices resulting from these changes outside of recourse to the fiscal plan;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work and will have limited control over OPG's direct operations as the Financial Services Manager. While removal of the Financial Services Manager is provided for in the bill, in practice this may prove problematic once the system is operational; and
- Private lenders and rating agencies may disagree with the assessment of the size of the Fair Allocation Amount which would increase the risk of the asset and therefore its saleability. Could decrease amount of rate reduction achievable under this mechanism.

2. Enhancing electricity supports for vulnerable Ontarians and shifting costs from rate payer funded to government funded:

<u>Moving the Ontario Electricity Support Program (OESP) to the tax base:</u>

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The program was launched in January 2016 and has had roughly 30% enrolment. Consistent with Cabinet direction, the program was recently expanded to increase the existing benefit scales by 50% and provide additional credits to more households.

Under the expanded program the basic OESP benefit scale increased from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers.

The proposed bill amends the *Ontario Energy Board Act, 1998* to allow for the program to transition from the rate base to the tax base, and become administered by a Ministry or other entity as may be prescribed. The cost to the fiscal plan would be $186M in 2017/18. The bill provides further amendments designed to allow information sharing between the Ontario Disability Support Program (ODSP) and the entity responsible for OESP. The intention is that this information sharing will allow for the automat enrolment of individuals that are already enrolled under the ODSP, but it is currently unknown to what extent this will significantly impact the enrolment under the program.

Commented [HT15]: ENERGY: do you have any numbers on this point? Were other programs considered other than ODSP? Can we put something in about continuing efforts to improve the enrolment?

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a distribution rate protection program and the ability to cap the distribution charges of prescribed distributors. The amendments also establish that this program will be funded by the tax base.

The intention is to draft regulations permitted under this section of the bill to Harmonize the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to for that LDC to receive RRRP. These enhancements are expected to benefit approximately 800,000 customers in Ontario.

Targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $344M in 2017/18, $243M of which is a transfer of existing programs to the tax base. If the legislation and required regulations are passed, the program would become active as of July 1, 2017. It is possible that for technical reasons not all LDCs will be able to

Commented [HT16]: Need new estimate of transferred program cost starting from July 1.

implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

On-reserve First Nations Delivery Credit

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a tax base funded delivery credit program for on-reserve customers with the details as prescribed in the regulations. The intention is to enact regulations that would eliminate the delivery charge for all on-reserve First Nation household customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.

Eligible recipients would be automatically enrolled in the program (~21,500 customers) and receive an average monthly benefit of $85. The program will cost approximately $20M annually and, provided the legislation and regulations are passed, would become effective July 1, 2017. It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Expected Impacts of the Proposal on Electricity bills:

The impact of proposed legislation to an eligible customer's bill in July 2017 is a 25% decrease (combined with the 8% from ORECA effective Jan. 1, 2017), followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017. Between May 2018 and April 2022 electricity rates will be set by regulation with the intention that rate increases would be kept in line with CPI. Customers that are eligible for the RRRP enhancements and the OESP will see further reductions in their electricity rates beyond the 25%

Commented [HT17]: ENERGY: Can you provide analysis on the impact for customers that will receive the RRRP etc?

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

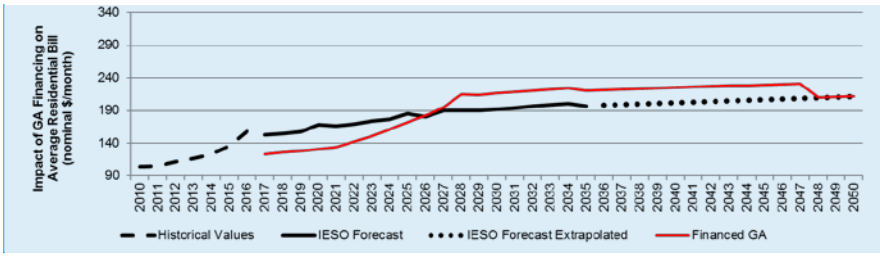
Commented [HT18]: Energy to provide updated chart

Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.*

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on the GA deferral portion of the plan, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future outside of recourse to the fiscal plan.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

Commented [HT19]: ENERGY to confirm if this needs to be updated.

The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future. To mitigate against the risk that increased self-generation poses, the bill provides that the Clean Energy Adjustment may not be "set-off". In other words, it would exist as a separate and distinct component of the bill that could not be reduced by methods such as net-metering.

Not all generating assets will continue operations at the end of their contract. If the Fair Allocation Amount is not properly designed, future rate payers will be paying the cost for assets that are no longer in use, which would be unconstitutional (See page 16- Legal Risk). High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. The structure of the GA deferral was designed to result in an (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on

funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result. The structure is also contingent on the size of the GA deferral that is seen as possible, which, as previously mentioned, increases the likelihood of pressures on the fiscal plan in the near future. (See page 17- Fiscal Pressure)

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

The Ontario Auditor General (OAG) has been briefed on the proposal and has had access to the March 1, 2017 policy submission for the Fair Hydro Plan. While the auditors of OPG and IESO have provided their assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief [TBC] can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

Commented [HT20]: To be updated when Navigant prelim report and OPG analysis complete

Legal Risk – constitutionality of financing the GA

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

Former Supreme Court Justice Binnie has provided legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge

(and would be characterized as a tax).Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities. By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The bill has been drafted to mitigate the constitutional risk of the proposal and clearly articulates the desire to balance the costs and benefits of assets across generations. The bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. In addition, external consultant Navigant has provided an interim report on the costs and benefits of the long lived assets which supports the previous conclusions regarding the size of the GA deferral that would be supportable. This is further supported by the conclusions of OPG's independent analysis of the question.

Commented [HT21]: TBC

Commented [HT22]: ENERGY please confirm. Need to clearly articulate any differences that may exist between these analyses

MAG and Blakes are confident that the structure is constitutionally sound, but, as identified above, that this will highly depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism.

In addition, the structure of the GA refinancing means that the infrastructure included as part of the clean energy adjustment (i.e. amortized over 30 instead of 20 years) will need to be in service over the entire 30 year amortization period or provide benefits to the system in some way over the whole period. In practice this may mean that the government will have limited ability to alter the generation mixture included under the clean energy adjustment, including natural gas generation facilities, which may at some point be seen as inconsistent with the province's commitments to reduce greenhouse gasses. This risk has been mitigated in the bill, by allowing for prescribed natural gas generation contracts to be excluded from the clean energy benefit calculation.

Commented [HT23]: Needs ground truthing

Fiscal Pressure

Commented [HT24]: TBS please review closely

This proposal aligns with the 2017 Budget fiscal plan, but involves significant ongoing risks. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.
- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government has commissioned external opinions on the legal, fiscal, and accounting requirements. Energy's advisor and IESO auditor, KPMG, has provided an accounting opinion that the principles of the structure are sound, and this opinion can be released publicly when desired. This opinion may not change the likelihood of a contrary opinion by the OAG, but does provide a tool for government to point to in justifying its decisions.

Commented [HT25]: TBC

There is also a risk that credit rating agencies and the market may take an alternate view as to the size of the GA deferral that is possible before becoming unconstitutional. If the Fair Adjustment exceeds this analysis, it may increase the perceived risk of the investment asset and therefore its saleability, which would result in reduced market uptake and reduce the amount of near term rate reduction that would be achievable under the plan. This is why the increases in electricity rates between May 2018 and April 2022 are to be set by regulation as opposed to legislating that they increase by CPI. It may not be possible to legally hold the rate reductions to increase by CPI, and if the government wanted to hold to this commitment, the difference would need to come out of the fiscal plan, which has not been forecasted. Each percentage point of reduction that the structure cannot provide would result in an approximate $150M [TBC] cost to the tax base. This has not been provided for in the bill, but it is likely that the government will receive questioning along these lines and why the previously committed CPI increases are not explicitly stated in the bill.

Commented [HT26]: Needs ground truthing

There may be also some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG was provided copies of the Cabinet Submission seeking policy approval for Ontario's Fair Hydro Plan and has been briefed by officials from the Ministry of Energy. The OAG will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

Commented [HT27]: Energy to update.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Commented [HT28]: Energy to update from discussion with FAO

OPG Mechanism

- Accountability
  - Bill attempts to balance the independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
  - Accountability to the government or the public, amount of government control of the entity, including future rate increases.

Commented [HT29]: Needs to be recast given limitation on control after initiated

- New structure
  - Structure is complex, involving:
    - IESO as originator of the regulated asset and responsible for flow of funds;
    - OEB as regulator of the new mechanism;
    - OPG responsible for financing and managing the mechanism; and
    - The Province providing ongoing equity capital infusions to OPG and backstop.
  - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).
  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs. OEB would review OPG's cost as the Financial Services Manager
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

Program Design and Implementation

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake)
- The OESP matrix no longer follows the Low Income Measure (LIM) which creates inconsistencies between how programs are applied and may put pressure other provincial programs to increase funding amounts.

Benefits for all Consumer Classes

The Fair Hydro Plan includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) and other targeted relief for vulnerable Ontarians, but likely to question the longer term implications. Some individuals and organizations will perceive the GA smoothing as unduly burdening future generations. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to “keep electricity rate affordable”. Will likely respond positively to the recent changes to expand ICI eligibility to some manufacturing and greenhouse Class B customers, but may be more neutral the remainder of the initiatives.

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Commented [HT30]: Confirm work still ongoing on this piece

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Métis, non-status, First Nations without reserve land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – May react negatively towards any price relief that is not directly tied to energy conservation. May criticize the inclusion of natural gas electricity generation as part of the "Clean Energy Adjustment."

Solar PV sector – May react negatively to price relief as it can be seen to undercut the affordability of distributed renewable generation assets such as solar PV, and undermines the economic arguments behind net metering.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

If passed, the legislation will enable the price mitigation measures to begin to take effect on July 1, 2017. The 2017 LTEP will be released to the public in the summer 2017 and would reinforce/integrate with Ontario's Fair Hydro Plan. Regulations are required under the major components of the legislation in order to fully implement the initiative and clarify program details.

Commented [HT31]: TBC

1. **Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs**

Consumers will see an immediate reduction of their electricity bills as of July 1, 2017. The establishment of the regulatory asset and purchase by OPG is expected to take three to six months to implement following the introduction of enabling legislation.

Commented [HT32]: This needs more elaboration and confirmation. Last discussion I was part of on this point hadn't landed exactly how long it is expected that the IESO retains the Reg Asset for before sale to OPG.

2. **Enhancing Social and Conservation Programs**

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate). The amendments made in this bill allow for a transition period where the program continues to draw on the existing IESO variance account until the account can no longer maintain the program. IESO is required to notify the Ministry of Energy when it expects the variance account to be depleted (likely sometime in the fall). At this time

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the changes to this program (delivery mechanism, funding source, application system, eligibility).

Commented [HT33]: Requires update

RRRP Enhancement

Regulations would be required to establish the details of the program. OEB estimates that the implementation would take at least six months after finalizing regulations. For this reason it is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st which will put an immediate pressure on the OEB and LDCs as implementation is required no later than October 1, 2017. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

On-Reserve First Nations Delivery Credit

The OEB would need to work with the LDCs to identify the eligible on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Once available, the rebate would appear on customer's electricity bills as a reduction in, or credit for, their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in summer-fall 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – On January 1, 2016 the government ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, and put in place the low-income targeted OESP, effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Industrial Conservation Initiative – Ministry of Energy program implemented in January 2011 to help large industrial consumers reduce their electricity costs by shirfitn electricity consumption away from peak periods. As part of the Fair Hydro Plan, ICI eligibility was recently expanded to allow for the participation of the manufacturing and greenhouse sectors with an average month peak demand greater than 500 kilowatts (kW) and less than or equal to 1 megawatt (MW). ICI benefits all electricity consumers by decreasing the need for costly peaking generation over the long term.

Affordability Fund – approved as part of Ontario's Fair Hydro Plan, and under development, the Affordability Fund is intended to expand access to conservation funding to targeted consumers that do not currently qualify as low-income for the purposes of the Home Assistance Program (HAP).

Commented [HT34]: insert

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs. The Green Ontario Fund (GreenON)- is tasked to develop programs and services designed to:

- Reduce greenhouse gas emissions from housing from buildings and the production of goods; and

- Increase uptake and overcome market barriers of low-carbon technologies and processes.

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

Commented [HT35]: To get updated language on the RTA amendments

Proposed Cabinet Minute

Approval of draft bill for introduction

Cabinet approved version XX-XX of this draft legislation for introduction, subject to the following:

1. The Office of Legislative Counsel is authorized to prepare a French version and to make minor adjustments to the English version, for the purpose of ensuring consistency between the two versions and making other improvements or correcting mistakes discovered in the translation process.

From:	Strang, James (TBS)
To:	Didem Proulx (MTCU); Helen Graham (MOF); Paul Kaufman (MOHLTC); Nick Smook (MOF); John Kim
Cc:	Felix Fung (MOF); Chris Skubel (MGS); Nina Arbabzadeh (EDU); Patrick Laughton (MOF); Hosick, Sarah (TBS); Sandy Luk (MOHLTC)
Subject:	FW: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Date:	Monday, May 01, 2017 8:50:53 AM
Attachments:	DLEG-847_ID49011_LRC_CBN- Rate Mitigation- Draft- No materials- V1.docx
Importance:	High

Draft note from Cabinet Office. They're looking for feedback by EOD today (May 1).

I'm happy to coordinate any responses.

James

From: Hindmarch-Watson, Tim (CAB)
Sent: April 28, 2017 3:46 PM
To: Fung, Felix (TBS); Skubel, Chris (TBS)
Cc: Strang, James (TBS); Moore, Karen (CAB)
Subject: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Importance: High

Hi Felix and Chris:

As mentioned earlier in the week, please find attached the draft CBN re the rate mitigation legislation for the TBS' review (password same as previous materials). This has been prepared with no materials and should be reviewed closely. I have left comments in the margin where I am looking for specific review or confirmation of particular details. I am interested in ensuring alignment in how we are characterizing the proposal and its risks.

The note is a bit on the longer side at the moment, so suggestions to economize without losing key pieces would also be helpful.

The note is undergoing concurrent review with Energy and my management now. My ADM will likely pass this along to Cindy and Karen for concurrent review given the time crunch, but please feel to pass along as well.

Please try to have any comments to me by EOD on Monday so I can get it to my DM and the Secretary on Tuesday.

Have a great weekend,

Tim Hindmarch-Watson
Policy Advisor
Justice, Resource and Environmental Policy
Policy and Delivery Division
Cabinet Office
416-325-4618

DRAFT-WITHOUT MATERIALS

CABINET BRIEFING NOTE AND LRC RECOMMENDATION

Energy

DRAFT Financing Global Adjustment

Commented [HT1]: Name as in EVista- Will update as item is updated.

Cabinet (info)	TB/MBC	Cabinet	Announcement	TB/MBC	Cabinet	Introduction
Feb 15, 2017	March 1, 2017	March 1, 2017	March 2, 2017	May 9, 2017	May 10, 2017	May 11, 2017

Summary of Proposal

The proposed legislation contains a variance from Cabinet direction, which is detailed in the ministry's variance memo and within this note.

Context for Decision:

This proposal follows Cabinet direction to the Ministry of Energy to take the necessary steps to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers.

The proposed legislation enables approaches to fairly allocate the costs of the Global Adjustment (GA) amongst current and future electricity rate payers, and help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding. To fully implement the initiative, the Ministry of Energy will be seeking future approvals for regulations identified in the proposed bill, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The proposed legislation:

1. Establishes a framework to finance a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the costs of the GA more fairly across ratepayers between July 1, 2017 and April 30, 2047:
    - July 1, 2017 to April 20, 2018, reduces after-tax electricity costs for specified consumers by 25%.
    - May, 1 2018 to April 31, 2022, electricity rates will be set by Order in Council (OIC) with the intention to keep increases in line with the Consumer Price Index (CPI) (See page 17- Fiscal Pressure)
    - May 1, 2022 to April 30, 2047, electricity rates will increase at a pace that ensures recovery of the accumulated debt, interest costs and

administrative costs, around 10% of total electricity costs. (See page 14- Future Impacts to Electricity Rates)

Commented [HT2]: TBC by Energy

- Through the bill and subsequent amendments to the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998, e*xpanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), to provide for appropriate oversight, putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs. (See page 19- OPG Mechanism)

2. Expands electricity support programs for the most vulnerable consumers and moves program costs from the rate base to the tax base. The bill amends the *Ontario Energy Board Act, 1998* to:
   - Move the recently expanded Ontario Electricity Support Program (OESP) to the tax base, transition the program to be administered by the Crown, and to enable information exchange between the Ontario Disability Support Program to potentially allow for automatic enrolment procedures to be established;
   - Amends the Ontario Energy Board Act, 1998 to enable a broadening of the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution costs for customers with the highest distribution rates and moving the program to the tax base; and,
   - Amends the *Ontario Energy Board Act, 1998* to require the establishment of a government funded program to provide a delivery credit to prescribed on reserve customers.

Terms you need to know

- **Global Adjustment (GA) –** The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation and demand management programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.

  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers.'
- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.
- **Special Purpose Vehicle (SPV) –**
- **Security Interest –**

Commented [HT3]: TBS: Do you have standard language that you would recommend using?

Why does Ontario need these changes? Why now?

Addressing rising electricity prices is among the highest priorities for Ontarians. There has been increased media attention and public pressure for the government to provide ratepayer relief. On March 2, 2017, the Ontario government announced its electricity rate mitigation package, Ontario's Fair Hydro Plan, which included the initiatives contained in the proposed legislation. The government has committed to implement further rate relief measures by the summer 2017.

What is the expected cost to government?

The total cost of the proposal is $4.1B [TBC] in 2017/18, $1,599M funded through the fiscal plan and $2.5B to be funded through the electricity rate base.

Commented [HT4]: TBC as this includes the equity injection.

TABLE 1: Cost Impact ($M)	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	499	753	829	892
GA Financing	2,534	2,668	2,942	3,420
OPG Loan / Share Purchase (i.e. equity injection)	1,100	?	?	?
Cumulative Total	4,133	3,421	3,771	4,312

Commented [HT5]: TBC

The proposed bill identifies OPG as the Financial Services Manager and would therefore take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province ($1.1 B in 2017-18; See Table 1) and external private sector financing. The structure has been designed to increase gross debt of the Province (to finance the equity injection in OPG), increase interest on debt related to that external debt, increase net investment in OPG, and increase earnings of OPG. The equity investment has been structured so that the underlying regulatory asset will offset the additional debt to not impact the province's net debt.

The estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $499M in 2017/18, growing to $753M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as program uptake and future energy consumption of various consumer groups, and are therefore subject to change.

TABLE 2: Fiscal Impact ($M)	17-18	18-19	19-20	20-21
RRRP Enhancements*	344	472	484	497
OESP Enhancements	140	261	325	375
First Nations On-Reserve Delivery Credit	15	20	20	20
Total	499**	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.
****Note**: Value adjusted from $665 million to reflect July 2017 implementation.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's options to address electricity rate concerns in the future. (See page 17- Fiscal Pressure)

What are the key steps to deliver this proposal?

- May 11, 2017 - introduce legislation.
- Spring- Summer 2017- Energy to work with IESO, OEB, OPG, and LDCs on the implementation of the Fair Hydro Plan.
- Information postings of proposed regulations.
- June ?? 2017- Energy to bring regulations to TB/MBC.
- June ??, 2017- Energy to bring regulations to LRC/Cabinet.
- July 1st, 2017- the remaining Fair Hydro Plan reductions and programs would take effect. Programs that are not established on this day for technical implementation issues will have benefits that are retroactively applied to customers once program is operational in individual LDCs.

Commented [HT6]: Energy: Pelase refine

How will the changes be communicated?

Commented [HT7]: CO and Energy Comms to review.

On March 2, 2017, the Premier made a high profile announcement of additional relief to reduce electricity costs for Ontarians. Coinciding with this event, there was news releases with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Building on the previous announcements, on May 11, 2017, the Premier is to make a high profile announcement of the plans to introduce the necessary legislation to implement Ontario's Fair Hydro Plan to provide additional relief to reduce electricity costs for Ontarians.

Given the risk identified that the GA financing may have a fiscal impact, communication will need to be clear that the proposed draft legislation meets the legal, accounting and financial requirements to not have a fiscal impact.

Notes and Recommendation from LRC

LRC item direct to Cabinet.

Cabinet Office Analysis

The proposed legislation allows for the implementation of the main elements of Ontario's Fair Hydro Plan announced March 2 to provide further rate relief to Ontario electricity ratepayers. The Global Adjustment (GA) smoothing proposal will provide 25% in rate relief in aggregate (including the 8% announced in 2016) for eligible consumers of the Regulated Price Plan (RPP) between July 1, 2017 and April 31, 2018 ("The Fair Adjustment"). Electricity rates would then change by amounts prescribed in the regulations under the bill, with the intention to keep rate increases in line with Consumer Price Index (CPI) between May 1, 2018 and April 30, 2022.

Commented [HT8]: Need to add estimate of benefits from the other programs, particularly RRRP as I think the impact, along with GA, is going to be closer to 40 or 50% for some customers

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the summer of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement, and conservation. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and, Ontario's Fair Hydro Plan combined with new policy or program announcements in the LTEP, will provide the comprehensive future planning perspective for Ontario's energy sector.

Commented [HT9]: Confirm with PO and Energy

1. Refinancing the Global Adjustment

The proposed legislation establishes the framework to defer some of the current GA costs to future ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The methodology is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to continue to be able to utilize and benefit from these assets, and that they will also reduce the need to finance the development of new generation assets in the future.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations leaves the process more susceptible to constitutional challenge and could jeopardize the nature of the clean energy adjustment being a regulatory charge, and risk it being deemed an unlawful tax. The bill has been drafted to mitigate this risk and clearly articulates the desire to fairly attribute intergenerational costs and benefits. In addition the

bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. (See page 16- Legal Risk)

Key elements of this component of the bill include:

Fair Adjustment

- July 1, 2017- April 30, 2018- the bill outlines an immediate 25% reduction in rates for eligible consumers in recognition of the investment in clean energy initiatives since 2005.
- May 1, 2018- April 30, 2022- the bill allows for rates to be set by regulation, with the intention that rates will increase in line with CPI over this time, consistent with government commitments. (See page 17- Fiscal Pressure)
- Ontario Energy Board (OEB) would calculate appropriate adjustments for "specified consumers".

Clean Energy Adjustment

- Determined by Ontario Power Generation (OPG) as the Financial Services Manager, the clean energy adjustment is the amount that will be recovered from consumers in the future to pay principle, interest, transaction costs and administrative costs associated with the fair adjustment (regulatory/investment asset).
- Will be subject to true-up process that will reconcile actual amounts collected with expected amounts.
- May 1, 2022- April 30, 2047- to be invoiced to consumers and collected as part of the electricity bills through existing Independent Electricity System Operator (IESO) and Local Distribution Companies (LDC) processes.
- In accordance with the regulations, the OEB to set the rate at which "specified consumers" are invoiced to recover the clean energy adjustment.

Fair Allocation Amount

- The fair allocation amount is calculated by the Financial Services Manager consistent with the principles of the bill.
- Established for the purposes of allocating the costs of the clean energy initiative to provide inter-generational fairness to rate payers; and aligning funding obligations that may be incurred during each reference period (typically every 6 months).
- Provided to the Minister of Energy who will ensure that the information is made public in an appropriate way.
- Principles established in the bill require proper match over time between the costs of providing facilities for clean electricity generation and conservation and the consumers who benefit from these investments in the system. (Page 16- Legal Risk; See page 17- Fiscal Pressure)

Financing Plan

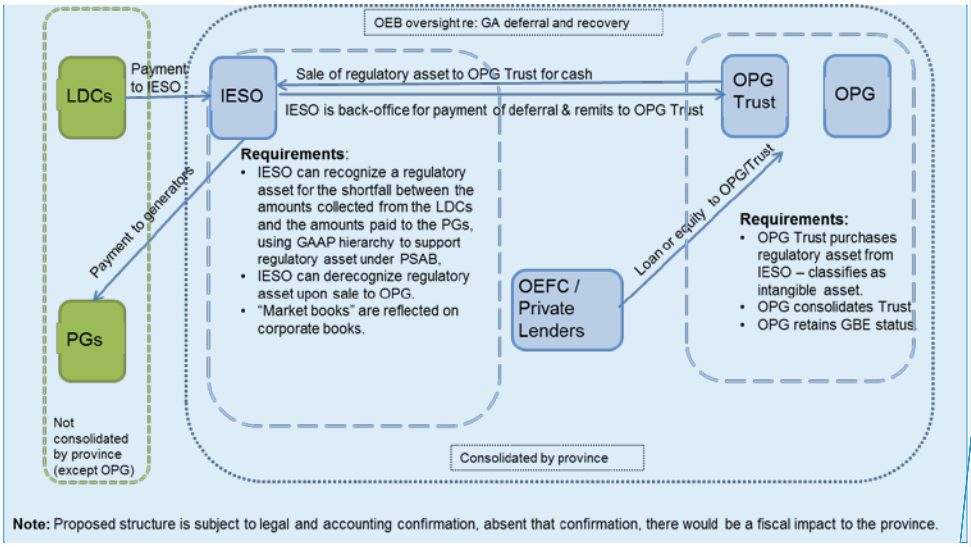
- Prepared by the Financial Services Manager to determine if potential funding obligations should be incurred to acquire an investment interest in accordance with the bill.
- Provided to the Minister Energy who may remove the Financial Services Manager if the Financing Plan is not consistent with the principles of the bill and the Financial Services Manager has been given the opportunity to address the Minister's concerns.
- May be amended as determined by the Financial Services Manager.
- In practical terms, the Financing Plan is intended to show how debt (with varying degrees of incurrence dates, maturities, interest rates) will be used over time.
- The OEB would review the administrative costs of the Financial Services Manager.

Regulatory Asset and Investment Asset

- Regulatory Asset created as IESO incurs a funding shortfall equal to the difference between the rates it receives after the implementation of the Fair Adjustment and the amounts owed under generation and conservation contracts (i.e. the comparison rate minus rates after fair adjustment).
- Subject to OEB approval, IESO would record the funding shortfall as a regulatory asset. IESO would also have collection rights to recover the funding shortfall, which may be sold. Collection rights are deferred until May 1, 2022.
- The Financing Plan contemplates the Financial Services Manager establishing financing entities (OPG Trust/Special Purpose Vehicle (SPV)) to buy the regulatory asset and the associated rights in exchange for a payment to the IESO. IESO would use the payment to offset the funding shortfall.
- This purchase and sale turns the regulatory asset into an investment asset. The transfer includes the rights to collect amounts related to the clean energy adjustment in a manner consistent with the bill.
- The investment interest owner may further sell all or a portion of its rights and interests including by dividend or undivided interest, consistent with the Financing Plan. An investment interest owner may also grant a security interest over all or a portion of its right, title and interests to secure a funding obligation.
- After 5 years (May 1, 2022) the IESO has the rights to collect its funding shortfall from ratepayers in the event that a portion of the regulatory asset is not bought and sold. (See page 17- Fiscal Pressure)
- The rights associated with the investment asset require IESO and LDCs to collect money from rate payers as agent of the investment asset owner.

Crown Undertaking (Guarantee or Backstop)

- The Crown would undertake not to do anything to adversely affect an investment asset or funding obligation, including hinder, impair, prejudice the charging, collection or remittance of the clean energy adjustment.
- The Minister of Energy, with LGIC approval, may enter into agreements for compensation with any person in respect of the bill.
- The Minister of Finance, with LGIC approval, may agree to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.



Commented [HT10]: Energy: Please provide updated chart with terminology from the legislation embedded.

The bill establishes a structure in which the IESO records the GA cost recovery deferral is recorded as a regulatory asset (regulated by the OEB), supported at its foundation by the fact that the refinancing of the GA is not a reduction in the GA, but rather a deferral to be collected at a future time ("The Fair Adjustment"). Eligible consumers would receive a 25% reduction in electricity rates from July 1, 2017 to April 30, 2018. The IESO may then sell the regulatory asset, at which time it becomes an investment asset. The investment asset owner (OPG Trust/SPV or trust "financing entities") may then further sell or securitize all or part of the regulatory asset to other parties in exchange for a funding obligation.

Commented [HT11]: Section to be compared against the legislation's compendium when available.

Under the proposed framework, OPG, acting in its role as the "Financial Services Manager", and following the principles in the bill, would regularly calculate the "Fair Allocation Amount" to ensure a proper match of the allocation of the intergenerational costs and benefits. To recoup the costs associated with the fair adjustment, consumers, starting in May 2022 would be invoiced the "Clean Energy Adjustment" on their electricity

bills through existing IESO and LDC processes. The OEB would set the rates at which the clean energy adjustment could be collected.

OPG is planning to create a SPV or Trust to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the SPV/Trust. The variability will likely largely result from the financing of the SPV/Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

OPG Trust/SPV will ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province (See Table 1 on page 4) and external financing through a securitization of the investment asset. The structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. The proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

The legislation commits the government to backstop the financing if the government were to ever hinder the collection of the clean energy adjustment including revoking or changing the legislation or regulations. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to occur. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time, but could be as high as $1-1.5B annually [TBC]. It should be noted that the external borrowing by the OPG Trust will be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future.

Commented [HT12]: Based on commentary from implementation meetings. Don't believe this includes estimates of private lender borrowing costs. Please advise

The proposed structure has been extensively reviewed by KPMG (Energy advisor and IESO auditor), and the firm has provided an accounting opinion confirming the validity of the structure under PSAB [TBC]. This opinion can be made public [TBC] to support the governments rational for the plan. In addition, MAG and Blakes are confident that the structure is constitutionally sound, but that this will depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism. Based on the current analysis there is a moderately high risk that the GA financing will have a fiscal impact on the Province before 2022.

Commented [HT13]: Energy to confirm

For clarity: the following structural requirements have been met: [TBC]

Commented [HT14]: TBC based on receipt of professional opinions etc.

- IESO requirements :
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB;
  - IESO can derecognize regulatory asset upon sale to OPG;

  - "Market books" are reflected on corporate books; and,
  - OEB to act as regulator.
- OPG requirements:
  - OPG Trust/SPV purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust/SPV; and
  - OPG retains GBE status.

However, despite the fact that the structure has satisfied the legal, fiscal, and accounting requirements outlined in the policy submission, there remain some fundamental risks that the province would need to accept:

- The structure is unique in Canada and possibly the world, which increases the risk or unknown factors impacting its performance. The use of securities mechanisms to address debt is more common in the Unites States, but officials are currently unaware of any example that would compare to the size, complexity, or fluidity of what is proposed;
- Complexity of the structure and length of deferral/recovery increases risk and decrease transparency;
- Government would have no ability to control electricity prices resulting from these changes outside of recourse to the fiscal plan;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work and will have limited control over OPG's direct operations as the Financial Services Manager. While removal of the Financial Services Manager is provided for in the bill, in practice this may prove problematic once the system is operational; and
- Private lenders and rating agencies may disagree with the assessment of the size of the Fair Allocation Amount which would increase the risk of the asset and therefore its saleability. Could decrease amount of rate reduction achievable under this mechanism.

2. Enhancing electricity supports for vulnerable Ontarians and shifting costs from rate payer funded to government funded:

<u>Moving the Ontario Electricity Support Program (OESP) to the tax base:</u>

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The program was launched in January 2016 and has had roughly 30% enrolment. Consistent with Cabinet direction, the program was recently expanded to increase the existing benefit scales by 50% and provide additional credits to more households.

Under the expanded program the basic OESP benefit scale increased from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers.

The proposed bill amends the *Ontario Energy Board Act, 1998* to allow for the program to transition from the rate base to the tax base, and become administered by a Ministry or other entity as may be prescribed. The cost to the fiscal plan would be $186M in 2017/18. The bill provides further amendments designed to allow information sharing between the Ontario Disability Support Program (ODSP) and the entity responsible for OESP. The intention is that this information sharing will allow for the automat enrolment of individuals that are already enrolled under the ODSP, but it is currently unknown to what extent this will significantly impact the enrolment under the program.

Commented [HT15]: ENERGY: do you have any numbers on this point? Were other programs considered other than ODSP? Can we put something in about continuing efforts to improve the enrolment?

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a distribution rate protection program and the ability to cap the distribution charges of prescribed distributors. The amendments also establish that this program will be funded by the tax base.

The intention is to draft regulations permitted under this section of the bill to Harmonize the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to for that LDC to receive RRRP. These enhancements are expected to benefit approximately 800,000 customers in Ontario.

Targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $344M in 2017/18, $243M of which is a transfer of existing programs to the tax base. If the legislation and required regulations are passed, the program would become active as of July 1, 2017. It is possible that for technical reasons not all LDCs will be able to

Commented [HT16]: Need new estimate of transferred program cost starting from July 1.

implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

On-reserve First Nations Delivery Credit

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a tax base funded delivery credit program for on-reserve customers with the details as prescribed in the regulations. The intention is to enact regulations that would eliminate the delivery charge for all on-reserve First Nation household customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.

Eligible recipients would be automatically enrolled in the program (~21,500 customers) and receive an average monthly benefit of $85. The program will cost approximately $20M annually and, provided the legislation and regulations are passed, would become effective July 1, 2017. It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Expected Impacts of the Proposal on Electricity bills:

The impact of proposed legislation to an eligible customer's bill in July 2017 is a 25% decrease (combined with the 8% from ORECA effective Jan. 1, 2017), followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017. Between May 2018 and April 2022 electricity rates will be set by regulation with the intention that rate increases would be kept in line with CPI. Customers that are eligible for the RRRP enhancements and the OESP will see further reductions in their electricity rates beyond the 25%

Commented [HT17]: ENERGY: Can you provide analysis on the impact for customers that will receive the RRRP etc?

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

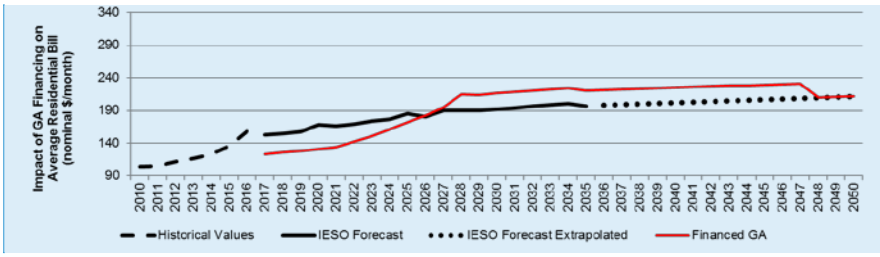
Commented [HT18]: Energy to provide updated chart

Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.*

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on the GA deferral portion of the plan, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future outside of recourse to the fiscal plan.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

Commented [HT19]: ENERGY to confirm if this needs to be updated.

The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future. To mitigate against the risk that increased self-generation poses, the bill provides that the Clean Energy Adjustment may not be "set-off". In other words, it would exist as a separate and distinct component of the bill that could not be reduced by methods such as net-metering.

Not all generating assets will continue operations at the end of their contract. If the Fair Allocation Amount is not properly designed, future rate payers will be paying the cost for assets that are no longer in use, which would be unconstitutional (See page 16- Legal Risk). High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. The structure of the GA deferral was designed to result in an (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on

funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result. The structure is also contingent on the size of the GA deferral that is seen as possible, which, as previously mentioned, increases the likelihood of pressures on the fiscal plan in the near future. (See page 17- Fiscal Pressure)

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

The Ontario Auditor General (OAG) has been briefed on the proposal and has had access to the March 1, 2017 policy submission for the Fair Hydro Plan. While the auditors of OPG and IESO have provided their assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief [TBC] can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

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Legal Risk – constitutionality of financing the GA

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

Former Supreme Court Justice Binnie has provided legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge

(and would be characterized as a tax).Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities. By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The bill has been drafted to mitigate the constitutional risk of the proposal and clearly articulates the desire to balance the costs and benefits of assets across generations. The bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. In addition, external consultant Navigant has provided an interim report on the costs and benefits of the long lived assets which supports the previous conclusions regarding the size of the GA deferral that would be supportable. This is further supported by the conclusions of OPG's independent analysis of the question.

Commented [HT21]: TBC

Commented [HT22]: ENERGY please confirm. Need to clearly articulate any differences that may exist between these analyses

MAG and Blakes are confident that the structure is constitutionally sound, but, as identified above, that this will highly depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism.

In addition, the structure of the GA refinancing means that the infrastructure included as part of the clean energy adjustment (i.e. amortized over 30 instead of 20 years) will need to be in service over the entire 30 year amortization period or provide benefits to the system in some way over the whole period. In practice this may mean that the government will have limited ability to alter the generation mixture included under the clean energy adjustment, including natural gas generation facilities, which may at some point be seen as inconsistent with the province's commitments to reduce greenhouse gasses. This risk has been mitigated in the bill, by allowing for prescribed natural gas generation contracts to be excluded from the clean energy benefit calculation.

Commented [HT23]: Needs ground truthing

Fiscal Pressure

Commented [HT24]: TBS please review closely

This proposal aligns with the 2017 Budget fiscal plan, but involves significant ongoing risks. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.
- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government has commissioned external opinions on the legal, fiscal, and accounting requirements. Energy's advisor and IESO auditor, KPMG, has provided an accounting opinion that the principles of the structure are sound, and this opinion can be released publicly when desired. This opinion may not change the likelihood of a contrary opinion by the OAG, but does provide a tool for government to point to in justifying its decisions.

Commented [HT25]: TBC

There is also a risk that credit rating agencies and the market may take an alternate view as to the size of the GA deferral that is possible before becoming unconstitutional. If the Fair Adjustment exceeds this analysis, it may increase the perceived risk of the investment asset and therefore its saleability, which would result in reduced market uptake and reduce the amount of near term rate reduction that would be achievable under the plan. This is why the increases in electricity rates between May 2018 and April 2022 are to be set by regulation as opposed to legislating that they increase by CPI. It may not be possible to legally hold the rate reductions to increase by CPI, and if the government wanted to hold to this commitment, the difference would need to come out of the fiscal plan, which has not been forecasted. Each percentage point of reduction that the structure cannot provide would result in an approximate $150M [TBC] cost to the tax base. This has not been provided for in the bill, but it is likely that the government will receive questioning along these lines and why the previously committed CPI increases are not explicitly stated in the bill.

Commented [HT26]: Needs ground truthing

There may be also some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG was provided copies of the Cabinet Submission seeking policy approval for Ontario's Fair Hydro Plan and has been briefed by officials from the Ministry of Energy. The OAG will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

Commented [HT27]: Energy to update.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Commented [HT28]: Energy to update from discussion with FAO

OPG Mechanism

- Accountability
  - Bill attempts to balance the independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
  - Accountability to the government or the public, amount of government control of the entity, including future rate increases.

Commented [HT29]: Needs to be recast given limitation on control after initiated

- New structure
  - Structure is complex, involving:
    - IESO as originator of the regulated asset and responsible for flow of funds;
    - OEB as regulator of the new mechanism;
    - OPG responsible for financing and managing the mechanism; and
    - The Province providing ongoing equity capital infusions to OPG and backstop.
  - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).
  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs. OEB would review OPG's cost as the Financial Services Manager
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

Program Design and Implementation

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake)
- The OESP matrix no longer follows the Low Income Measure (LIM) which creates inconsistencies between how programs are applied and may put pressure other provincial programs to increase funding amounts.

Benefits for all Consumer Classes

The Fair Hydro Plan includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) and other targeted relief for vulnerable Ontarians, but likely to question the longer term implications. Some individuals and organizations will perceive the GA smoothing as unduly burdening future generations. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to “keep electricity rate affordable”. Will likely respond positively to the recent changes to expand ICI eligibility to some manufacturing and greenhouse Class B customers, but may be more neutral the remainder of the initiatives.

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Commented [HT30]: Confirm work still ongoing on this piece

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Métis, non-status, First Nations without reserve land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – May react negatively towards any price relief that is not directly tied to energy conservation. May criticize the inclusion of natural gas electricity generation as part of the "Clean Energy Adjustment."

Solar PV sector – May react negatively to price relief as it can be seen to undercut the affordability of distributed renewable generation assets such as solar PV, and undermines the economic arguments behind net metering.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

If passed, the legislation will enable the price mitigation measures to begin to take effect on July 1, 2017. The 2017 LTEP will be released to the public in the summer 2017 and would reinforce/integrate with Ontario's Fair Hydro Plan. Regulations are required under the major components of the legislation in order to fully implement the initiative and clarify program details.

Commented [HT31]: TBC

1. **Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs**

Consumers will see an immediate reduction of their electricity bills as of July 1, 2017. The establishment of the regulatory asset and purchase by OPG is expected to take three to six months to implement following the introduction of enabling legislation.

Commented [HT32]: This needs more elaboration and confirmation. Last discussion I was part of on this point hadn't landed exactly how long it is expected that the IESO retains the Reg Asset for before sale to OPG.

2. **Enhancing Social and Conservation Programs**

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate). The amendments made in this bill allow for a transition period where the program continues to draw on the existing IESO variance account until the account can no longer maintain the program. IESO is required to notify the Ministry of Energy when it expects the variance account to be depleted (likely sometime in the fall). At this time

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the changes to this program (delivery mechanism, funding source, application system, eligibility).

Commented [HT33]: Requires update

RRRP Enhancement

Regulations would be required to establish the details of the program. OEB estimates that the implementation would take at least six months after finalizing regulations. For this reason it is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st which will put an immediate pressure on the OEB and LDCs as implementation is required no later than October 1, 2017. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

On-Reserve First Nations Delivery Credit

The OEB would need to work with the LDCs to identify the eligible on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Once available, the rebate would appear on customer's electricity bills as a reduction in, or credit for, their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in summer-fall 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – On January 1, 2016 the government ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, and put in place the low-income targeted OESP, effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Industrial Conservation Initiative – Ministry of Energy program implemented in January 2011 to help large industrial consumers reduce their electricity costs by shirfitn electricity consumption away from peak periods. As part of the Fair Hydro Plan, ICI eligibility was recently expanded to allow for the participation of the manufacturing and greenhouse sectors with an average month peak demand greater than 500 kilowatts (kW) and less than or equal to 1 megawatt (MW). ICI benefits all electricity consumers by decreasing the need for costly peaking generation over the long term.

Affordability Fund – approved as part of Ontario's Fair Hydro Plan, and under development, the Affordability Fund is intended to expand access to conservation funding to targeted consumers that do not currently qualify as low-income for the purposes of the Home Assistance Program (HAP).

Commented [HT34]: insert

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs. The Green Ontario Fund (GreenON)- is tasked to develop programs and services designed to:

- Reduce greenhouse gas emissions from housing from buildings and the production of goods; and

- Increase uptake and overcome market barriers of low-carbon technologies and processes.

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

Commented [HT35]: To get updated language on the RTA amendments

Proposed Cabinet Minute

Approval of draft bill for introduction

Cabinet approved version XX-XX of this draft legislation for introduction, subject to the following:

1. The Office of Legislative Counsel is authorized to prepare a French version and to make minor adjustments to the English version, for the purpose of ensuring consistency between the two versions and making other improvements or correcting mistakes discovered in the translation process.

From:	John Kim
To:	Ronald Kwan
Cc:	Deena Padamadan
Subject:	FW: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Date:	Monday, May 01, 2017 5:16:54 PM
Attachments:	DLEG-847_ID49011_LRC_CBN- Rate Mitigation- Draft- No materials- V1.docx
Importance:	High

It looks like no CabSub as it indicates prepared with no materials.

From: Strang, James (TBS) [mailto:James.Strang@ontario.ca]
Sent: Monday, May 01, 2017 8:51 AM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>; Paul Kaufman (MOHLTC) <Paul.Kaufman@ontario.ca>; Nick Smook (MOF) <Nick.Smook@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Chris Skubel (MGS) <Chris.Skubel@ontario.ca>; Nina Arbabzadeh (EDU) <Nina.Arbabzadeh@ontario.ca>; Patrick Laughton (MOF) <Patrick.Laughton@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>
Subject: FW: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Importance: High

Draft note from Cabinet Office. They're looking for feedback by EOD today (May 1).

I'm happy to coordinate any responses.

James

From: Hindmarch-Watson, Tim (CAB)
Sent: April 28, 2017 3:46 PM
To: Fung, Felix (TBS); Skubel, Chris (TBS)
Cc: Strang, James (TBS); Moore, Karen (CAB)
Subject: DRAFT CBN For Review- Rate Mitigation- Due EOD May 1st
Importance: High

Hi Felix and Chris:

As mentioned earlier in the week, please find attached the draft CBN re the rate mitigation legislation for the TBS' review (password same as previous materials). This has been prepared with no materials and should be reviewed closely. I have left comments in the margin where I am looking for specific review or confirmation of particular details. I am interested in ensuring alignment in how we are characterizing the proposal and its risks.

The note is a bit on the longer side at the moment, so suggestions to economize without losing key pieces would also be helpful.

The note is undergoing concurrent review with Energy and my management now. My ADM will likely pass this along to Cindy and Karen for concurrent review given the time crunch, but please feel to pass along as well.

Please try to have any comments to me by EOD on Monday so I can get it to my DM and the Secretary

on Tuesday.

Have a great weekend,

Tim Hindmarch-Watson
Policy Advisor
Justice, Resource and Environmental Policy
Policy and Delivery Division
Cabinet Office
416-325-4618

DRAFT-WITHOUT MATERIALS

CABINET BRIEFING NOTE AND LRC RECOMMENDATION

Energy

DRAFT Financing Global Adjustment

Commented [HT1]: Name as in EVista- Will update as item is updated.

Cabinet (info)	TB/MBC	Cabinet	Announcement	TB/MBC	Cabinet	Introduction
Feb 15, 2017	March 1, 2017	March 1, 2017	March 2, 2017	May 9, 2017	May 10, 2017	May 11, 2017

Summary of Proposal

The proposed legislation contains a variance from Cabinet direction, which is detailed in the ministry's variance memo and within this note.

Context for Decision:

This proposal follows Cabinet direction to the Ministry of Energy to take the necessary steps to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers.

The proposed legislation enables approaches to fairly allocate the costs of the Global Adjustment (GA) amongst current and future electricity rate payers, and help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding. To fully implement the initiative, the Ministry of Energy will be seeking future approvals for regulations identified in the proposed bill, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The proposed legislation:

1. Establishes a framework to finance a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the costs of the GA more fairly across ratepayers between July 1, 2017 and April 30, 2047:
    - July 1, 2017 to April 20, 2018, reduces after-tax electricity costs for specified consumers by 25%.
    - May, 1 2018 to April 31, 2022, electricity rates will be set by Order in Council (OIC) with the intention to keep increases in line with the Consumer Price Index (CPI) (See page 17- Fiscal Pressure)
    - May 1, 2022 to April 30, 2047, electricity rates will increase at a pace that ensures recovery of the accumulated debt, interest costs and

administrative costs, around 10% of total electricity costs. (See page 14- Future Impacts to Electricity Rates)

Commented [HT2]: TBC by Energy

- Through the bill and subsequent amendments to the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998, e*xpanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), to provide for appropriate oversight, putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs. (See page 19- OPG Mechanism)

2. Expands electricity support programs for the most vulnerable consumers and moves program costs from the rate base to the tax base. The bill amends the *Ontario Energy Board Act, 1998* to:
   - Move the recently expanded Ontario Electricity Support Program (OESP) to the tax base, transition the program to be administered by the Crown, and to enable information exchange between the Ontario Disability Support Program to potentially allow for automatic enrolment procedures to be established;
   - Amends the Ontario Energy Board Act, 1998 to enable a broadening of the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution costs for customers with the highest distribution rates and moving the program to the tax base; and,
   - Amends the *Ontario Energy Board Act, 1998* to require the establishment of a government funded program to provide a delivery credit to prescribed on reserve customers.

Terms you need to know

- **Global Adjustment (GA) –** The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation and demand management programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.

  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers.'
- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.
- **Special Purpose Vehicle (SPV) –**
- **Security Interest –**

Commented [HT3]: TBS: Do you have standard language that you would recommend using?

Why does Ontario need these changes? Why now?

Addressing rising electricity prices is among the highest priorities for Ontarians. There has been increased media attention and public pressure for the government to provide ratepayer relief. On March 2, 2017, the Ontario government announced its electricity rate mitigation package, Ontario's Fair Hydro Plan, which included the initiatives contained in the proposed legislation. The government has committed to implement further rate relief measures by the summer 2017.

What is the expected cost to government?

The total cost of the proposal is $4.1B [TBC] in 2017/18, $1,599M funded through the fiscal plan and $2.5B to be funded through the electricity rate base.

Commented [HT4]: TBC as this includes the equity injection.

TABLE 1: Cost Impact ($M)	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	499	753	829	892
GA Financing	2,534	2,668	2,942	3,420
OPG Loan / Share Purchase (i.e. equity injection)	1,100	?	?	?
Cumulative Total	4,133	3,421	3,771	4,312

Commented [HT5]: TBC

The proposed bill identifies OPG as the Financial Services Manager and would therefore take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province ($1.1 B in 2017-18; See Table 1) and external private sector financing. The structure has been designed to increase gross debt of the Province (to finance the equity injection in OPG), increase interest on debt related to that external debt, increase net investment in OPG, and increase earnings of OPG. The equity investment has been structured so that the underlying regulatory asset will offset the additional debt to not impact the province's net debt.

The estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $499M in 2017/18, growing to $753M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as program uptake and future energy consumption of various consumer groups, and are therefore subject to change.

TABLE 2: Fiscal Impact ($M)	17-18	18-19	19-20	20-21
RRRP Enhancements*	344	472	484	497
OESP Enhancements	140	261	325	375
First Nations On-Reserve Delivery Credit	15	20	20	20
Total	499**	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.
****Note**: Value adjusted from $665 million to reflect July 2017 implementation.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's options to address electricity rate concerns in the future. (See page 17- Fiscal Pressure)

What are the key steps to deliver this proposal?

- May 11, 2017 - introduce legislation.
- Spring- Summer 2017- Energy to work with IESO, OEB, OPG, and LDCs on the implementation of the Fair Hydro Plan.
- Information postings of proposed regulations.
- June ?? 2017- Energy to bring regulations to TB/MBC.
- June ??, 2017- Energy to bring regulations to LRC/Cabinet.
- July 1st, 2017- the remaining Fair Hydro Plan reductions and programs would take effect. Programs that are not established on this day for technical implementation issues will have benefits that are retroactively applied to customers once program is operational in individual LDCs.

Commented [HT6]: Energy: Pelase refine

How will the changes be communicated?

Commented [HT7]: CO and Energy Comms to review.

On March 2, 2017, the Premier made a high profile announcement of additional relief to reduce electricity costs for Ontarians. Coinciding with this event, there was news releases with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Building on the previous announcements, on May 11, 2017, the Premier is to make a high profile announcement of the plans to introduce the necessary legislation to implement Ontario's Fair Hydro Plan to provide additional relief to reduce electricity costs for Ontarians.

Given the risk identified that the GA financing may have a fiscal impact, communication will need to be clear that the proposed draft legislation meets the legal, accounting and financial requirements to not have a fiscal impact.

Notes and Recommendation from LRC

LRC item direct to Cabinet.

Cabinet Office Analysis

The proposed legislation allows for the implementation of the main elements of Ontario's Fair Hydro Plan announced March 2 to provide further rate relief to Ontario electricity ratepayers. The Global Adjustment (GA) smoothing proposal will provide 25% in rate relief in aggregate (including the 8% announced in 2016) for eligible consumers of the Regulated Price Plan (RPP) between July 1, 2017 and April 31, 2018 ("The Fair Adjustment"). Electricity rates would then change by amounts prescribed in the regulations under the bill, with the intention to keep rate increases in line with Consumer Price Index (CPI) between May 1, 2018 and April 30, 2022.

Commented [HT8]: Need to add estimate of benefits from the other programs, particularly RRRP as I think the impact, along with GA, is going to be closer to 40 or 50% for some customers

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the summer of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement, and conservation. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and, Ontario's Fair Hydro Plan combined with new policy or program announcements in the LTEP, will provide the comprehensive future planning perspective for Ontario's energy sector.

Commented [HT9]: Confirm with PO and Energy

1. Refinancing the Global Adjustment

The proposed legislation establishes the framework to defer some of the current GA costs to future ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The methodology is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to continue to be able to utilize and benefit from these assets, and that they will also reduce the need to finance the development of new generation assets in the future.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations leaves the process more susceptible to constitutional challenge and could jeopardize the nature of the clean energy adjustment being a regulatory charge, and risk it being deemed an unlawful tax. The bill has been drafted to mitigate this risk and clearly articulates the desire to fairly attribute intergenerational costs and benefits. In addition the

bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. (See page 16- Legal Risk)

Key elements of this component of the bill include:

Fair Adjustment

- July 1, 2017- April 30, 2018- the bill outlines an immediate 25% reduction in rates for eligible consumers in recognition of the investment in clean energy initiatives since 2005.
- May 1, 2018- April 30, 2022- the bill allows for rates to be set by regulation, with the intention that rates will increase in line with CPI over this time, consistent with government commitments. (See page 17- Fiscal Pressure)
- Ontario Energy Board (OEB) would calculate appropriate adjustments for "specified consumers".

Clean Energy Adjustment

- Determined by Ontario Power Generation (OPG) as the Financial Services Manager, the clean energy adjustment is the amount that will be recovered from consumers in the future to pay principle, interest, transaction costs and administrative costs associated with the fair adjustment (regulatory/investment asset).
- Will be subject to true-up process that will reconcile actual amounts collected with expected amounts.
- May 1, 2022- April 30, 2047- to be invoiced to consumers and collected as part of the electricity bills through existing Independent Electricity System Operator (IESO) and Local Distribution Companies (LDC) processes.
- In accordance with the regulations, the OEB to set the rate at which "specified consumers" are invoiced to recover the clean energy adjustment.

Fair Allocation Amount

- The fair allocation amount is calculated by the Financial Services Manager consistent with the principles of the bill.
- Established for the purposes of allocating the costs of the clean energy initiative to provide inter-generational fairness to rate payers; and aligning funding obligations that may be incurred during each reference period (typically every 6 months).
- Provided to the Minister of Energy who will ensure that the information is made public in an appropriate way.
- Principles established in the bill require proper match over time between the costs of providing facilities for clean electricity generation and conservation and the consumers who benefit from these investments in the system. (Page 16- Legal Risk; See page 17- Fiscal Pressure)

Financing Plan

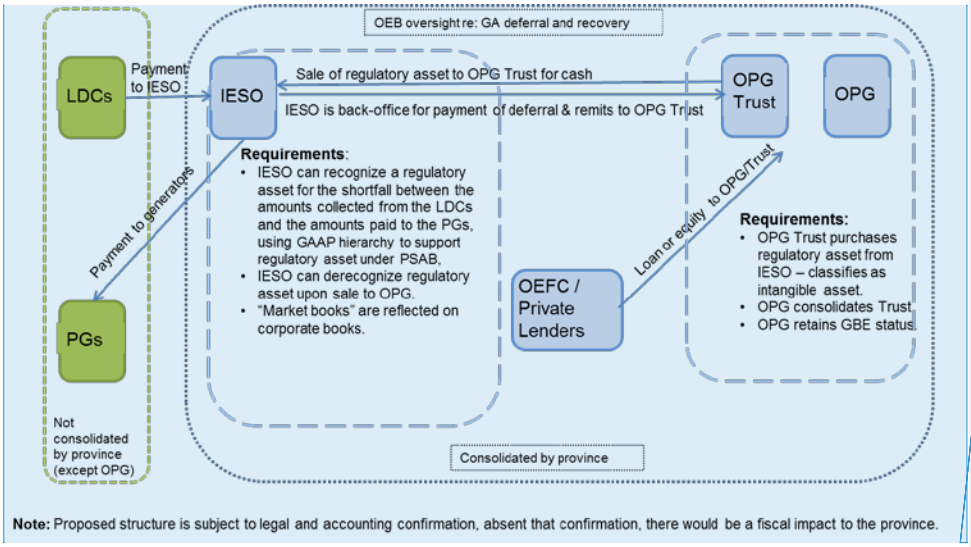
- Prepared by the Financial Services Manager to determine if potential funding obligations should be incurred to acquire an investment interest in accordance with the bill.
- Provided to the Minister Energy who may remove the Financial Services Manager if the Financing Plan is not consistent with the principles of the bill and the Financial Services Manager has been given the opportunity to address the Minister's concerns.
- May be amended as determined by the Financial Services Manager.
- In practical terms, the Financing Plan is intended to show how debt (with varying degrees of incurrence dates, maturities, interest rates) will be used over time.
- The OEB would review the administrative costs of the Financial Services Manager.

Regulatory Asset and Investment Asset

- Regulatory Asset created as IESO incurs a funding shortfall equal to the difference between the rates it receives after the implementation of the Fair Adjustment and the amounts owed under generation and conservation contracts (i.e. the comparison rate minus rates after fair adjustment).
- Subject to OEB approval, IESO would record the funding shortfall as a regulatory asset. IESO would also have collection rights to recover the funding shortfall, which may be sold. Collection rights are deferred until May 1, 2022.
- The Financing Plan contemplates the Financial Services Manager establishing financing entities (OPG Trust/Special Purpose Vehicle (SPV)) to buy the regulatory asset and the associated rights in exchange for a payment to the IESO. IESO would use the payment to offset the funding shortfall.
- This purchase and sale turns the regulatory asset into an investment asset. The transfer includes the rights to collect amounts related to the clean energy adjustment in a manner consistent with the bill.
- The investment interest owner may further sell all or a portion of its rights and interests including by dividend or undivided interest, consistent with the Financing Plan. An investment interest owner may also grant a security interest over all or a portion of its right, title and interests to secure a funding obligation.
- After 5 years (May 1, 2022) the IESO has the rights to collect its funding shortfall from ratepayers in the event that a portion of the regulatory asset is not bought and sold. (See page 17- Fiscal Pressure)
- The rights associated with the investment asset require IESO and LDCs to collect money from rate payers as agent of the investment asset owner.

Crown Undertaking (Guarantee or Backstop)

- The Crown would undertake not to do anything to adversely affect an investment asset or funding obligation, including hinder, impair, prejudice the charging, collection or remittance of the clean energy adjustment.
- The Minister of Energy, with LGIC approval, may enter into agreements for compensation with any person in respect of the bill.
- The Minister of Finance, with LGIC approval, may agree to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.



Commented [HT10]: Energy: Please provide updated chart with terminology from the legislation embedded.

The bill establishes a structure in which the IESO records the GA cost recovery deferral is recorded as a regulatory asset (regulated by the OEB), supported at its foundation by the fact that the refinancing of the GA is not a reduction in the GA, but rather a deferral to be collected at a future time ("The Fair Adjustment"). Eligible consumers would receive a 25% reduction in electricity rates from July 1, 2017 to April 30, 2018. The IESO may then sell the regulatory asset, at which time it becomes an investment asset. The investment asset owner (OPG Trust/SPV or trust "financing entities") may then further sell or securitize all or part of the regulatory asset to other parties in exchange for a funding obligation.

Commented [HT11]: Section to be compared against the legislation's compendium when available.

Under the proposed framework, OPG, acting in its role as the "Financial Services Manager", and following the principles in the bill, would regularly calculate the "Fair Allocation Amount" to ensure a proper match of the allocation of the intergenerational costs and benefits. To recoup the costs associated with the fair adjustment, consumers, starting in May 2022 would be invoiced the "Clean Energy Adjustment" on their electricity

bills through existing IESO and LDC processes. The OEB would set the rates at which the clean energy adjustment could be collected.

OPG is planning to create a SPV or Trust to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the SPV/Trust. The variability will likely largely result from the financing of the SPV/Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

OPG Trust/SPV will ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province (See Table 1 on page 4) and external financing through a securitization of the investment asset. The structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. The proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

The legislation commits the government to backstop the financing if the government were to ever hinder the collection of the clean energy adjustment including revoking or changing the legislation or regulations. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to occur. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time, but could be as high as $1-1.5B annually [TBC]. It should be noted that the external borrowing by the OPG Trust will be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future.

Commented [HT12]: Based on commentary from implementation meetings. Don't believe this includes estimates of private lender borrowing costs. Please advise

The proposed structure has been extensively reviewed by KPMG (Energy advisor and IESO auditor), and the firm has provided an accounting opinion confirming the validity of the structure under PSAB [TBC]. This opinion can be made public [TBC] to support the governments rational for the plan. In addition, MAG and Blakes are confident that the structure is constitutionally sound, but that this will depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism. Based on the current analysis there is a moderately high risk that the GA financing will have a fiscal impact on the Province before 2022.

Commented [HT13]: Energy to confirm

For clarity: the following structural requirements have been met: [TBC]

Commented [HT14]: TBC based on receipt of professional opinions etc.

- IESO requirements :
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB;
  - IESO can derecognize regulatory asset upon sale to OPG;

  - "Market books" are reflected on corporate books; and,
  - OEB to act as regulator.
- OPG requirements:
  - OPG Trust/SPV purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust/SPV; and
  - OPG retains GBE status.

However, despite the fact that the structure has satisfied the legal, fiscal, and accounting requirements outlined in the policy submission, there remain some fundamental risks that the province would need to accept:

- The structure is unique in Canada and possibly the world, which increases the risk or unknown factors impacting its performance. The use of securities mechanisms to address debt is more common in the Unites States, but officials are currently unaware of any example that would compare to the size, complexity, or fluidity of what is proposed;
- Complexity of the structure and length of deferral/recovery increases risk and decrease transparency;
- Government would have no ability to control electricity prices resulting from these changes outside of recourse to the fiscal plan;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work and will have limited control over OPG's direct operations as the Financial Services Manager. While removal of the Financial Services Manager is provided for in the bill, in practice this may prove problematic once the system is operational; and
- Private lenders and rating agencies may disagree with the assessment of the size of the Fair Allocation Amount which would increase the risk of the asset and therefore its saleability. Could decrease amount of rate reduction achievable under this mechanism.

2. Enhancing electricity supports for vulnerable Ontarians and shifting costs from rate payer funded to government funded:

<u>Moving the Ontario Electricity Support Program (OESP) to the tax base:</u>

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The program was launched in January 2016 and has had roughly 30% enrolment. Consistent with Cabinet direction, the program was recently expanded to increase the existing benefit scales by 50% and provide additional credits to more households.

Under the expanded program the basic OESP benefit scale increased from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers.

The proposed bill amends the *Ontario Energy Board Act, 1998* to allow for the program to transition from the rate base to the tax base, and become administered by a Ministry or other entity as may be prescribed. The cost to the fiscal plan would be $186M in 2017/18. The bill provides further amendments designed to allow information sharing between the Ontario Disability Support Program (ODSP) and the entity responsible for OESP. The intention is that this information sharing will allow for the automat enrolment of individuals that are already enrolled under the ODSP, but it is currently unknown to what extent this will significantly impact the enrolment under the program.

Commented [HT15]: ENERGY: do you have any numbers on this point? Were other programs considered other than ODSP? Can we put something in about continuing efforts to improve the enrolment?

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a distribution rate protection program and the ability to cap the distribution charges of prescribed distributors. The amendments also establish that this program will be funded by the tax base.

The intention is to draft regulations permitted under this section of the bill to Harmonize the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to for that LDC to receive RRRP. These enhancements are expected to benefit approximately 800,000 customers in Ontario.

Targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $344M in 2017/18, $243M of which is a transfer of existing programs to the tax base. If the legislation and required regulations are passed, the program would become active as of July 1, 2017. It is possible that for technical reasons not all LDCs will be able to

Commented [HT16]: Need new estimate of transferred program cost starting from July 1.

implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

On-reserve First Nations Delivery Credit

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments.

The proposed bill amends the *Ontario Energy Board Act, 1998* to require the creation of a tax base funded delivery credit program for on-reserve customers with the details as prescribed in the regulations. The intention is to enact regulations that would eliminate the delivery charge for all on-reserve First Nation household customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.

Eligible recipients would be automatically enrolled in the program (~21,500 customers) and receive an average monthly benefit of $85. The program will cost approximately $20M annually and, provided the legislation and regulations are passed, would become effective July 1, 2017. It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Expected Impacts of the Proposal on Electricity bills:

The impact of proposed legislation to an eligible customer's bill in July 2017 is a 25% decrease (combined with the 8% from ORECA effective Jan. 1, 2017), followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017. Between May 2018 and April 2022 electricity rates will be set by regulation with the intention that rate increases would be kept in line with CPI. Customers that are eligible for the RRRP enhancements and the OESP will see further reductions in their electricity rates beyond the 25%

Commented [HT17]: ENERGY: Can you provide analysis on the impact for customers that will receive the RRRP etc?

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

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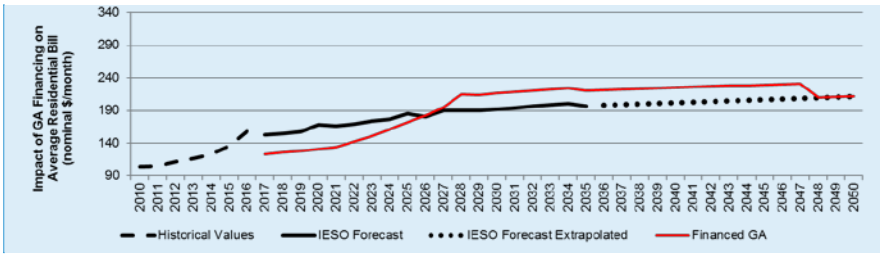
Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.*

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on the GA deferral portion of the plan, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future outside of recourse to the fiscal plan.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future. To mitigate against the risk that increased self-generation poses, the bill provides that the Clean Energy Adjustment may not be "set-off". In other words, it would exist as a separate and distinct component of the bill that could not be reduced by methods such as net-metering.

Not all generating assets will continue operations at the end of their contract. If the Fair Allocation Amount is not properly designed, future rate payers will be paying the cost for assets that are no longer in use, which would be unconstitutional (See page 16- Legal Risk). High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. The structure of the GA deferral was designed to result in an (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on

funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result. The structure is also contingent on the size of the GA deferral that is seen as possible, which, as previously mentioned, increases the likelihood of pressures on the fiscal plan in the near future. (See page 17- Fiscal Pressure)

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

The Ontario Auditor General (OAG) has been briefed on the proposal and has had access to the March 1, 2017 policy submission for the Fair Hydro Plan. While the auditors of OPG and IESO have provided their assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief [TBC] can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

Commented [HT20]: To be updated when Navigant prelim report and OPG analysis complete

Legal Risk – constitutionality of financing the GA

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

Former Supreme Court Justice Binnie has provided legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge

(and would be characterized as a tax).Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities. By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The bill has been drafted to mitigate the constitutional risk of the proposal and clearly articulates the desire to balance the costs and benefits of assets across generations. The bill includes provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court. In addition, external consultant Navigant has provided an interim report on the costs and benefits of the long lived assets which supports the previous conclusions regarding the size of the GA deferral that would be supportable. This is further supported by the conclusions of OPG's independent analysis of the question.

Commented [HT21]: TBC

Commented [HT22]: ENERGY please confirm. Need to clearly articulate any differences that may exist between these analyses

MAG and Blakes are confident that the structure is constitutionally sound, but, as identified above, that this will highly depend on the size of the GA deferral attempted. MAG is confident that the initial fair adjustment is achievable and justifiable, but that this risk increases in the proceeding four years, and may impact the ability to fulfill the commitment to keep increase in line with CPI by this mechanism.

In addition, the structure of the GA refinancing means that the infrastructure included as part of the clean energy adjustment (i.e. amortized over 30 instead of 20 years) will need to be in service over the entire 30 year amortization period or provide benefits to the system in some way over the whole period. In practice this may mean that the government will have limited ability to alter the generation mixture included under the clean energy adjustment, including natural gas generation facilities, which may at some point be seen as inconsistent with the province's commitments to reduce greenhouse gasses. This risk has been mitigated in the bill, by allowing for prescribed natural gas generation contracts to be excluded from the clean energy benefit calculation.

Commented [HT23]: Needs ground truthing

Fiscal Pressure

Commented [HT24]: TBS please review closely

This proposal aligns with the 2017 Budget fiscal plan, but involves significant ongoing risks. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.
- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government has commissioned external opinions on the legal, fiscal, and accounting requirements. Energy's advisor and IESO auditor, KPMG, has provided an accounting opinion that the principles of the structure are sound, and this opinion can be released publicly when desired. This opinion may not change the likelihood of a contrary opinion by the OAG, but does provide a tool for government to point to in justifying its decisions.

Commented [HT25]: TBC

There is also a risk that credit rating agencies and the market may take an alternate view as to the size of the GA deferral that is possible before becoming unconstitutional. If the Fair Adjustment exceeds this analysis, it may increase the perceived risk of the investment asset and therefore its saleability, which would result in reduced market uptake and reduce the amount of near term rate reduction that would be achievable under the plan. This is why the increases in electricity rates between May 2018 and April 2022 are to be set by regulation as opposed to legislating that they increase by CPI. It may not be possible to legally hold the rate reductions to increase by CPI, and if the government wanted to hold to this commitment, the difference would need to come out of the fiscal plan, which has not been forecasted. Each percentage point of reduction that the structure cannot provide would result in an approximate $150M [TBC] cost to the tax base. This has not been provided for in the bill, but it is likely that the government will receive questioning along these lines and why the previously committed CPI increases are not explicitly stated in the bill.

Commented [HT26]: Needs ground truthing

There may be also some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG was provided copies of the Cabinet Submission seeking policy approval for Ontario's Fair Hydro Plan and has been briefed by officials from the Ministry of Energy. The OAG will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

Commented [HT27]: Energy to update.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Commented [HT28]: Energy to update from discussion with FAO

OPG Mechanism

- Accountability
  - Bill attempts to balance the independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
  - Accountability to the government or the public, amount of government control of the entity, including future rate increases.

Commented [HT29]: Needs to be recast given limitation on control after initiated

- New structure
  - Structure is complex, involving:
    - IESO as originator of the regulated asset and responsible for flow of funds;
    - OEB as regulator of the new mechanism;
    - OPG responsible for financing and managing the mechanism; and
    - The Province providing ongoing equity capital infusions to OPG and backstop.
  - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).
  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs. OEB would review OPG's cost as the Financial Services Manager
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

Program Design and Implementation

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake)
- The OESP matrix no longer follows the Low Income Measure (LIM) which creates inconsistencies between how programs are applied and may put pressure other provincial programs to increase funding amounts.

Benefits for all Consumer Classes

The Fair Hydro Plan includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) and other targeted relief for vulnerable Ontarians, but likely to question the longer term implications. Some individuals and organizations will perceive the GA smoothing as unduly burdening future generations. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to “keep electricity rate affordable”. Will likely respond positively to the recent changes to expand ICI eligibility to some manufacturing and greenhouse Class B customers, but may be more neutral the remainder of the initiatives.

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Commented [HT30]: Confirm work still ongoing on this piece

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Métis, non-status, First Nations without reserve land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – May react negatively towards any price relief that is not directly tied to energy conservation. May criticize the inclusion of natural gas electricity generation as part of the "Clean Energy Adjustment."

Solar PV sector – May react negatively to price relief as it can be seen to undercut the affordability of distributed renewable generation assets such as solar PV, and undermines the economic arguments behind net metering.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

If passed, the legislation will enable the price mitigation measures to begin to take effect on July 1, 2017. The 2017 LTEP will be released to the public in the summer 2017 and would reinforce/integrate with Ontario's Fair Hydro Plan. Regulations are required under the major components of the legislation in order to fully implement the initiative and clarify program details.

Commented [HT31]: TBC

1. **Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs**

Consumers will see an immediate reduction of their electricity bills as of July 1, 2017. The establishment of the regulatory asset and purchase by OPG is expected to take three to six months to implement following the introduction of enabling legislation.

Commented [HT32]: This needs more elaboration and confirmation. Last discussion I was part of on this point hadn't landed exactly how long it is expected that the IESO retains the Reg Asset for before sale to OPG.

2. **Enhancing Social and Conservation Programs**

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate). The amendments made in this bill allow for a transition period where the program continues to draw on the existing IESO variance account until the account can no longer maintain the program. IESO is required to notify the Ministry of Energy when it expects the variance account to be depleted (likely sometime in the fall). At this time

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the changes to this program (delivery mechanism, funding source, application system, eligibility).

Commented [HT33]: Requires update

RRRP Enhancement

Regulations would be required to establish the details of the program. OEB estimates that the implementation would take at least six months after finalizing regulations. For this reason it is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st which will put an immediate pressure on the OEB and LDCs as implementation is required no later than October 1, 2017. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

On-Reserve First Nations Delivery Credit

The OEB would need to work with the LDCs to identify the eligible on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

It is possible that for technical reasons not all LDCs will be able to implement the changes required under the program in time for the July 1 effective date. In these cases, the bill dictates that, once the changes have been made (required by October 1, 2017 at the latest), the LDC would provide a lump sum credit to customers that would otherwise have been eligible for benefits under the program starting July 1st.

Once available, the rebate would appear on customer's electricity bills as a reduction in, or credit for, their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in summer-fall 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – On January 1, 2016 the government ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, and put in place the low-income targeted OESP, effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Industrial Conservation Initiative – Ministry of Energy program implemented in January 2011 to help large industrial consumers reduce their electricity costs by shirfitn electricity consumption away from peak periods. As part of the Fair Hydro Plan, ICI eligibility was recently expanded to allow for the participation of the manufacturing and greenhouse sectors with an average month peak demand greater than 500 kilowatts (kW) and less than or equal to 1 megawatt (MW). ICI benefits all electricity consumers by decreasing the need for costly peaking generation over the long term.

Affordability Fund – approved as part of Ontario's Fair Hydro Plan, and under development, the Affordability Fund is intended to expand access to conservation funding to targeted consumers that do not currently qualify as low-income for the purposes of the Home Assistance Program (HAP).

Commented [HT34]: insert

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs. The Green Ontario Fund (GreenON)- is tasked to develop programs and services designed to:

- Reduce greenhouse gas emissions from housing from buildings and the production of goods; and

- Increase uptake and overcome market barriers of low-carbon technologies and processes.

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

Commented [HT35]: To get updated language on the RTA amendments

Proposed Cabinet Minute

Approval of draft bill for introduction

Cabinet approved version XX-XX of this draft legislation for introduction, subject to the following:

1. The Office of Legislative Counsel is authorized to prepare a French version and to make minor adjustments to the English version, for the purpose of ensuring consistency between the two versions and making other improvements or correcting mistakes discovered in the translation process.

From: Bruno Amara
To: Ronald Kwan
Cc: John Kim; Adam Prokop
Subject: FW: EXTERNAL – Interest Recovery
Date: Monday, March 20, 2017 4:18:42 PM
Attachments: image001.png

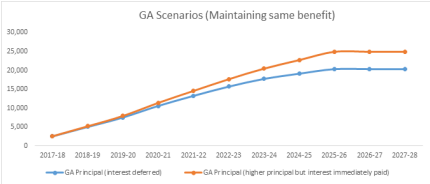
Hi Ron

See Adam's response below to your question. If interest is recovered from ratepayers then GA deferral will be need to be higher to provide same 25% benefit.

Bruno

From: Adam Prokop
Sent: Monday, March 20, 2017 3:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Here is a more exact calculation:



$ Millions

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
GA (interest deferred)	2,501	5,009	7,509	10,584	13,244	15,698	17,736	19,121	20,332	20,332	20,332
GA (higher principal but interest immediately paid)	2,540	5,178	7,924	11,384	14,554	17,654	20,464	22,734	24,924	24,924	24,924
Difference	39	169	415	800	1,310	1,956	2,728	3,613	4,592	4,592	4,592

Essentially, there will be more principal at the beginning but less interest costs over time (and faster payment of principal) under the method proposed by OPG. The higher principal amount is ~ $5B before repayments start to be made. If interest costs are deferred, the principal is lower but there are higher interest costs. The long-term costs are very similar, but OPG's method allows the Trust to collect cash and recognize income immediately.

Kind regards,

Adam Prokop

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Just as we expected, all interest and fees will be recovered every year immediately.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
I've confirmed that 100% of the interest and fees would be recovered through the process immediately.
Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Monday, March 20, 2017 11:06 AM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL – Interest Recovery

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

You can reach me from here if I'm not in my office.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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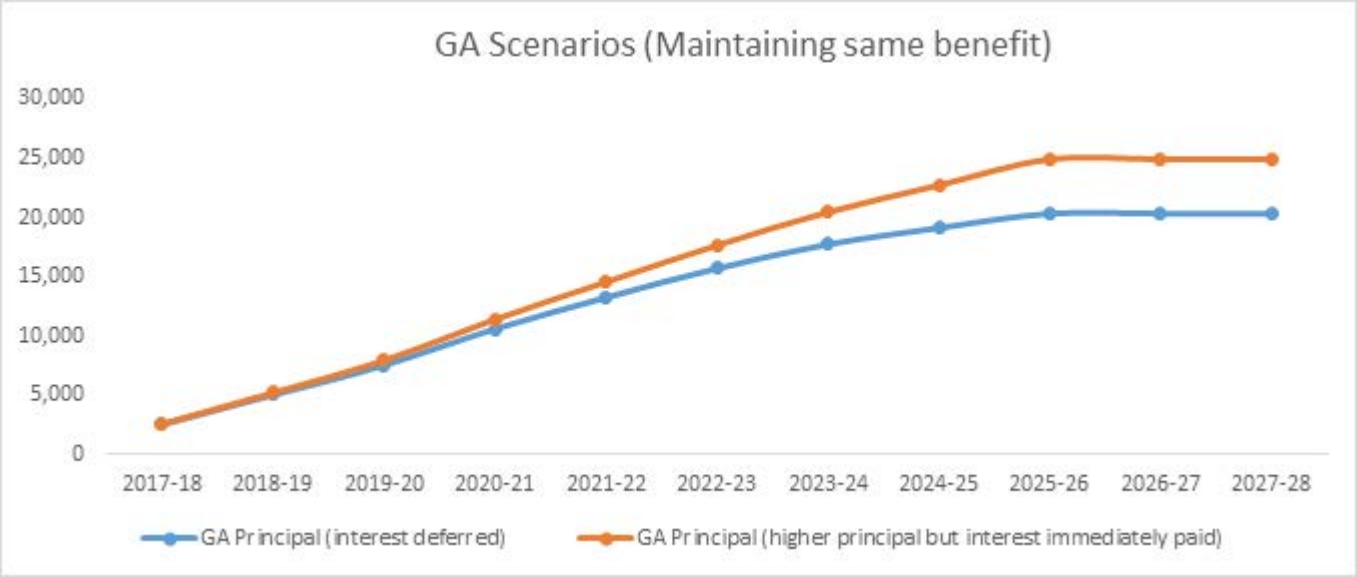
GA Scenarios (Maintaining same benefit)
30,000
25,000
20,000
15,000
10,000
5,000
0
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28
GA Principal (interest deferred)
GA Principal (higher principal but interest immediately paid)

From: Adam Prokop
To: Bruno Amara; John Kim
Cc: Shajee Kathirgamanathan; Salman Qadir; Gavin He
Subject: FW: EXTERNAL - OPG - 44% of GA Deferral from the Province.
Date: Friday, March 31, 2017 2:59:11 PM

FYI.

Will have more on Monday.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Friday, March 31, 2017 2:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - OPG - 44% of GA Deferral from the Province.

Hi Adam
After a very brief discussion with our Treasury folks it looks like they are thinking about a premium for the redemption right, and the initial thinking is that we would use 10%, ie $22. But I will confirm this Monday, as well as give you some feedback on the interest issue.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Friday, March 31, 2017 2:08 PM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL - OPG - 44% of GA Deferral from the Province.

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

It is Adam again. Wanted to know of you were free to discuss the equity injection from the Province from the perspective of OPG? Especially on the treatment of the equity (preferred vs common).

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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From: John Kim
To: Salman Qadir
Cc: Bruno Amara; Adam Prokop
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:12:26 AM
Attachments: 23344385_4.docx
Blackline_23344385v1 - 23344385_4.pdf

Salman,

If you could back up Adam on this.....

John

From: John Kim
Sent: Thursday, April 20, 2017 8:12 AM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Adam,

Can you take a look?

Thanks,

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Wednesday, April 19, 2017 5:48 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
>
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:
>
> > Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
> >
> > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> >
> > Hi Ron, Gadi,
> >
> > I hope you are enjoying the long weekend.
> >
> > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> >
> > Thanks,
> > Scott
> >
> > -----Original Message-----
> > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > Sent: April-15-17 1:16 PM
> > To: Nelms, Scott (MOF)
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Scott,
> > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > Thanks,
> > Ken
> >
> > -----Original Message-----
> > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > Sent: Thursday, April 13, 2017 8:19 PM
> > To: RYFA Ken -TREASURY
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> >
> > Hi Ryan,
> >
> > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
> >
> > Thanks,
> > Scott
> >
> > Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3Pkl2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
> >
> > From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
> > Date: Thursday, Apr 13, 2017, 6:50 PM
> > To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> > Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
> > Subject: Fair Hydro Plan - question on taxation
> >
> > Scott,
> >
> > I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

_____

_____

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_____

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Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, Ontario Power Generation Inc., the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. Providing services on behalf of a [**Financing Entity**][2], subject to the right to be paid by the Financing Entity for services, including the following services **[NTD: see further changes to OEB Act below regarding review of OPG costs]**:

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   (vi) administering the activities of a Financing Entity and preparing reports on behalf of a Financing Entity;

   (vii) enforcing the rights of a Financing Entity;

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

(vii) performing any activities incidental to the foregoing.

3. Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

Subsection 78.1(4) of the *Ontario Energy Board Act, 1998* would be amended as follows:

Board orders

(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.

Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, **Ontario Power Generation Inc.,** the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. ~~Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by that Act subject to the right of reimbursement from amounts available to the financing entity.~~**Providing services on behalf of a [Financing Entity][2], subject to the right to be paid by the Financing Entity for services, including the following services [NTD: see further changes to OEB Act below regarding review of OPG costs]:**

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   ~~3.~~ ~~Preparing~~**(vi) administering the activities of a Financing Entity and preparing** reports on behalf of ~~the financing entity.~~**a Financing Entity;**

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) enforcing the rights of a Financing Entity;

~~4. Enforcing the rights of the financing entity.~~

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

~~5. Signing offering documents as sponsor or otherwise on behalf of the financing entity~~

(vii) performing any activities incidental to the foregoing.

~~6.~~ **3.** Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts**,** **partnerships** or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under [new Act].~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under the FHA.~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

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Board orders

(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities **established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.**

Document comparison by Workshare Compare on April-19-17 10:16:27 AM

Input:	
Document 1 ID	interwovenSite://INVENTORYS1/TorysAtWork/23344385/1
Description	#23344385v1<TorysAtWork> - Fair Hydro Act (April 17 2017) Consultationv5 (002)ASEN
Document 2 ID	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Description	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Rendering set	Firm_Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	45
Deletions	15
Moved from	1
Moved to	1
Style change	0
Format changed	0
Total changes	62

From: John Kim
To: Adam Prokop
Cc: Bruno Amara
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:11:38 AM
Attachments: 23344385_4.docx
Blackline_23344385v1 - 23344385_4.pdf

Hi Adam,

Can you take a look?

Thanks,

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Wednesday, April 19, 2017 5:48 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com])

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron

On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:

> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>
> > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> >
> > Hi Ron, Gadi,
> >
> > I hope you are enjoying the long weekend.
> >
> > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> >
> > Thanks,
> > Scott
> >
> > -----Original Message-----
> > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > Sent: April-15-17 1:16 PM
> > To: Nelms, Scott (MOF)
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Scott,
> > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > Thanks,
> > Ken
> >
> > -----Original Message-----
> > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > Sent: Thursday, April 13, 2017 8:19 PM
> > To: RYFA Ken -TREASURY
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> >
> > Hi Ryan,
> >
> > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
> >
> > Thanks,
> > Scott
> >
> > Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
> >
> > From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
> > Date: Thursday, Apr 13, 2017, 6:50 PM
> > To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> > Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
> > Subject: Fair Hydro Plan - question on taxation
> >
> > Scott,
> >
> > I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
> >
> > 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
> >
> > Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
> >
> > Hope this helps.
> > Thanks,
> > Ken

_____

_____

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_____

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Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, Ontario Power Generation Inc., the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. Providing services on behalf of a [**Financing Entity**][2], subject to the right to be paid by the Financing Entity for services, including the following services **[NTD: see further changes to OEB Act below regarding review of OPG costs]**:

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   (vi) administering the activities of a Financing Entity and preparing reports on behalf of a Financing Entity;

   (vii) enforcing the rights of a Financing Entity;

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

(vii) performing any activities incidental to the foregoing.

3. Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

Subsection 78.1(4) of the *Ontario Energy Board Act, 1998* would be amended as follows:

Board orders

(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.

Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, **Ontario Power Generation Inc.,** the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. ~~Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by that Act subject to the right of reimbursement from amounts available to the financing entity.~~**Providing services on behalf of a [Financing Entity][2], subject to the right to be paid by the Financing Entity for services, including the following services [NTD: see further changes to OEB Act below regarding review of OPG costs]:**

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   ~~3.~~ ~~Preparing~~**(vi) administering the activities of a Financing Entity and preparing** reports on behalf of ~~the financing entity.~~**a Financing Entity;**

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) enforcing the rights of a Financing Entity;

~~4. Enforcing the rights of the financing entity.~~

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

~~5. Signing offering documents as sponsor or otherwise on behalf of the financing entity~~

(vii) performing any activities incidental to the foregoing.

~~6.~~ **3.** Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts**,** **partnerships** or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under [new Act].~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under the FHA.~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

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(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities **established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.**

Document comparison by Workshare Compare on April-19-17 10:16:27 AM

Input:	
Document 1 ID	interwovenSite://INVENTORYS1/TorysAtWork/23344385/1
Description	#23344385v1<TorysAtWork> - Fair Hydro Act (April 17 2017) Consultationv5 (002)ASEN
Document 2 ID	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Description	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Rendering set	Firm_Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	45
Deletions	15
Moved from	1
Moved to	1
Style change	0
Format changed	0
Total changes	62

From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Tuesday, April 25, 2017 4:48:59 PM

Hi Kaitlin,

Question.....was there a written material TPD provide? If any, could you share?

Thanks,

John

-----Original Message-----
From: Lewis, Robin (MOF) [mailto:Robin.Lewis@ontario.ca]
Sent: Friday, April 21, 2017 11:14 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

John,

We do not have a draft as yet.

I understand that not all of the design features of the asset have been finalized.

Our considerations will be limited to those concerning a PII exemption for the income from the SPV.

Regards,

Rob

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 21, 2017 11:08 AM
To: Montgomery, Kaitlin (MOF); Lewis, Robin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From: Ronald Kwan
To: John Kim
Cc: Gavin He
Subject: FW: EXTERNAL – Provincial Guarantee for Fair Hydro Program
Date: Tuesday, April 18, 2017 11:26:45 AM

Hi,

Please take a look. Comments?

Ron

-----Original Message-----
From: Gadi Mayman
Sent: April-18-17 11:13 AM
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Subject: Re: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Thanks. Has TD seen this, or commented on it? The make whole provision, rather than just moving the outstanding bonds up to being provincial debt could be extremely expensive if the guarantee is triggered and exercised.

I assume the challenge to the rating is that we're not AAA, so the debt would be downgraded to our level, but this shows the flaw in the ratings methodology, because why would you want a guarantee from someone who is supposedly less credit worthy? This is definitely, in my mind, worth pushing back on.

Regards,
Gadi

Original Message
From: Nelms, Scott (MOF)
Sent: Tuesday, April 18, 2017 11:04 AM
To: Gadi Mayman
Subject: FW: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Fyi

-----Original Message-----

From: LEE John -TREASURY [mailto:john.s.lee@opg.com]

Sent: April 16, 2017 6:28 PM

To: Hume, Steen (ENERGY); Nelms, Scott (MOF)

Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); WONG Leslie -LAWDIV

Subject: Fw: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Steen/Scott

Here is the initial view of the dealers on their ask. We can discuss further tomorrow. Maybe more efficient that we discuss prior to the group meeting in the afternoon

John

From: Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>

Sent: Thursday, April 13, 2017 9:15 PM

To: LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV

Cc: 'Sebastiano, Rocco'; 'Mullen, Max M.'; Maciel, Andrew; 'david.dalbello@rbccm.com'; 'Smith, Elliot'; 'Ms Victoria M. Turnbull'; Persaud, Donnie - Debt Capital Markets; 'Benaiah, Ian'; 'Fullerton, Rick'; Adalja, Sunil; Alvi, Shariq; Peric, Christiane

Subject: EXTERNAL – Provincial Guarantee for Fair Hydro Program

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Hey John, Ken,

Further to our discussion earlier today, please see the note below which outlines our collective views on the Provincial guarantee that would be required for the Fair Hydro Program. Happy to discuss further.

There are two types of “guarantees” that we are looking for from the Province in relation to this program on the basis that any debt issued under the Fair Hydro Program will be AAA-rated. In addition, the following is based on the understanding that the transition charges collected from prescribed consumers will begin upon the commencement of the program and will not be subject to any cap or restrictions.

The legislation must include a specific reference to the Province being required to provide a guarantee on debt repayment and servicing in certain circumstances.

The first is “Springing Guarantee”, which would be via a legal agreement put in place when establishing the program and would require the Province to step in and assume responsibility for paying all amounts that are or become due in respect of (i) any of the outstanding funding obligations; (ii) the operation and maintenance of the financing entity; and (iii) any other amounts due in relation to the program that have not yet been paid (collectively, the “Fair Hydro Program Costs”). This Springing Guarantee would kick in should any of the following happen:

(1) There is any change in the legislation or regulations that is, or could be, adverse to finance entity noteholders or the legislation is determined to be ultra vires. In this situation, the Springing Guarantee would require the immediate repayment of all Fair Hydro Program Costs (including any makewhole prepayment obligations).

(2) There is a market disruption (i.e. there is a period of time when capital markets term funding is not available to take out the warehouse facilities (bank facility or ABCP)). In this situation, either (i) we start to charge ratepayers for principal recovery via transition charges; or (ii) the Province must be responsible for the immediate repayment of those warehouse facilities.

The period of time that must lapse before this Springing Guarantee becomes applicable with respect to the warehouse facilities can be set to accommodate a short term dislocation in the term funding market (6-18 months). We would note that depending on the size of the warehouse facility, if there is no term takeout for an extended period of time, it is likely that the warehouse facilities will also quickly reach their credit limits and the province would likely have to fund any future shortfalls if they wished to continue the program.

To the extent that the Springing Guarantee does not require the Province to make the repayment contemplated under scenario (1), but simply requires the Province to repay the debt in accordance with its original repayment terms, this may adversely impact the rating of the Fair Hydro Program.

The second type of guarantee we are looking for from the province is a performance guarantee. This is not a credit guarantee. The performance guarantee would require the Province to stand behind certain obligations of the Servicer (initially IESO) in the program. This performance guarantee would be included as part of the Securitization documents for the program. It would, amongst other things, require the province to stand behind (including taking responsibility for helping remedy any breaches in) the representations, warranties, or covenants made by the servicer. It would also require the province to ensure that the servicer performs its servicing activities as set out in the securitization documents and if it does not, put in place an alternative servicer who would perform those servicing activities. The performance guarantee would also include standing behind any indemnities that may be owing by the servicer.

Donnie Persaud | Executive Director | Debt Capital Markets | CIBC Capital Markets | CIBC World Markets Inc.

161 Bay Street, 5th Floor, Toronto ON M5J 2S8 | Tel: 416-594-7511 | Fax: 416-594-7760 |
donnie.persaud@cibc.com<mailto:donnie.persaud@cibc.com>

[cid:image001.jpg@01D2B497.94C53820]

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From: Bruno Amara
To: John Kim
Subject: FW: Energy Models
Date: Tuesday, April 25, 2017 4:17:02 PM
Sensitivity: Confidential

Hi John,

I did speak with Salman about this. He and Adam continue to review this week with view to being ready to meet with Didem et all, next week. I propose we meet internally Friday re: game plan.

Bruno

From: John Kim
Sent: Tuesday, April 25, 2017 3:10 PM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Didem,

Following up on this.

Thanks,

John

From: John Kim
Sent: Wednesday, April 19, 2017 6:15 PM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Didem,

Let's aim for a sit down session here at the OFA early next week.

If you can give us a sense of the work that you're doing and your objectives, that'd be helpful. This week, we're all hands on deck with the Document but early next week we're hoping to connect.

John

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM

To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From: John Kim
To: Salman Qadir
Cc: Bruno Amara
Subject: FW: Energy Models
Date: Friday, April 21, 2017 11:26:07 AM
Sensitivity: Confidential

Fyi.

From: Ronald Kwan
Sent: Wednesday, April 19, 2017 6:42 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi John,

We should also work on a briefing deck for the Minister on the IESO financing ask, and we may as well include the equity injection process too.

The deck should likely include an upfront section to remind the Minister of the proposed structure of the IESO reg asset and OPG purchase of the asset and OPG's planned sources of funds, and the accounting treatment of the IESO and OPG.

That would be context for the potential short term needs and long-term financing ask of the IESO.

The deck should outline considerations and options.

And should the ST and /or LT facilities be better from the OFA or OEFC?

Doesn't need to be long, but the key points should be there.

Thanks,
Ron

From: John Kim
Sent: April-19-17 18:09
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Yes, we will be in touch with them soon. We have done a lot of sensitivities for Energy's model so

should be in reasonable shape.

I'm assuming also that TBS Centre of Excellence would bring some expertise of their own.

John

From: Ronald Kwan
Sent: Wednesday, April 19, 2017 6:04 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi John,

I think the report back may be on the 9th, but they still seem to be targeting LRC for the 1st and Cabinet on the 3rd, to introduce the legislation on the 4th, so, soon.

Ron

From: John Kim
Sent: April-19-17 18:01
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Ron,

We have looked at the models but we haven't focused on this request yet as we're working to get the Document-related items done today and tomorrow. We will look to focus on this, I'm expecting, starting tomorrow when the BNs, Qs and As and the doc materials are done. This is not to say we haven't looked at the models. We're familiar with Energy's modelling with some added materials. OPG's file, we will need to spend more time on. I'd expect sometime next week we would try to sit down with these guys.

My understanding is that this is related to the report back for the May 9th timeline? I understood that the report back was originally for May 1st but it's been moved to the 9th. Felix wasn't sure if this would be ready in time.

John

From: Ronald Kwan
Sent: Wednesday, April 19, 2017 5:53 PM

To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi,

How is the review coming along? Would you provide me a status update.

Thanks,
Ron

From: Ronald Kwan
Sent: April-12-17 17:41
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (EDU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From:	Bruno Amara
To:	Salman Qadir; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Cc:	John Kim
Subject:	FW: Energy Models
Date:	Wednesday, April 12, 2017 5:49:39 PM
Attachments:	GA Financing Model v9.xlsx GA Financing - by RPP period 170404.xlsm
Importance:	High
Sensitivity:	Confidential

Take a look. Did we have any of this material previously? At any rate, per Ron's email, I think we will need to get on top of it. We can discuss tomorrow.

Bruno

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

InpC

4	Active Case	1					1	2	3	4	5
5		**Constant**	**Unit**	**Comment**							
7	**FORECAST INPUT**										
8	Active Case	1	-		2		1	2	3	4	5
9	Comparison Case	1			2						
10	Case Description	ENERGY Base Case					ENERGY Base Case	ENERGY 20% Initial Reduction	ENERGY 18% Initial Reduction	Higher Gas Price Sensitivity	Federal CO2 Price
13	**TIMING ASSUMPTIONS**										
14	**Forecast Period Labels**										
15	From now to Commercial Operations Date or In-service Date	Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD
16	From COD or In-service Date to End of Operations	Operations	timeline label		-		Operations	Operations	Operations	Operations	Operations
17	From End of Operations and beyond	Post-Operation	timeline label		-		Post-Operations	Post-Operations	Post-Operations	Post-Operation	Post-Operation
19	**Forecast Period Dates and Durations**										
20	1st model column start date - Annual	01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017
21	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
22	Months per Construction Model period	1	months		-		1	1	1	1	1
23	Length of Operations period	30	years		-		30	30	30	30	30
24	Length of Regulation period	-	years		-		-	-	-	-	-
25	Last Regulation Period	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
26	Months per Operations Model period	12	months		-		12	12	12	12	12
27	Financial year end month number	12	month #		-		12	12	12	12	12
28	Financial year middle month number	6	month #		-		6	6	6	6	6
29	Annual to Semi Annual Conversion Factor (Dynamic)	1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	1.0000
30	` Inflation	2.00%	%				2.00%	2.00%	2.00%	2.00%	2.00%
34	**TECHNICAL ASSUMPTIONS**										
35	Accumulate Interst?	1	toggle		-		1	1	1	1	1
36	RPP Share of Consumption	50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	50.00%
37	Average Household Demand	1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	0.75
38	Year to Start Paying Back	2030	Year	Source: ENERGY			2030	2029	2030	2030	2030
39	Year to Finish Paying Back	2047	Year	Source: ENERGY			2047	2047	2050	2047	2047
40	Amortization Length						18	19	21	18	18
41	Public Debt Scenario?	0	toggle								
42	Sensitivity Incremental to Ministry Scenario?	0	toggle							1	1
44	**DEBT ASSUMPTIONS**										
45	Interest Rate Sensitivity Scenario?	-	toggle				-	-	-	-	-
46	Interest Rate Sensitivity	-	%		-						
47	All-in debt interest rate	5.00%	%		-		5.00%	5.00%	5.00%	5.00%	5.00%
50	**NON CHANGEABLE MODEL TECHNICAL INPUTS**										
52	Units in thousand	1,000	units/000s								

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**InpC**														
2															
3															
4					Active Case	1					1	2	3	4	5
5						**Constant**	**Unit**	**Comment**							
53					Hours per day	24	hours/day								
54					Nominal days per year	365	days/year								
55					Months in a year	12	months								
56					Cents per dollar	100	¢/$								
57					Standard Monetary Unit	$ 000s	name	"= smu"							
58					% to bps conversion factor	10,000	factor								
59					Annual to Semi-Annual Conversion Factor	0.5000	factor								
60					Semi annual periods in a year	2	periods								
61															
62	**CCA RATES**														
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet										
64					Class 1	4.00%	%								
65					Class 2	6.00%	%								
66					Class 3	5.00%	%								
67					Class 8	20.00%	%								
68					Class 43.2	50.00%	%								
69					Class 12	100.00%	%								
70					Class 17	8.00%	%								
71					Class 26	5.00%	%								
72					Class 42	12.00%	%								
73					Class 48	15.00%	%								
74					Tax Goodwill	5.25%	%								
75					Land	-	%								

InpC

	Active Case	1					6	7	8	9	10	11
		Constant	**Unit**	**Comment**								
	FORECAST INPUT											
	Active Case	1	-		2		6	7	8	9	10	11
	Comparison Case	1			2							
	Case Description	ENERGY Base Case										
							66.7 cent CAD	5 Year Reduction	30% BP Cost	7% IR	6 Year Reduction /25 Year Amortization	Low Demand
	TIMING ASSUMPTIONS											
	Forecast Period Labels											
	From now to Commercial Operations Date or In-service Date	Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD
	From COD or In-service Date to End of Operations	Operations	timeline label		-		Operations	Operations	Operations	Operations	Operations	Operations
	From End of Operations and beyond	Post-Operation	timeline label		-		Post-Operation	Post-Operation	Post-Operation	Post-Operation	Post-Operation	Post-Operation
	Forecast Period Dates and Durations											
	1st model column start date - Annual	01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017
	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
	Months per Construction Model period	1	months		-		1	1	1	1	1	1
	Length of Operations period	30	years		-		30	30	30	30	30	30
	Length of Regulation period	-	years		-		-	-	-	-	-	-
	Last Regulation Period	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
	Months per Operations Model period	12	months		-		12	12	12	12	12	12
	Financial year end month number	12	month #		-		12	12	12	12	12	12
	Financial year middle month number	6	month #		-		6	6	6	6	6	6
	Annual to Semi Annual Conversion Factor (Dynamic)	1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
`	Inflation	2.00%	%				2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
	TECHNICAL ASSUMPTIONS											
	Accumulate Interst?	1	toggle		-		1	1	1	1	1	1
	RPP Share of Consumption	50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
	Average Household Demand	1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	0.75	0.75
	Year to Start Paying Back	2030	Year	Source: ENERGY			2030	2022	2030	2030	2023	2030
	Year to Finish Paying Back	2047	Year	Source: ENERGY			2047	2042	2047	2047	2047	2047
	Amortization Length						18	21	18	18	25	18
	Public Debt Scenario?	0	toggle					1			1	
	Sensitivity Incremental to Ministry Scenario?	0	toggle				1		1			1
	DEBT ASSUMPTIONS											
	Interest Rate Sensitivity Scenario?	-	toggle				-	-	-	1	-	-
	Interest Rate Sensitivity	-	%		-					7.00%		
	All-in debt interest rate	5.00%	%		-		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
	NON CHANGEABLE MODEL TECHNICAL INPUTS											
	Units in thousand	1,000	units/000s									

	A	B	C	D	E	F	G	H	I	J	P	Q	R	S	T	U
1	**InpC**															
2																
3																
4					Active Case	1					6	7	8	9	10	11
5						**Constant**	**Unit**	**Comment**								
53					Hours per day	24	hours/day									
54					Nominal days per year	365	days/year									
55					Months in a year	12	months									
56					Cents per dollar	100	¢/$									
57					Standard Monetary Unit	$ 000s	name	"= smu"								
58					% to bps conversion factor	10,000	factor									
59					Annual to Semi-Annual Conversion Factor	0.5000	factor									
60					Semi annual periods in a year	2	periods									
61																
62	**CCA RATES**															
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet											
64					Class 1	4.00%	%									
65					Class 2	6.00%	%									
66					Class 3	5.00%	%									
67					Class 8	20.00%	%									
68					Class 43.2	50.00%	%									
69					Class 12	100.00%	%									
70					Class 17	8.00%	%									
71					Class 26	5.00%	%									
72					Class 42	12.00%	%									
73					Class 48	15.00%	%									
74					Tax Goodwill	5.25%	%									
75					Land	-	%									

InpC

4	Active Case	1					12	13	14	15	
5		**Constant**	**Unit**	**Comment**							
7	**FORECAST INPUT**										
8	Active Case	1	-		2		12	13	14	15	
9	Comparison Case	1			2						
10	Case Description	ENERGY Base Case					Double High Gas Price	Feb 27 Min Scenario	Feb 27 Min Scenario	High Demand	
13	**TIMING ASSUMPTIONS**										
14	**Forecast Period Labels**										
15	From now to Commercial Operations Date or In-service Date	Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	
16	From COD or In-service Date to End of Operations	Operations	timeline label		-		Operations	Operations	Operations	Operations	
17	From End of Operations and beyond	Post-Operation	timeline label		-		Post-Operation	Post-Operation	Post-Operation	Post-Operations	
19	**Forecast Period Dates and Durations**										
20	1st model column start date - Annual	01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	
21	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	
22	Months per Construction Model period	1	months		-		1	1	1	1	
23	Length of Operations period	30	years		-		30	30	30	30	
24	Length of Regulation period	-	years		-		-	-	-	-	
25	Last Regulation Period	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	
26	Months per Operations Model period	12	months		-		12	12	12	12	
27	Financial year end month number	12	month #		-		12	12	12	12	
28	Financial year middle month number	6	month #		-		6	6	6	6	
29	Annual to Semi Annual Conversion Factor (Dynamic)	1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	
30	` Inflation	2.00%	%				2.00%	2.00%	2.00%	2.00%	
34	**TECHNICAL ASSUMPTIONS**										
35	Accumulate Interst?	1	toggle		-		1	1	1	1	
36	RPP Share of Consumption	50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	
37	Average Household Demand	1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	
38	Year to Start Paying Back	2030	Year	Source: ENERGY			2030	2025	2025	2030	
39	Year to Finish Paying Back	2047	Year	Source: ENERGY			2047	2047	2047	2047	
40	Amortization Length						18	23	23	18	
41	Public Debt Scenario?	0	toggle								
42	Sensitivity Incremental to Ministry Scenario?	0	toggle				1			1	
44	**DEBT ASSUMPTIONS**										
45	Interest Rate Sensitivity Scenario?	-	toggle				-	-	1	-	
46	Interest Rate Sensitivity	-	%		-				7.00%		
47	All-in debt interest rate	5.00%	%		-		5.00%	5.00%	5.00%	5.00%	
50	**NON CHANGEABLE MODEL TECHNICAL INPUTS**										
52	Units in thousand	1,000	units/000s								

	A	B	C	D	E	F	G	H	I	J	V	W	X	Y	Z
1	**InpC**														
2															
3															
4					Active Case	1					12	13	14	15	
5						**Constant**	**Unit**	**Comment**							
53					Hours per day	24	hours/day								
54					Nominal days per year	365	days/year								
55					Months in a year	12	months								
56					Cents per dollar	100	¢/$								
57					Standard Monetary Unit	$ 000s	name	"= smu"							
58					% to bps conversion factor	10,000	factor								
59					Annual to Semi-Annual Conversion Factor	0.5000	factor								
60					Semi annual periods in a year	2	periods								
61															
62	**CCA RATES**														
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet										
64					Class 1	4.00%	%								
65					Class 2	6.00%	%								
66					Class 3	5.00%	%								
67					Class 8	20.00%	%								
68					Class 43.2	50.00%	%								
69					Class 12	100.00%	%								
70					Class 17	8.00%	%								
71					Class 26	5.00%	%								
72					Class 42	12.00%	%								
73					Class 48	15.00%	%								
74					Tax Goodwill	5.25%	%								
75					Land	-	%								

InpS

Model period ending	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
Debt Borrowing/Payment Schedule ($ million)					**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
IESO GA cost forecast + extrapolation					12,095	11,835	11,552	12,168	10,844	10,634	10,243	11,128	10,527
Option 1 - Bills Lowered 25%, RPP-Eligible Only													
Ratepayer GA Payment					9,595	9,327	9,051	9,094	8,184	8,374	8,569	8,768	8,972
Amount borrowed (negative) or paid back (positive) in present year					-2,501	-2,508	-2,501	-3,075	-2,660	-2,260	-1,675	-2,360	-1,555
Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-128	-263	-404	-582	-748	-902	-1,034	-1,207
Total change of debt account in present year					-2,501	-2,636	-2,764	-3,479	-3,242	-3,008	-2,577	-3,394	-2,763
Accumulated debt in present year					-2,501	-5,136	-7,900	-11,379	-14,621	-17,629	-20,205	-23,599	-26,362
Option 2 - Bills Lowered 20%, RPP-Eligible Only													
Ratepayer GA Payment					10,346	10,093	9,827	9,886	8,991	9,200	9,414	9,633	9,857
Amount borrowed (negative) or paid back (positive) in present year					-1,749	-1,742	-1,725	-2,283	-1,852	-1,433	-829	-1,495	-670
Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-89	-183	-281	-412	-528	-628	-703	-815
Total change of debt account in present year					-1,749	-1,831	-1,908	-2,564	-2,264	-1,961	-1,457	-2,198	-1,485
Accumulated debt in present year					-1,749	-3,580	-5,488	-8,052	-10,316	-12,278	-13,735	-15,933	-17,418
Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only													
Ratepayer GA Payment					10,648	10,303	10,186	10,873	9,733	9,573	9,240	10,128	9,620
Amount borrowed (negative) or paid back (positive) in present year					-1,447	-1,532	-1,366	-1,296	-1,110	-1,061	-1,004	-1,000	-907
Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-74	-156	-234	-312	-385	-459	-534	-612
Total change of debt account in present year					-1,447	-1,606	-1,522	-1,530	-1,423	-1,446	-1,463	-1,534	-1,520
Accumulated debt in present year					-1,447	-3,053	-4,575	-6,105	-7,527	-8,973	-10,436	-11,970	-13,490
Debt Borrowing/Payment Schedule ($ million)					**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
IESO GA cost forecast + extrapolation					12,095	11,835	11,552	12,168	10,844	10,634	10,243	11,128	10,527
Option 1 - Bills Lowered 25%, RPP-Eligible Only													
Ratepayer GA Payment					9,595	9,327	9,051	9,094	8,184	8,374	8,569	8,768	8,972
Accumulated debt in present year (including 5% interest, compounded monthly)					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
Option 2 - Bills Lowered 20%, RPP-Eligible Only													
Ratepayer GA Payment					10,346	10,093	9,827	9,886	8,991	9,200	9,414	9,633	9,857
Accumulated debt in present year (including 5% interest, compounded monthly)					1,749	3,580	5,488	8,052	10,316	12,278	13,735	15,933	17,418
Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only													
Ratepayer GA Payment					10,648	10,303	10,186	10,873	9,733	9,573	9,240	10,128	9,620
Accumulated debt in present year (including 5% interest, compounded monthly)					1,447	3,053	4,575	6,105	7,527	8,973	10,436	11,970	13,490

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
3														
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
5														
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
47	*Source: Ministry of Energy*													
48														
49	ENERGY Base Case					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
50	ENERGY 20% Initial Reduction					1,749	1,742	1,725	2,283	1,852	1,433	829	1,495	670
51	ENERGY 18% Initial Reduction					1,447	1,532	1,366	1,296	1,110	1,061	1,004	1,000	907
52	Higher Gas Price Sensitivity					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
53	Federal CO2 Price					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
54	66.7 cent CAD					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
55	5 year reduction / 21 Year Amortization													
56	30% BP Cost					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
57	7% IR					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
58	6 Year / 25 Year Amortization													
59	Low Demand					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
60	Double High Gas Price					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
61	Feb 27 Min Scenario					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093	-215
62	Feb 27 7% IR					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093	-215
63	High Demand					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
64	Annual Ratepayer Borrowing for GA (Repayment)					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity					18	41	59	156	219	287	555	452	836
70	Federal CO2 Price					0	10	18	60	93	129	206	128	204
71	66.7 cent CAD					0	15	28	89	101	126	227	156	279
72	5 year reduction / 21 Year Amortization					2,501	2,508	2,501	3,075	2,660				
73	30% BP Cost					948	840	997	854	829	929	780	941	912
74	7% IR													
75	6 Year / 25 Year Amortization					2,501	2,508	2,501	3,075	2,660	2,260			
76	Low Demand					74	149	254	302	372	419	267	420	137
77	Double High Gas Price					33	82	116	302	435	587	1,164	868	1,634
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand					-46	-135	-247	-295	-382	-440	-224	-439	-244
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					143	143	142	142	142	142	142	142	142
85	ENERGY 20% Initial Reduction					143	143	142	142	142	142	142	142	142
86	ENERGY 18% Initial Reduction					143	143	142	142	142	142	142	142	142
87	Higher Gas Price Sensitivity					143	143	142	142	142	142	142	142	142
88	Federal CO2 Price					143	143	142	142	142	142	142	142	142
89	66.7 cent CAD					143	143	142	142	142	142	142	142	142
90	5 year reduction / 21 Year Amortization					143	143	142	142	142	142	142	142	142
91	30% BP Cost					143	143	142	142	142	142	142	142	142
92	7% IR					143	143	142	142	142	142	142	142	142
93	6 Year / 25 Year Amortization					143	143	142	142	142	142	142	142	142
94	Low Demand					142	141	139	138	136	135	135	134	133
95	Double High Gas Price					143	143	142	142	142	142	142	142	142
96	Feb 27 Min Scenario					143	143	142	142	142	142	142	142	142
97	Feb 27 7% IR					143	143	142	142	142	142	142	142	142
98	High Demand					144	145	145	147	149	150	152	154	156
99	Total Electricity Demand					143	143	142	142	142	142	142	142	142
100														
101	Base Electricity Demand					143	143	142	142	142	142	142	142	142

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
3														
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
5														
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
102														
103	ENERGY Base Residential Bill					153	155	158	168	166	169	174	176	185
104														
105	Low Demand					(18)	(50)	(81)	(146)	(190)	(242)	(438)	(423)	(750)
106														
107														
108	OPG Base Demand					140	140	141	142	142	142	143	145	145
109	OPG High Demand (Outlook D)					140	142	144	147	148	151	154	157	160
110	OPG Low Demand (Outlook A)					139	138	137	137	136	136	136	137	136
111	OPG High Demand Delta					0.8	2.1	3.4	4.9	6.6	8.4	10.2	12.3	14.4
112	OPG Low Demand Delta					(1.0)	(2.1)	(3.3)	(4.5)	(5.6)	(6.6)	(7.4)	(8.2)	(9.0)
113														
114														
115	Change in Unit Electricity Cost -Low Demand					0.52	1.04	1.79	2.13	2.62	2.95	1.88	2.96	0.96
116	Change in Unit Electricity Cost -High Demand					(0.32)	(0.94)	(1.74)	(2.08)	(2.69)	(3.10)	(1.58)	(3.09)	(1.72)
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	0.52	1.04	1.79	2.13	2.62	2.95	1.88	2.96	0.96
120	Total Electricity Demand	-	-	-	-	143	143	142	142	142	142	142	142	142
121	Additional Cost from Low Demand					74	149	254	302	372	419	267	420	137
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	(0)	(1)	(2)	(2)	(3)	(3)	(2)	(3)	(2)
124	Total Electricity Demand	-	-	-	-	143	143	142	142	142	142	142	142	142
125	Additional Savings from High Demand					(46)	(135)	(247)	(295)	(382)	(440)	(224)	(439)	(244)

InpS

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
12	***Debt Borrowing/Payment Schedule***					**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					10,033	11,043	10,819	10,009	9,721	8,654	8,820	8,238	7,756
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					9,180	9,394	9,612	9,835	10,064	10,298	10,537	10,782	11,033
17	Amount borrowed (negative) or paid back (positive) in present year					-853	-1,649	-1,207	-173	343	1,644	1,718	2,544	3,277
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,349	-1,461	-1,620	-1,765	-1,864	-1,942	-1,957	-1,970	-1,940
19	Total change of debt account in present year					-2,202	-3,111	-2,828	-1,938	-1,522	-299	-240	575	1,336
20	Accumulated debt in present year					-28,564	-31,674	-34,502	-36,440	-37,962	-38,260	-38,500	-37,925	-36,589
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					10,086	10,321	10,560	10,806	11,057	10,555	10,720	10,138	9,657
23	Amount borrowed (negative) or paid back (positive) in present year					53	-722	-259	797	1,336	1,900	1,900	1,900	1,900
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-891	-934	-1,019	-1,084	-1,099	-1,087	-1,045	-1,001	-955
25	Total change of debt account in present year					-838	-1,656	-1,277	-287	237	814	855	899	945
26	Accumulated debt in present year					-18,256	-19,913	-21,190	-21,477	-21,240	-20,426	-19,571	-18,672	-17,727
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					9,238	10,318	10,253	9,956	10,007	9,167	9,538	9,264	9,366
29	Amount borrowed (negative) or paid back (positive) in present year					-796	-725	-566	-52	286	513	718	1,026	1,610
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-690	-766	-842	-915	-964	-999	-1,024	-1,039	-1,040
31	Total change of debt account in present year					-1,486	-1,491	-1,409	-967	-678	-486	-305	-13	570
32	Accumulated debt in present year					-14,976	-16,467	-17,876	-18,843	-19,521	-20,007	-20,312	-20,325	-19,755
35	***Debt Borrowing/Payment Schedule***					**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					10,033	11,043	10,819	10,009	9,721	8,654	8,820	8,238	7,756
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					9,180	9,394	9,612	9,835	10,064	10,298	10,537	10,782	11,033
40	Accumulated debt in present year (including 5% interest, compounded monthly)					28,564	31,674	34,502	36,440	37,962	38,260	38,500	37,925	36,589
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					10,086	10,321	10,560	10,806	11,057	10,555	10,720	10,138	9,657
43	Accumulated debt in present year (including 5% interest, compounded monthly)					18,256	19,913	21,190	21,477	21,240	20,426	19,571	18,672	17,727
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					9,238	10,318	10,253	9,956	10,007	9,167	9,538	9,264	9,366
46	Accumulated debt in present year (including 5% interest, compounded monthly)					14,976	16,467	17,876	18,843	19,521	20,007	20,312	20,325	19,755

InpS

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
47	*Source: Ministry of Energy*													
49	ENERGY Base Case					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
50	ENERGY 20% Initial Reduction					-53	722	259	-797	-1,336	-1,900	-1,900	-1,900	-1,900
51	ENERGY 18% Initial Reduction					796	725	566	52	-286	-513	-718	-1,026	-1,610
52	Higher Gas Price Sensitivity					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
53	Federal CO2 Price					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
54	66.7 cent CAD					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
55	5 year reduction / 21 Year Amortization													
56	30% BP Cost					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
57	7% IR					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
58	6 Year / 25 Year Amortization													
59	Low Demand					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
60	Double High Gas Price					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
61	Feb 27 Min Scenario					-1,464	-1,264	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
62	Feb 27 7% IR					-1,464	-1,264	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
63	High Demand					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
64	Annual Ratepayer Borrowing for GA (Repayment)					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity					744	729	663	629	632	666	607	545	534
70	Federal CO2 Price					162	143	117	87	84	74	55	38	26
71	66.7 cent CAD					242	241	220	222	218	232	212	193	194
72	5 year reduction / 21 Year Amortization													
73	30% BP Cost					883	966	999	1099	1055	1069	1122	1230	1307
74	7% IR													
75	6 Year / 25 Year Amortization													
76	Low Demand					194	267	294	349	211	211	214	274	311
77	Double High Gas Price					1,436	1,417	1,290	1,191	1,265	1,327	1,220	1,112	1,095
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand					-350	-460	-493	-409	-438	-372	-340	-371	-454
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					141	142	142	142	143	143	144	145	146
85	ENERGY 20% Initial Reduction					141	142	142	142	143	143	144	145	146
86	ENERGY 18% Initial Reduction					141	142	142	142	143	143	144	145	146
87	Higher Gas Price Sensitivity					141	142	142	142	143	143	144	145	146
88	Federal CO2 Price					141	142	142	142	143	143	144	145	146
89	66.7 cent CAD					141	142	142	142	143	143	144	145	146
90	5 year reduction / 21 Year Amortization					141	142	142	142	143	143	144	145	146
91	30% BP Cost					141	142	142	142	143	143	144	145	146
92	7% IR					141	142	142	142	143	143	144	145	146
93	6 Year / 25 Year Amortization					141	142	142	142	143	143	144	145	146
94	Low Demand					132	132	131	130	131	130	131	132	132
95	Double High Gas Price					141	142	142	142	143	143	144	145	146
96	Feb 27 Min Scenario					141	142	142	142	143	143	144	145	146
97	Feb 27 7% IR					141	142	142	142	143	143	144	145	146
98	High Demand					158	161	164	166	170	173	177	181	185
99	Total Electricity Demand					141	142	142	142	143	143	144	145	146
100														
101	Base Electricity Demand					141	142	142	142	143	143	144	145	146

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
3														
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
5														
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
102														
103	ENERGY Base Residential Bill					181	190	190	190	192	194	197	199	200
104														
105	Low Demand					(736)	(780)	(794)	(764)	(934)	(978)	(982)	(978)	(1,007)
106														
107														
108	OPG Base Demand					146	147	148	149	150	150	151	153	154
109	OPG High Demand (Outlook D)					163	166	170	173	177	180	184	188	193
110	OPG Low Demand (Outlook A)					137	137	137	137	138	138	138	139	140
111	OPG High Demand Delta					16.8	19.2	21.7	24.2	26.9	29.7	32.6	35.7	39.0
112	OPG Low Demand Delta					(9.5)	(10.3)	(11.1)	(11.6)	(12.1)	(12.6)	(13.0)	(13.5)	(14.0)
113														
114														
115	Change in Unit Electricity Cost -Low Demand					1.37	1.88	2.07	2.46	1.47	1.48	1.49	1.89	2.13
116	Change in Unit Electricity Cost -High Demand					(2.48)	(3.24)	(3.47)	(2.88)	(3.06)	(2.60)	(2.36)	(2.56)	(3.11)
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	1.37	1.88	2.07	2.46	1.47	1.48	1.49	1.89	2.13
120	Total Electricity Demand	-	-	-	-	141	142	142	142	143	143	144	145	146
121	Additional Cost from Low Demand					194	267	294	349	211	211	214	274	311
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	(2)	(3)	(3)	(3)	(3)	(3)	(2)	(3)	(3)
124	Total Electricity Demand	-	-	-	-	141	142	142	142	143	143	144	145	146
125	Additional Savings from High Demand					(350)	(460)	(493)	(409)	(438)	(372)	(340)	(371)	(454)

InpS

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
12	***Debt Borrowing/Payment Schedule***					**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					5,662	5,389	5,129	4,881	4,645	4,421	4,207	4,004	3,811
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					9,585	9,311	9,051	8,803	8,567	8,343	8,130	7,926	7,733
17	Amount borrowed (negative) or paid back (positive) in present year					3,922	3,922	3,922	3,922	3,922	3,922	3,922	3,922	3,922
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,872	-1,767	-1,657	-1,541	-1,419	-1,291	-1,156	-1,015	-866
19	Total change of debt account in present year					2,050	2,155	2,266	2,382	2,503	2,631	2,766	2,908	3,056
20	Accumulated debt in present year					-34,538	-32,383	-30,117	-27,736	-25,232	-22,601	-19,835	-16,927	-13,871
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					7,563	7,289	7,029	6,781	6,545	6,321	6,108	5,904	5,711
23	Amount borrowed (negative) or paid back (positive) in present year					1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-907	-856	-803	-746	-687	-625	-560	-492	-420
25	Total change of debt account in present year					993	1,044	1,098	1,154	1,213	1,275	1,340	1,409	1,481
26	Accumulated debt in present year					-16,733	-15,689	-14,591	-13,438	-12,225	-10,950	-9,610	-8,201	-6,720
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					7,879	7,837	7,587	7,441	6,978	6,544	6,160	5,805	5,348
29	Amount borrowed (negative) or paid back (positive) in present year					2,217	2,448	2,459	2,560	2,333	2,123	1,952	1,801	1,538
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,011	-949	-872	-791	-701	-617	-540	-468	-400
31	Total change of debt account in present year					1,206	1,499	1,586	1,769	1,633	1,506	1,412	1,333	1,138
32	Accumulated debt in present year					-18,549	-17,050	-15,464	-13,694	-12,062	-10,556	-9,143	-7,810	-6,672
35	***Debt Borrowing/Payment Schedule***					**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					5,662	5,389	5,129	4,881	4,645	4,421	4,207	4,004	3,811
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					9,585	9,311	9,051	8,803	8,567	8,343	8,130	7,926	7,733
40	Accumulated debt in present year (including 5% interest, compounded monthly)					34,538	32,383	30,117	27,736	25,232	22,601	19,835	16,927	13,871
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					7,563	7,289	7,029	6,781	6,545	6,321	6,108	5,904	5,711
43	Accumulated debt in present year (including 5% interest, compounded monthly)					16,733	15,689	14,591	13,438	12,225	10,950	9,610	8,201	6,720
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					7,879	7,837	7,587	7,441	6,978	6,544	6,160	5,805	5,348
46	Accumulated debt in present year (including 5% interest, compounded monthly)					18,549	17,050	15,464	13,694	12,062	10,556	9,143	7,810	6,672

InpS

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
47	*Source: Ministry of Energy*													
49	ENERGY Base Case					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
50	ENERGY 20% Initial Reduction					-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900
51	ENERGY 18% Initial Reduction					-2,217	-2,448	-2,459	-2,560	-2,333	-2,123	-1,952	-1,801	-1,538
52	Higher Gas Price Sensitivity					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
53	Federal CO2 Price					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
54	66.7 cent CAD					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
55	5 year reduction / 21 Year Amortization													
56	30% BP Cost					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
57	7% IR					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
58	6 Year / 25 Year Amortization													
59	Low Demand					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
60	Double High Gas Price					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
61	Feb 27 Min Scenario					-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
62	Feb 27 7% IR					-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
63	High Demand					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
64	Annual Ratepayer Borrowing for GA (Repayment)					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity					549	581	563	563	563	563	563	563	563
70	Federal CO2 Price					14	41	41	41	41	41	41	41	41
71	66.7 cent CAD					200	206	206	206	206	206	206	206	206
72	5 year reduction / 21 Year Amortization													
73	30% BP Cost					1292	1204	1204	1204	1204	1204	1204	1204	1204
74	7% IR													
75	6 Year / 25 Year Amortization													
76	Low Demand					292	261	261	261	261	261	261	261	261
77	Double High Gas Price					1,122	1205	1151	1151	1151	1151	1151	1151	1151
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand					-229	-353	-353	-353	-353	-353	-353	-353	-353
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					148	149	149	150	150	151	152	152	153
85	ENERGY 20% Initial Reduction					148	149	149	150	150	151	152	152	153
86	ENERGY 18% Initial Reduction					148	149	149	150	150	151	152	152	153
87	Higher Gas Price Sensitivity					148	149	149	150	150	151	152	152	153
88	Federal CO2 Price					148	149	149	150	150	151	152	152	153
89	66.7 cent CAD					148	149	149	150	150	151	152	152	153
90	5 year reduction / 21 Year Amortization					148	149	149	150	150	151	152	152	153
91	30% BP Cost					148	149	149	150	150	151	152	152	153
92	7% IR					148	149	149	150	150	151	152	152	153
93	6 Year / 25 Year Amortization					148	149	149	150	150	151	152	152	153
94	Low Demand					134	134	135	135	136	136	137	138	138
95	Double High Gas Price					148	149	149	150	150	151	152	152	153
96	Feb 27 Min Scenario					148	149	149	150	150	151	152	152	153
97	Feb 27 7% IR					148	149	149	150	150	151	152	152	153
98	High Demand					191	191	192	193	194	194	195	196	197
99	Total Electricity Demand					148	149	149	150	150	151	152	152	153
100														
101	Base Electricity Demand					148	149	149	150	150	151	152	152	153

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3														
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5														
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
102														
103	ENERGY Base Residential Bill					197	198	199	199	200	201	202	203	204
104														
105	Low Demand					(1,033)	-	-	-	-	-	-	-	-
106														
107														
108	OPG Base Demand					155	156	156	157	158	158	159	160	160
109	OPG High Demand (Outlook D)					198	199	199	200	201	202	203	204	204
110	OPG Low Demand (Outlook A)					141	141	142	143	143	144	144	145	146
111	OPG High Demand Delta					42.5	42.7	42.9	43.0	43.2	43.4	43.6	43.8	43.9
112	OPG Low Demand Delta					(14.4)	(14.5)	(14.5)	(14.6)	(14.6)	(14.7)	(14.8)	(14.8)	(14.9)
113							0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
114														
115	Change in Unit Electricity Cost -Low Demand					1.98								
116	Change in Unit Electricity Cost -High Demand					(1.54)								
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	1.98	-	-	-	-	-	-	-	-
120	Total Electricity Demand	-	-	-	-	148	149	149	150	150	151	152	152	153
121	Additional Cost from Low Demand					292	-	-	-	-	-	-	-	-
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	(2)	-	-	-	-	-	-	-	-
124	Total Electricity Demand	-	-	-	-	148	149	149	150	150	151	152	152	153
125	Additional Savings from High Demand					(229)	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
12	***Debt Borrowing/Payment Schedule***					**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**		
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					3,627	3,451	3,285	3,126	2,975	2,831	2,695		
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					7,549	7,374	7,207	7,048	2,975	2,831	2,695		
17	Amount borrowed (negative) or paid back (positive) in present year					3,922	3,922	3,922	3,922	0	0	0		
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-710	-545	-373	-191	0	0	0		
19	Total change of debt account in present year					3,213	3,377	3,550	3,731	0	0	0		
20	Accumulated debt in present year					-10,658	-7,281	-3,731	0	0	0	0		
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					5,527	5,352	5,185	5,026	2,975	2,831	2,695		
23	Amount borrowed (negative) or paid back (positive) in present year					1,900	1,900	1,900	1,900	0	0	0		
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-344	-264	-180	-92	0	0	0		
25	Total change of debt account in present year					1,556	1,636	1,720	1,808	0	0	0		
26	Accumulated debt in present year					-5,164	-3,528	-1,808	0	0	0	0		
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					4,712	4,007	3,619	3,425	3,156	3,011	2,878		
29	Amount borrowed (negative) or paid back (positive) in present year					1,085	555	334	298	180	180	183		
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-341	-303	-290	-288	-288	-293	-299		
31	Total change of debt account in present year					744	252	43	10	-107	-113	-115		
32	Accumulated debt in present year					-5,928	-5,676	-5,633	-5,623	-5,730	-5,843	-5,959		
35	***Debt Borrowing/Payment Schedule***					**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**		
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					3,627	3,451	3,285	3,126	2,975	2,831	2,695		
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					7,549	7,374	7,207	7,048	2,975	2,831	2,695		
40	Accumulated debt in present year (including 5% interest, compounded monthly)					10,658	7,281	3,731	0	0	0	0		
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					5,527	5,352	5,185	5,026	2,975	2,831	2,695		
43	Accumulated debt in present year (including 5% interest, compounded monthly)					5,164	3,528	1,808	0	0	0	0		
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					4,712	4,007	3,619	3,425	3,156	3,011	2,878		
46	Accumulated debt in present year (including 5% interest, compounded monthly)					5,928	5,676	5,633	5,623	5,730	5,843	5,959		

	A	B	C	D	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3																		
4					Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case					-3,922	-3,922	-3,922	-3,922	0	0	0		
50					ENERGY 20% Initial Reduction					-1,900	-1,900	-1,900	-1,900	0	0	0		
51					ENERGY 18% Initial Reduction					-1,085	-555	-334	-298	-180	-180	-183		
52					Higher Gas Price Sensitivity					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
53					Federal CO2 Price					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
54					66.7 cent CAD					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
55					5 year reduction / 21 Year Amortization												0	0
56					30% BP Cost					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
57					7% IR					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
60					Double High Gas Price					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
61					Feb 27 Min Scenario					-1,736	-1,736	-1,736	-1,736	0	0	0		
62					Feb 27 7% IR					-1,736	-1,736	-1,736	-1,736	0	0	0		
63					High Demand					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)					-3,922	-3,922	-3,922	-3,922	0	0	0		
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity					563	563	563	563					
70					Federal CO2 Price					41	41	41	41					
71					66.7 cent CAD					206	206	206	206					
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost					1204	1204	1204	1204					
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand					261	261	261	261					
77					Double High Gas Price					1151	1151	1151	1151					
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand					-353	-353	-353	-353					
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					154	154	155	156	156	157	158	-	-
85					ENERGY 20% Initial Reduction					154	154	155	156	156	157	158	-	-
86					ENERGY 18% Initial Reduction					154	154	155	156	156	157	158	-	-
87					Higher Gas Price Sensitivity					154	154	155	156	156	157	158	-	-
88					Federal CO2 Price					154	154	155	156	156	157	158	-	-
89					66.7 cent CAD					154	154	155	156	156	157	158	-	-
90					5 year reduction / 21 Year Amortization					154	154	155	156	156	157	158	-	-
91					30% BP Cost					154	154	155	156	156	157	158	-	-
92					7% IR					154	154	155	156	156	157	158	-	-
93					6 Year / 25 Year Amortization					154	154	155	156	156	157	158	-	-
94					Low Demand					139	139	140	140	141	142	142	-	-
95					Double High Gas Price					154	154	155	156	156	157	158	-	-
96					Feb 27 Min Scenario					154	154	155	156	156	157	158	-	-
97					Feb 27 7% IR					154	154	155	156	156	157	158	-	-
98					High Demand					198	199	199	200	201	202	203	-	-
99					Total Electricity Demand					154	154	155	156	156	157	158	0	0
100																		
101					Base Electricity Demand					154	154	155	156	156	157	158	-	-

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3														
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5														
6	Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
102														
103	ENERGY Base Residential Bill					204	205	206	207	208	209	210	-	-
104														
105	Low Demand					-	-	-	-	-	-	-	-	-
106														
107														
108	OPG Base Demand					161	162	162	163	164	164	165		
109	OPG High Demand (Outlook D)					205	206	207	208	209	210	210		
110	OPG Low Demand (Outlook A)					146	147	147	148	149	149	150		
111	OPG High Demand Delta					44.1	44.3	44.5	44.7	44.9	45.0	45.2		
112	OPG Low Demand Delta					(14.9)	(15.0)	(15.1)	(15.1)	(15.2)	(15.3)	(15.3)		
113						0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%		
114														
115	Change in Unit Electricity Cost -Low Demand													
116	Change in Unit Electricity Cost -High Demand													
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120	Total Electricity Demand	-	-	-	-	154	154	155	156	156	157	158	-	-
121	Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124	Total Electricity Demand	-	-	-	-	154	154	155	156	156	157	158	-	-
125	Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
6	Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
6	Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3														
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5														
6	Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
47	*Source: Ministry of Energy*													
48														
49	ENERGY Base Case													
50	ENERGY 20% Initial Reduction													
51	ENERGY 18% Initial Reduction													
52	Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53	Federal CO2 Price					0	0	0	0	0	0	0	0	0
54	66.7 cent CAD					0	0	0	0	0	0	0	0	0
55	5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56	30% BP Cost					0	0	0	0	0	0	0	0	0
57	7% IR					0	0	0	0	0	0	0	0	0
58	6 Year / 25 Year Amortization													
59	Low Demand					0	0	0	0	0	0	0	0	0
60	Double High Gas Price					0	0	0	0	0	0	0	0	0
61	Feb 27 Min Scenario													
62	Feb 27 7% IR													
63	High Demand					0	0	0	0	0	0	0	0	0
64	Annual Ratepayer Borrowing for GA (Repayment)													
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity													
70	Federal CO2 Price													
71	66.7 cent CAD													
72	5 year reduction / 21 Year Amortization													
73	30% BP Cost													
74	7% IR													
75	6 Year / 25 Year Amortization													
76	Low Demand													
77	Double High Gas Price													
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand													
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					-	-	-	-	-	-	-	-	-
85	ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86	ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87	Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88	Federal CO2 Price					-	-	-	-	-	-	-	-	-
89	66.7 cent CAD					-	-	-	-	-	-	-	-	-
90	5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91	30% BP Cost					-	-	-	-	-	-	-	-	-
92	7% IR					-	-	-	-	-	-	-	-	-
93	6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94	Low Demand					-	-	-	-	-	-	-	-	-
95	Double High Gas Price					-	-	-	-	-	-	-	-	-
96	Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97	Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98	High Demand					-	-	-	-	-	-	-	-	-
99	Total Electricity Demand					0	0	0	0	0	0	0	0	0
100														
101	Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80	81
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3																		
4					Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3																		
4					Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107	108
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107	108
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		109	110	111	112	113	114	115	116	117
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	109	110	111	112	113	114	115	116	117
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	109	110	111	112	113	114	115	116	117
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	127	128	129	130	131	132	133	134	135
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	127	128	129	130	131	132	133	134	135
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	136	137	138	139	140	141	142	143	144
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	136	137	138	139	140	141	142	143	144
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	145	146	147	148	149	150	151	152	153
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	145	146	147	148	149	150	151	152	153
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

InpS

	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
4	Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
6	Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3																		
4					Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	163	164	165	166	167	168	169	170	171
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3																		
4					Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	163	164	165	166	167	168	169	170	171
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	190	191	192	193	194	195	196	197	198
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	190	191	192	193	194	195	196	197	198
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	190	191	192	193	194	195	196	197	198
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

InpS

2		**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
4		Financial year ending					2215	2216
6		Model column counter	**Constant**	**Unit**		**Total**	199	200
12		***Debt Borrowing/Payment Schedule***						
13		***($ million)***						
14		IESO GA cost forecast + extrapolation						
15		***Option 1 - Bills Lowered 25%, RPP-Eligible Only***						
16		Ratepayer GA Payment						
17		Amount borrowed (negative) or paid back (positive) in present year						
18		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
19		Total change of debt account in present year						
20		Accumulated debt in present year						
21		***Option 2 - Bills Lowered 20%, RPP-Eligible Only***						
22		Ratepayer GA Payment						
23		Amount borrowed (negative) or paid back (positive) in present year						
24		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
25		Total change of debt account in present year						
26		Accumulated debt in present year						
27		***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***						
28		Ratepayer GA Payment						
29		Amount borrowed (negative) or paid back (positive) in present year						
30		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
31		Total change of debt account in present year						
32		Accumulated debt in present year						
35		***Debt Borrowing/Payment Schedule***						
36		***($ million)***						
37		IESO GA cost forecast + extrapolation						
38		***Option 1 - Bills Lowered 25%, RPP-Eligible Only***						
39		Ratepayer GA Payment						
40		Accumulated debt in present year (including 5% interest, compounded monthly)						
41		***Option 2 - Bills Lowered 20%, RPP-Eligible Only***						
42		Ratepayer GA Payment						
43		Accumulated debt in present year (including 5% interest, compounded monthly)						
44		***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***						
45		Ratepayer GA Payment						
46		Accumulated debt in present year (including 5% interest, compounded monthly)						

	E	F	G	H	I	GZ	HA
1	**InpS**						
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
3							
4	Financial year ending					2215	2216
5							
6	Model column counter	**Constant**	**Unit**		**Total**	199	200
47	*Source: Ministry of Energy*						
48							
49	ENERGY Base Case						
50	ENERGY 20% Initial Reduction						
51	ENERGY 18% Initial Reduction						
52	Higher Gas Price Sensitivity					0	0
53	Federal CO2 Price					0	0
54	66.7 cent CAD					0	0
55	5 year reduction / 21 Year Amortization					0	0
56	30% BP Cost					0	0
57	7% IR					0	0
58	6 Year / 25 Year Amortization						
59	Low Demand					0	0
60	Double High Gas Price					0	0
61	Feb 27 Min Scenario						
62	Feb 27 7% IR						
63	High Demand					0	0
64	Annual Ratepayer Borrowing for GA (Repayment)						
65							
66	ENERGY Base Case						
67	ENERGY 20% Initial Reduction						
68	ENERGY 18% Initial Reduction						
69	Higher Gas Price Sensitivity						
70	Federal CO2 Price						
71	66.7 cent CAD						
72	5 year reduction / 21 Year Amortization						
73	30% BP Cost						
74	7% IR						
75	6 Year / 25 Year Amortization						
76	Low Demand						
77	Double High Gas Price						
78	Feb 27 Min Scenario						
79	Feb 27 7% IR						
80	High Demand						
81	Change in Total System Cost due to Sensitivity					0	0
82							
83	**Electricity Demand**						
84	ENERGY Base Case						
85	ENERGY 20% Initial Reduction					-	-
86	ENERGY 18% Initial Reduction					-	-
87	Higher Gas Price Sensitivity					-	-
88	Federal CO2 Price					-	-
89	66.7 cent CAD					-	-
90	5 year reduction / 21 Year Amortization					-	-
91	30% BP Cost					-	-
92	7% IR					-	-
93	6 Year / 25 Year Amortization					-	-
94	Low Demand					-	-
95	Double High Gas Price					-	-
96	Feb 27 Min Scenario					-	-
97	Feb 27 7% IR					-	-
98	High Demand					-	-
99	Total Electricity Demand					0	0
100							
101	Base Electricity Demand						

	A	B	C	D	E	F	G	H	I	GZ	HA
1	**InpS**										
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
3											
4					Financial year ending					2215	2216
5											
6					Model column counter	**Constant**	**Unit**	**Total**		199	200
102											
103					ENERGY Base Residential Bill						
104											
105					Low Demand					-	-
106											
107											
108					OPG Base Demand						
109					OPG High Demand (Outlook D)						
110					OPG Low Demand (Outlook A)						
111					OPG High Demand Delta						
112					OPG Low Demand Delta						
113											
114											
115					Change in Unit Electricity Cost -Low Demand						
116					Change in Unit Electricity Cost -High Demand						
117											
118											
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-		
120					Total Electricity Demand	-	-	-	-		
121					Additional Cost from Low Demand						
122											
123					Change in Unit Electricity Cost -High Demand	-	-	-	-		
124					Total Electricity Demand	-	-	-	-		
125					Additional Savings from High Demand						

Debt

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
17	Cumulative Principal					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					-	128	391	795	1,377	2,125	3,027	4,061	5,268
22	Total Debt					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
24	Compounded Interest Rate	5.12%												
25	Interest					128	263	404	582	748	902	1,034	1,207	1,349
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					128	391	795	1,377	2,125	3,027	4,061	5,268	6,617
29	Annual Principal Addition (Repayment)					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394	2,763
34	Borrowing for Rate Reductions					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					-	128	263	404	582	748	902	1,034	1,207
37	Principle Repayment					-	-	-	-	-	-	-	-	-
39	Principle Balance					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					-	128	391	795	1,377	2,125	3,027	4,061	5,268
42	Total Debt Balance					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
58	Accumulated Interest Balance	-		-	- -	-	-	-	-	-	-	-	-	-
59	Total Debt Balance					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					-	-	-	-	-	-	-	-	-
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance						-	-	-	-	-	-	-	-

Debt

Model period ending						**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending						2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter		**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
Accumulated Interest Base Case		6,178												
Accumulated Interest		7,537												
Change in Accumulated Interest		1,359												
Year to Finish Paying Back		2047	Year											
Year to Start Paying Back		2030	Year											
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year											
Accumulate Interst?		1		toggle										
Interest Paid						-	-	-	-	-	-	-	-	-
Total Principal Repayment		-		-	-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-		-	-	-	-	-	-	-	-	-	-	-
Interest Paid		-		-	-	-	-	-	-	-	-	-	-	-
Total Debt Service						-	-	-	-	-	-	-	-	-
Interest Rate Sensitivity Scenario?		-		toggle										
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service		-		-	-	-	-	-	-	-	-	-	-	-
RPP Cost IR Sensitivity						-	-	-	-	-	-	-	-	-

OPG Sensitivity

Public Debt Scenario?		0												
Change in Total System Cost due to Sensitivity		-		-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption		50.00%	%											
Inflation		2.00%	%											
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back		2047	Year											
Year to Start Paying Back		2030	Year											
	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**Debt**																	
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
3																		
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						-	-	-	-	-	-	-	-	-
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	-	-	-	-	-	-	-	-	-
180					Total Debt Service						-	-	-	-	-	-	-	-	-

Debt

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	853	1,649	1,207	173	(343)	(1,644)	(1,718)	(2,544)	(3,277)
17	Cumulative Principal					21,947	23,596	24,803	24,977	24,634	22,990	21,273	18,728	15,452
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					6,617	8,078	9,699	11,464	13,328	15,271	17,228	19,198	21,138
22	Total Debt					28,564	31,675	34,502	36,441	37,962	38,261	38,501	37,926	36,590
24	Compounded Interest Rate	5.12%												
25	Interest					1,461	1,621	1,765	1,864	1,942	1,957	1,970	1,940	1,872
26						-	-	-	-	1,600	314	252	-	-
27	Cumulative Interest					8,078	9,699	11,464	13,328	15,271	17,228	19,198	21,138	23,010
29	Annual Principal Addition (Repayment)					2,202	3,111	2,828	1,938	1,522	299	240	(575)	(1,336)
34	Borrowing for Rate Reductions					853	1,649	1,207	173	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	343	1,644	1,718	1,970	1,940
36	Borrowing to Fund Interest					1,349	1,461	1,621	1,765	1,522	299	240	-	-
37	Principle Repayment					-	-	-	-	-	-	-	575	1,336
39	Principle Balance					21,947	23,596	24,803	24,977	24,977	24,977	24,977	24,402	23,066
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					6,617	8,078	9,699	11,464	12,986	13,284	13,524	13,524	13,524
42	Total Debt Balance					28,564	31,675	34,502	36,441	37,962	38,261	38,501	37,926	36,590
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	21,947	23,596	24,803	24,977	24,977	24,977	24,977	24,402	23,066
58	Accumulated Interest Balance	-		-	- -	-	-	-	-	-	5,571	5,243	4,915	4,588
59	Total Debt Balance					21,947	23,596	24,803	24,977	24,977	19,384	18,276	17,127	15,936
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					-	-	-	-	-	1,401	1,321	1,238	1,152
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					-	-	-	-	-	5,571	5,243	4,915	4,588

Debt

Model period ending					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	328	328	328	328	328
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					-	-	-	-	-	1,401	1,321	1,238	1,152
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	575	1,336
Accumulated Interest Repayment	-		-	- -	-	-	-	-	328	328	328	328	328
Interest Paid	-		-	- -	-	-	-	-	-	1,401	1,321	1,238	1,152
Total Debt Service					-	-	-	-	2,513	2,472	2,430	2,387	2,343
Interest Rate Sensitivity Scenario?	-		toggle										
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	-	-	-	-	(2,513)	(2,472)	(2,430)	(2,387)	(2,343)
RPP Cost IR Sensitivity					-	-	-	-	(2,513)	(2,472)	(2,430)	(2,387)	(2,343)

OPG Sensitivity

Public Debt Scenario?	0												
Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Inflation	2.00%	%											
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
31 Dec 2017	-				-	-	-	-	-	-	-	-	-
31 Dec 2018	-				-	-	-	-	-	-	-	-	-
31 Dec 2019	-				-	-	-	-	-	-	-	-	-
31 Dec 2020	-				-	-	-	-	-	-	-	-	-
31 Dec 2021	-				-	-	-	-	-	-	-	-	-
31 Dec 2022	-				-	-	-	-	-	-	-	-	-
31 Dec 2023	-				-	-	-	-	-	-	-	-	-
31 Dec 2024	-				-	-	-	-	-	-	-	-	-
31 Dec 2025	-				-	-	-	-	-	-	-	-	-
31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
125	31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126	31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127	31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128	31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129	31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130	31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131	31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132	31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133	31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134	31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135	31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136	31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137	31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138	31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139	31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140	31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141	31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142	31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143	31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144	31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145	31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146	Total Principal Repayment					-	-	-	-	-	-	-	-	-
147	Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
149	Change in Borrowing due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
150	Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
152	Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
153	Accumulated Interest	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154	Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
156	All-in debt interest rate	5.00%	%											
157	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
159	Year to Start Paying Back	2030	Year											
160	Accumulate Interst?	1		toggle										
161	Accumulated Interest					0	0	0	0	0	0	0	0	0
164	Accumulated Interest	(0)												
165	Year to Finish Paying Back	2047	Year											
166	Year to Start Paying Back	2030	Year											
167	Accumulated Interest Repayment					-	-	-	-	(0)	(0)	(0)	(0)	(0)
171	Year to Start Paying Back	2030	Year											
172	Accumulate Interst?	1		toggle										
173	Interest Paid					-	-	-	-	(0)	(0)	(0)	(0)	(0)
175	Public Debt Scenario?	0												
176	Ratepayer Savings					-	-	-	-	-	-	-	-	-
177	Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
178	Accumulated Interest Repayment	-		-	- -	-	-	-	-	(0)	(0)	(0)	(0)	(0)
179	Interest Paid	-		-	- -	-	-	-	-	(0)	(0)	(0)	(0)	(0)
180	Total Debt Service					-	-	-	-	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
17	Cumulative Principal					11,529	7,607	3,685	(238)	(4,160)	(8,082)	(12,005)	(15,927)	(19,849)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					23,010	24,777	26,434	27,975	29,394	30,685	31,842	32,857	33,723
22	Total Debt					34,540	32,384	30,119	27,737	25,234	22,603	19,837	16,929	13,873
24	Compounded Interest Rate	5.12%												
25	Interest					1,767	1,657	1,541	1,419	1,291	1,156	1,015	866	710
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					24,777	26,434	27,975	29,394	30,685	31,842	32,857	33,723	34,433
29	Annual Principal Addition (Repayment)					(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)	(2,766)	(2,907)	(3,056)
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					1,872	1,767	1,657	1,541	1,419	1,291	1,156	1,015	866
36	Borrowing to Fund Interest					-	-	-	-	-	-	-	-	-
37	Principle Repayment					2,050	2,155	2,265	2,381	2,503	2,631	2,766	2,907	3,056
39	Principle Balance					21,015	18,860	16,595	14,213	11,710	9,079	6,313	3,405	349
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
42	Total Debt Balance					34,540	32,384	30,119	27,737	25,234	22,603	19,837	16,929	13,873
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	21,015	18,860	16,595	14,213	11,710	9,079	6,313	3,405	349
58	Accumulated Interest Balance	-		-	- -	4,260	3,932	3,605	3,277	2,949	2,622	2,294	1,966	1,638
59	Total Debt Balance					14,701	13,420	12,090	10,708	9,273	7,781	6,230	4,616	2,936
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					1,063	970	874	774	670	563	450	334	212
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					4,260	3,932	3,605	3,277	2,949	2,622	2,294	1,966	1,638

Debt

Model period ending						**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
Financial year ending						2035	2036	2037	2038	2039	2040	2041	2042	2043
Model column counter	**Constant**	**Unit**			**Total**	19	20	21	22	23	24	25	26	27
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						328	328	328	328	328	328	328	328	328
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						1,063	970	874	774	670	563	450	334	212
Total Principal Repayment	-		-		- -	2,050	2,155	2,265	2,381	2,503	2,631	2,766	2,907	3,056
Accumulated Interest Repayment	-		-		- -	328	328	328	328	328	328	328	328	328
Interest Paid	-		-		- -	1,063	970	874	774	670	563	450	334	212
Total Debt Service						2,298	2,251	2,204	2,155	2,106	2,054	2,002	1,948	1,892
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-		- -	(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)	(2,002)	(1,948)	(1,892)
RPP Cost IR Sensitivity						(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)	(2,002)	(1,948)	(1,892)
OPG Sensitivity														
Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-			-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

Debt

2	**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter		**Constant**	**Unit**	**Total**	19	20	21	22	23	24	25	26	27
125		31 Dec 2027	-			-	-	-	-	-	-	-	-	-
126		31 Dec 2028	-			-	-	-	-	-	-	-	-	-
127		31 Dec 2029	-			-	-	-	-	-	-	-	-	-
128		31 Dec 2030	-			-	-	-	-	-	-	-	-	-
129		31 Dec 2031	-			-	-	-	-	-	-	-	-	-
130		31 Dec 2032	-			-	-	-	-	-	-	-	-	-
131		31 Dec 2033	-			-	-	-	-	-	-	-	-	-
132		31 Dec 2034	-			-	-	-	-	-	-	-	-	-
133		31 Dec 2035	-			-	-	-	-	-	-	-	-	-
134		31 Dec 2036	-			-	-	-	-	-	-	-	-	-
135		31 Dec 2037	-			-	-	-	-	-	-	-	-	-
136		31 Dec 2038	-			-	-	-	-	-	-	-	-	-
137		31 Dec 2039	-			-	-	-	-	-	-	-	-	-
138		31 Dec 2040	-			-	-	-	-	-	-	-	-	-
139		31 Dec 2041	-			-	-	-	-	-	-	-	-	-
140		31 Dec 2042	-			-	-	-	-	-	-	-	-	-
141		31 Dec 2043	-			-	-	-	-	-	-	-	-	-
142		31 Dec 2044	-			-	-	-	-	-	-	-	-	-
143		31 Dec 2045	-			-	-	-	-	-	-	-	-	-
144		31 Dec 2046	-			-	-	-	-	-	-	-	-	-
145		31 Dec 2047	-			-	-	-	-	-	-	-	-	-
146	Total Principal Repayment					-	-	-	-	-	-	-	-	-
147	Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
148														
149	Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
150	Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
151														
152	Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
153	Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154	Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155														
156	All-in debt interest rate		5.00%	%										
157	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158														
159	Year to Start Paying Back		2030	Year										
160	Accumulate Interst?		1		toggle									
161	Accumulated Interest					0	0	0	0	0	0	0	0	0
162														
163														
164	Accumulated Interest		(0)											
165	Year to Finish Paying Back		2047	Year										
166	Year to Start Paying Back		2030	Year										
167	Accumulated Interest Repayment					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
168														
169														
170														
171	Year to Start Paying Back		2030	Year										
172	Accumulate Interst?		1		toggle									
173	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174														
175	Public Debt Scenario?		0											
176	Ratepayer Savings					-	-	-	-	-	-	-	-	-
177	Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
178	Accumulated Interest Repayment		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
179	Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**Debt**																	
2					**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3																		
4					Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(3,922)	(3,922)	(3,922)	(3,922)	-	-	-	-	-
17					Cumulative Principal					(23,772)	(27,694)	(31,616)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					34,433	34,978	35,351	35,542	35,542	35,542	35,542	35,542	35,542
21																		
22					Total Debt					10,661	7,284	3,734	3	3	3	3	3	4
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					545	373	191	0	0	0	0	0	0
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					34,978	35,351	35,542	35,542	35,542	35,542	35,542	35,542	35,543
28																		
29					Annual Principal Addition (Repayment)					(3,213)	(3,377)	(3,550)	(3,731)	0	0	0	0	0
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					710	545	373	191	-	-	-	-	-
36					Borrowing to Fund Interest					-	-	-	-	0	0	0	0	0
37					Principle Repayment					3,213	3,377	3,550	3,731	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					2,864	3,377	3,550	3,731	-	-	-	-	-
41					Accumulated Interest Balance					10,661	7,284	3,734	3	3	3	3	3	4
42					Total Debt Balance					10,661	7,284	3,734	3	3	3	3	3	4
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	1,311	983	655	328	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					1,311	983	655	328	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					95	71	47	24	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					1,311	983	655	328	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
Financial year ending						2044	2045	2046	2047	2048	2049	2050	2051	2052
Model column counter	**Constant**	**Unit**		**Total**		28	29	30	31	32	33	34	35	36
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						328	328	328	328	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						95	71	47	24	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	-	-	349	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	-	-	328	328	328	328	-	-	-	-	-
Interest Paid	-		-	-	-	95	71	47	24	(0)	(0)	(0)	(0)	(0)
Total Debt Service						1,720	399	375	351	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	(1,720)	(399)	(375)	(351)	0	0	0	0	0
RPP Cost IR Sensitivity						(1,720)	(399)	(375)	(351)	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?		0												
Change in Total System Cost due to Sensitivity		-		-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption		50.00%	%											
Inflation		2.00%	%											
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back		2047	Year											
Year to Start Paying Back		2030	Year											
	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3														
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5														
6	Model column counter		**Constant**	**Unit**	**Total**	28	29	30	31	32	33	34	35	36
125		31 Dec 2027	-			-	-	-	-	-	-	-	-	-
126		31 Dec 2028	-			-	-	-	-	-	-	-	-	-
127		31 Dec 2029	-			-	-	-	-	-	-	-	-	-
128		31 Dec 2030	-			-	-	-	-	-	-	-	-	-
129		31 Dec 2031	-			-	-	-	-	-	-	-	-	-
130		31 Dec 2032	-			-	-	-	-	-	-	-	-	-
131		31 Dec 2033	-			-	-	-	-	-	-	-	-	-
132		31 Dec 2034	-			-	-	-	-	-	-	-	-	-
133		31 Dec 2035	-			-	-	-	-	-	-	-	-	-
134		31 Dec 2036	-			-	-	-	-	-	-	-	-	-
135		31 Dec 2037	-			-	-	-	-	-	-	-	-	-
136		31 Dec 2038	-			-	-	-	-	-	-	-	-	-
137		31 Dec 2039	-			-	-	-	-	-	-	-	-	-
138		31 Dec 2040	-			-	-	-	-	-	-	-	-	-
139		31 Dec 2041	-			-	-	-	-	-	-	-	-	-
140		31 Dec 2042	-			-	-	-	-	-	-	-	-	-
141		31 Dec 2043	-			-	-	-	-	-	-	-	-	-
142		31 Dec 2044	-			-	-	-	-	-	-	-	-	-
143		31 Dec 2045	-			-	-	-	-	-	-	-	-	-
144		31 Dec 2046	-			-	-	-	-	-	-	-	-	-
145		31 Dec 2047	-			-	-	-	-	-	-	-	-	-
146	Total Principal Repayment					-	-	-	-	-	-	-	-	-
147	Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
148														
149	Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
150	Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
151														
152	Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
153	Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154	Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155														
156	All-in debt interest rate		5.00%	%										
157	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158														
159	Year to Start Paying Back		2030	Year										
160	Accumulate Interst?		1		toggle									
161	Accumulated Interest					0	0	0	0	0	0	0	0	0
162														
163														
164	Accumulated Interest		(0)											
165	Year to Finish Paying Back		2047	Year										
166	Year to Start Paying Back		2030	Year										
167	Accumulated Interest Repayment					(0)	(0)	(0)	(0)	-	-	-	-	-
168														
169														
170														
171	Year to Start Paying Back		2030	Year										
172	Accumulate Interst?		1		toggle									
173	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174														
175	Public Debt Scenario?		0											
176	Ratepayer Savings					-	-	-	-	-	-	-	-	-
177	Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
178	Accumulated Interest Repayment		-	-	- -	(0)	(0)	(0)	(0)	-	-	-	-	-
179	Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**Debt**																	
2					**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,543	35,543	35,543	35,543	35,543	35,544	35,544	35,544	35,544
21																		
22					Total Debt					4	4	4	4	5	5	5	5	6
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					0	0	0	0	0	0	0	0	0
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,543	35,543	35,543	35,543	35,544	35,544	35,544	35,544	35,545
28																		
29					Annual Principal Addition (Repayment)					0	0	0	0	0	0	0	0	0
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					0	0	0	0	0	0	0	0	0
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					4	4	4	4	5	5	5	5	6
42					Total Debt Balance					4	4	4	4	5	5	5	5	6
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
2	**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
6	Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1		toggle										
80	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
82	Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
84	Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
89	Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
90	RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
116	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
117	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
118	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
119	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
120	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
121	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
122	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
123	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
124	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**Debt**																	
2					**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**Debt**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1		toggle										
20					Accumulated Interest					35,545	35,545	35,545	35,546	35,546	35,546	35,547	35,547	35,548
21																		
22					Total Debt					6	6	7	7	7	8	8	8	9
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					0	0	0	0	0	0	0	0	0
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,545	35,545	35,546	35,546	35,546	35,547	35,547	35,548	35,548
28																		
29					Annual Principal Addition (Repayment)					0	0	0	0	0	0	0	0	0
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					0	0	0	0	0	0	0	0	0
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					6	6	7	7	7	8	8	8	9
42					Total Debt Balance					6	6	7	7	7	8	8	8	9
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle										
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?		0											
Change in Total System Cost due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption		50.00%	%										
Inflation		2.00%	%										
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
	31 Dec 2017	-			-	-	-	-	-	-	-	-	-
	31 Dec 2018	-			-	-	-	-	-	-	-	-	-
	31 Dec 2019	-			-	-	-	-	-	-	-	-	-
	31 Dec 2020	-			-	-	-	-	-	-	-	-	-
	31 Dec 2021	-			-	-	-	-	-	-	-	-	-
	31 Dec 2022	-			-	-	-	-	-	-	-	-	-
	31 Dec 2023	-			-	-	-	-	-	-	-	-	-
	31 Dec 2024	-			-	-	-	-	-	-	-	-	-
	31 Dec 2025	-			-	-	-	-	-	-	-	-	-
	31 Dec 2026	-			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**Debt**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**Debt**																	
2					**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,548	35,549	35,549	35,550	35,550	35,551	35,551	35,552	35,553
21																		
22					Total Debt					9	10	10	11	11	12	13	13	14
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					0	1	1	1	1	1	1	1	1
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,549	35,549	35,550	35,550	35,551	35,551	35,552	35,553	35,553
28																		
29					Annual Principal Addition (Repayment)					0	0	1	1	1	1	1	1	1
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					0	0	1	1	1	1	1	1	1
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					9	10	10	11	11	12	13	13	14
42					Total Debt Balance					9	10	10	11	11	12	13	13	14
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-	toggle											
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?		0											
Change in Total System Cost due to Sensitivity		-		- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption		50.00%	%										
Inflation		2.00%	%										
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
	31 Dec 2017	-			-	-	-	-	-	-	-	-	-
	31 Dec 2018	-			-	-	-	-	-	-	-	-	-
	31 Dec 2019	-			-	-	-	-	-	-	-	-	-
	31 Dec 2020	-			-	-	-	-	-	-	-	-	-
	31 Dec 2021	-			-	-	-	-	-	-	-	-	-
	31 Dec 2022	-			-	-	-	-	-	-	-	-	-
	31 Dec 2023	-			-	-	-	-	-	-	-	-	-
	31 Dec 2024	-			-	-	-	-	-	-	-	-	-
	31 Dec 2025	-			-	-	-	-	-	-	-	-	-
	31 Dec 2026	-			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**Debt**																	
2					**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Debt**																	
2					**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,553	35,554	35,555	35,556	35,557	35,558	35,559	35,560	35,561
21																		
22					Total Debt					15	15	16	17	18	19	20	21	22
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					1	1	1	1	1	1	1	1	1
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,554	35,555	35,556	35,557	35,558	35,559	35,560	35,561	35,562
28																		
29					Annual Principal Addition (Repayment)					1	1	1	1	1	1	1	1	1
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					1	1	1	1	1	1	1	1	1
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					15	15	16	17	18	19	20	21	22
42					Total Debt Balance					15	15	16	17	18	19	20	21	22
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
2	**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4	Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
6	Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1		toggle										
80	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
82	Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
84	Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
89	Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
90	RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
116	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
117	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
118	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
119	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
120	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
121	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
122	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
123	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
124	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
Model column counter		**Constant**	**Unit**	**Total**	64	65	66	67	68	69	70	71	72
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**Debt**																	
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,562	35,563	35,564	35,565	35,567	35,568	35,570	35,571	35,573
21																		
22					Total Debt					23	24	25	27	28	29	31	33	34
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					1	1	1	1	1	2	2	2	2
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,563	35,564	35,565	35,567	35,568	35,570	35,571	35,573	35,575
28																		
29					Annual Principal Addition (Repayment)					1	1	1	1	1	1	2	2	2
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					1	1	1	1	1	1	2	2	2
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					23	24	25	27	28	29	31	33	34
42					Total Debt Balance					23	24	25	27	28	29	31	33	34
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
2	**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
6	Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1		toggle										
80	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
82	Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
84	Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
89	Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
90	RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
116	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
117	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
118	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
119	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
120	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
121	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
122	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
123	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
124	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**Debt**																	
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**Debt**																	
2					**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3																		
4					Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,575	35,577	35,579	35,581	35,583	35,585	35,587	35,590	35,592
21																		
22					Total Debt					36	38	40	42	44	46	48	51	54
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					2	2	2	2	2	2	2	3	3
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,577	35,579	35,581	35,583	35,585	35,587	35,590	35,592	35,595
28																		
29					Annual Principal Addition (Repayment)					2	2	2	2	2	2	2	2	3
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					2	2	2	2	2	2	2	2	3
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					36	38	40	42	44	46	48	51	54
42					Total Debt Balance					36	38	40	42	44	46	48	51	54
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle										
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0												
Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Inflation	2.00%	%											
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
31 Dec 2017	-				-	-	-	-	-	-	-	-	-
31 Dec 2018	-				-	-	-	-	-	-	-	-	-
31 Dec 2019	-				-	-	-	-	-	-	-	-	-
31 Dec 2020	-				-	-	-	-	-	-	-	-	-
31 Dec 2021	-				-	-	-	-	-	-	-	-	-
31 Dec 2022	-				-	-	-	-	-	-	-	-	-
31 Dec 2023	-				-	-	-	-	-	-	-	-	-
31 Dec 2024	-				-	-	-	-	-	-	-	-	-
31 Dec 2025	-				-	-	-	-	-	-	-	-	-
31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
Model column counter		**Constant**	**Unit**	**Total**	82	83	84	85	86	87	88	89	90
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**Debt**																	
2					**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,595	35,598	35,601	35,604	35,608	35,611	35,615	35,619	35,623
21																		
22					Total Debt					56	59	62	65	69	72	76	80	84
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					3	3	3	3	4	4	4	4	4
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,598	35,601	35,604	35,608	35,611	35,615	35,619	35,623	35,627
28																		
29					Annual Principal Addition (Repayment)					3	3	3	3	3	4	4	4	4
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					3	3	3	3	3	4	4	4	4
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					56	59	62	65	69	72	76	80	84
42					Total Debt Balance					56	59	62	65	69	72	76	80	84
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
Financial year ending						2107	2108	2109	2110	2111	2112	2113	2114	2115
Model column counter	**Constant**	**Unit**			**Total**	91	92	93	94	95	96	97	98	99
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-		-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-		-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-		-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-		-	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-		-		-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**Debt**																	
2					**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL
1	**Debt**																
2					**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3																	
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107
11																	
12	**ENERGY Base Case**																
13					All-in debt interest rate	5.00%	%										
14					Compounded Interest Rate	5.12%											
15																	
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																	
19					Accumulate Interst?	1	toggle										
20					Accumulated Interest					35,627	35,632	35,636	35,641	35,647	35,652	35,658	35,664
21																	
22					Total Debt					88	93	97	102	108	113	119	125
23																	
24					Compounded Interest Rate	5.12%											
25					Interest					5	5	5	5	6	6	6	6
26										-	-	-	-	-	-	-	-
27					Cumulative Interest					35,632	35,636	35,641	35,647	35,652	35,658	35,664	35,670
28																	
29					Annual Principal Addition (Repayment)					4	5	5	5	5	6	6	6
30																	
31																	
32																	
33																	
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					4	5	5	5	5	6	6	6
37					Principle Repayment					-	-	-	-	-	-	-	-
38																	
39					Principle Balance					-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					88	93	97	102	108	113	119	125
42					Total Debt Balance					88	93	97	102	108	113	119	125
43																	
44																	
45					Interest Rate Sensitivity Scenario?	-	toggle										
46						(3,922)											
47						13											
48						2,028											
49						34,502											
50										-	-	-	-	-	-	-	-
51																	
52	**IR Sensitivity**																
53					Interest Rate Sensitivity Scenario?	-	toggle										
54					Year to Finish Paying Back	2047	Year										
55					Year to Start Paying Back	2030	Year										
56					Principal to be Repaid	24,977											
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																	
61					Interest Rate Sensitivity	-	%										
62					Compounded Interest Rate	0.00%											
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																	
65					Year to Start Paying Back	2030	Year										
66					Accumulate Interst?	1		toggle									
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

2	**Model period ending**						**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
4	Financial year ending						2116	2117	2118	2119	2120	2121	2122	2123
6	Model column counter	**Constant**	**Unit**		**Total**		100	101	102	103	104	105	106	107
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment						-	-	-	-	-	-	-	-
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1		toggle										
80	Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
82	Total Principal Repayment	-		-	-	-	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-		-	-	-	-	-	-	-	-	-	-	-
84	Interest Paid	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-
89	Total Debt Service	-		-	-	-	0	0	0	0	0	0	0	0
90	RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-					-	-	-	-	-	-	-	-
116	31 Dec 2018	-					-	-	-	-	-	-	-	-
117	31 Dec 2019	-					-	-	-	-	-	-	-	-
118	31 Dec 2020	-					-	-	-	-	-	-	-	-
119	31 Dec 2021	-					-	-	-	-	-	-	-	-
120	31 Dec 2022	-					-	-	-	-	-	-	-	-
121	31 Dec 2023	-					-	-	-	-	-	-	-	-
122	31 Dec 2024	-					-	-	-	-	-	-	-	-
123	31 Dec 2025	-					-	-	-	-	-	-	-	-
124	31 Dec 2026	-					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL
1	**Debt**																
2					**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3																	
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123
5																	
6					Model column counter		**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107
125						31 Dec 2027	-				-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-
148																		
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-
151																		
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																		
156					All-in debt interest rate		5.00%	%										
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																		
159					Year to Start Paying Back		2030	Year										
160					Accumulate Interst?		1		toggle									
161					Accumulated Interest						0	0	0	0	0	0	0	0
162																		
163																		
164					Accumulated Interest		(0)											
165					Year to Finish Paying Back		2047	Year										
166					Year to Start Paying Back		2030	Year										
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-
168																		
169																		
170																		
171					Year to Start Paying Back		2030	Year										
172					Accumulate Interst?		1		toggle									
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																		
175					Public Debt Scenario?		0											
176					Ratepayer Savings						-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Bill Impact

Model period ending						**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
Financial year ending						2017	2018	2019	2020	2021	2022	2023	2024
Model column counter	**Constant**	**Unit**		**Total**		1	2	3	4	5	6	7	8
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	143	143	142	142	142	142	142	142
Base Residential Demand						72	72	71	71	71	71	71	71
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	143	143	142	142	142	142	142	142
Residential Demand Sensitivity						72	72	71	71	71	71	71	71
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
ENERGY Scenario Bill Increase (Savings)						-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
ENERGY Bill Reduction %						-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
IR Sensitivity Bill Increase (Savings)						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
IR Sensitivity Bill Reduction %						0%	0%	0%	0%	0%	0%	0%	0%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	-	-	-	-	-	-	-	-
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
OPG Sensitivity Bill Impact						-	-	-	-	-	-	-	-
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
OPG Sensitivity Bill Reduction %						-	-	-	-	-	-	-	-
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
Total Debt Service	-		-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	72	72	71	71	71	71	71	71
Bill Impact after Change in Demand						-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
Change in Demand Bill Reduction %						-17.18%	-16.94%	-16.73%	-19.35%	-16.94%	-14.11%	-10.18%	-14.13%
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	(26)	(26)	(26)	(32)	(28)	(24)	(18)	(25)
ENERGY Bill Reduction						126	129	131	135	138	145	156	151
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
3																	
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					153	155	158	168	166	169	174	176
70																	
71					ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					126	129	131	135	138	145	156	151
74																	
75					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
76					Bill Impact after Change in Demand	-	-	-	-	-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
77					Bill Reduction after Change in Demand					126	129	131	135	138	145	156	151
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
87					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	126	129	131	135	138	145	191	193
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
97					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	126	129	131	135	138	185	189	191
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
103																	
104					Record Here												
105					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
106					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
107					20% ENERGY Bill Reduction					134	137	140	144	146	154	165	161
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
112					IR Sensitivity Bill	-	-	-	-	153	155	158	168	166	169	174	176
113																	
114					Record Here												
115					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
116					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
117					7% Interest Rate					126	129	131	135	138	145	156	151
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
122					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
3																	
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
125					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
126					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
127					30% BP Cost Increase					126	129	131	135	138	145	156	151
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
132					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
133																	
134					Record Here												
135					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
136					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
137					High Gas Price					126	129	131	135	138	145	156	151
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
142					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
143																	
144					Record Here												
145					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
146					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
147					Federal Carbon Prices					126	129	131	135	138	145	156	151
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
151	hario6 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
152					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
153																	
154					Record Here												
155					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
156					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
157					66.7 cent CAD					126	129	131	135	138	145	156	151
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
162					Bill Reduction after Change in Demand	-	-	-	-	126	129	131	135	138	145	156	151
163																	
164					Record Here												
165					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
166					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
167					Low Demand					126	129	131	134	137	144	155	150
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
172					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
173																	
174					Record Here												
175					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
176					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
177					Very High Gas Price					126	129	131	135	138	145	156	151
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
3																	
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
186					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
187					Feb 27 Ministry Scenario	-	-	-	-	126	129	131	135	138	149	165	165
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
196					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	126	129	131	135	138	149	165	165
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
202					Bill Reduction after Change in Demand	-	-	-	-	126	129	131	135	138	145	156	151
203																	
204					Record Here												
205					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
206					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
207					High Demand					127	129	132	136	139	147	157	153
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
216					6 Years Savings / 25 Year Amortization					-17%	-17%	-17%	-19%	-17%	-14%	10%	10%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
224					5 Years Savings / 21 Year Amortization					-17%	-17%	-17%	-19%	-17%	9%	9%	8%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
232					ENERGY 20% Bill Reduction					-12%	-12%	-12%	-14%	-12%	-9%	-5%	-9%
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
		Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
		Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
		ENERGY 25 % Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		7% Interest Rate Sensitivity					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	BP 30%													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 8, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		BP 30% Cost Increase					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 4, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		High Gas Price					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Federal CO2 Prices													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 5, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Federal Carbon Prices					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Low CAD													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 6, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		66.7 cent CAD					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Low Demand													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 11, record below		Change in Demand Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Low Demand					-17%	-17%	-17%	-20%	-18%	-15%	-11%	-15%
	Double High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario12, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Very High Gas Price					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Feb 27 Ministry Scenario													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 13, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%

Bill Impact

		Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
		Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
		Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
		Feb 27 Ministry Scenario					-17%	-17%	-17%	-19%	-17%	-12%	-5%	-7%
	Feb 27 Ministry Scenario 7% IR													
	cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Feb 27 Ministry Scenario 7% IR					-17%	-17%	-17%	-19%	-17%	-12%	-5%	-7%
	High Demand													
	cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		High Demand					-17%	-17%	-16%	-19%	-16%	-13%	-9%	-13%
	Debt Cash Flows													
	CF Base Case													
		Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
		Interest					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest	-		-	-	-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions	-		-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA	-		-	-	(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
		Record Here												
		Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
		Interest ($35.7B total)					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest ($13.5B total)					-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions ($25.0B total)					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA					(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt ($38.5B total)					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
	CF Feb 27													
		Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
		Interest					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest	-		-	-	-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions	-		-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA	-		-	-	(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
		Record Here												
		Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
		Interest ($20.7B total)					-	(128)	(263)	(404)	(582)	(748)	(882)	(972)
		Borrowing to Fund Interest ($3.9B total)					-	128	263	404	582	748	882	972
		Borrowing for Rate Reductions ($17.1B total)					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093
		Change in GA					(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(1,874)	(868)	(1,093)
		Total New Debt ($21.9B total)					2,501	2,636	2,764	3,479	3,242	2,622	1,750	2,064
	Balances													
	Balances - Base Case													
		Principle Balance	-		-	-	2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
		Accumulated Interest Balance	-		-	-	-	128	391	795	1,377	2,125	3,027	4,061
		Record Here												
		Debt Balance - Funding for Rate Reductions					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539

Bill Impact

Model period ending						**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
Financial year ending						2017	2018	2019	2020	2021	2022	2023	2024
Model column counter	**Constant**	**Unit**		**Total**		1	2	3	4	5	6	7	8
Debt Balance - Funding for Interest						-	128	391	795	1,377	2,125	3,027	4,061
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	-	-
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Debt Balance - Funding for Interest						-	181	556	1,139	1,986	3,087	4,431	5,994
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	128	391	795	1,377	2,125	3,027	4,061
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,118	15,986	17,078
Debt Balance - Funding for Interest						-	128	391	795	1,377	2,125	3,007	3,979
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	-	-
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,118	15,986	17,078
Debt Balance - Funding for Interest						-	181	556	1,139	1,986	3,087	4,403	5,877

				ENERGY 25% Bill Reduction			Feb 27 Ministry Scenario		
	ENERGY Base	IR Sensitivity	4%	5%	7%	4%	5%	7%	
Total Borrowing for Rate Reductions	24,977	24,977	24,977	24,977	24,977	17,078	17,078	17,078	
Total Borrowing to Fund Interest	13,524	20,775	10,121	13,524	20,775	3,922	4,842	7,537	
Total Debt	38,501	45,751	35,098	38,501	45,751	21,001	21,920	24,615	
Total Interest Paid (Cost for Deferral Program)	35,664	28,660	23,162	35,664	51,230	14,060	20,654	28,660	

Bill Impact

	Model period ending					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
	Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
	Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
	RPP Share of Consumption	50.00%	%										
	Base Electricity Demand	-		-	- -	142	141	142	142	142	143	143	144
	Base Residential Demand					71	71	71	71	71	72	72	72
	RPP Share of Consumption	50.00%	%										
	Total Electricity Demand	-		-	- -	142	141	142	142	142	143	143	144
	Residential Demand Sensitivity					71	71	71	71	71	72	72	72
ENERGY BASE													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	1,555	853	1,649	1,207	173	(343)	(1,644)	(1,718)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	ENERGY Scenario Bill Increase (Savings)					-16.43	-9.08	-17.42	-12.75	-1.83	3.59	17.24	17.89
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	ENERGY Bill Reduction %					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
IR Sensitivity													
	Average Household Demand	0.75	MWh										
	RPP Cost IR Sensitivity	-		-	- -	-	-	-	-	-	(2,513)	(2,472)	(2,430)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	26.36	25.93	25.31
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	14%	13%	13%
OPG SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Total Debt Service	-		-	- -	-	-	-	-	-	(0)	(0)	(0)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	OPG Sensitivity Bill Impact					-	-	-	-	-	(0.00)	(0.00)	(0.00)
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	OPG Sensitivity Bill Reduction %					-	-	-	-	-	-0.00%	-0.00%	-0.00%
	Sensitivity Incremental to Ministry Scenario?	0	toggle										
	OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	1,555	853	1,649	1,207	173	(343)	(1,644)	(1,718)
	Total Debt Service	-		-	- -	-	-	-	-	-	(0)	(0)	(0)
	RPP Share of Consumption	50.00%	%										
	Residential Demand Sensitivity	-		-	- -	71	71	71	71	71	72	72	72
	Bill Impact after Change in Demand					-16.43	-9.08	-17.42	-12.75	-1.83	18.20	18.20	18.08
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	Change in Demand Bill Reduction %					-8.88%	-5.03%	-9.17%	-6.70%	-0.97%	9.49%	9.37%	9.20%
TOTAL BILLS													
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	ENERGY Scenario Bill Increase (Savings)	-		-	- -	(16)	(9)	(17)	(13)	(2)	4	17	18
	ENERGY Bill Reduction					169	171	172	178	188	195	212	214
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	26	26	25
69					IR Sensitivity Bill					185	181	190	190	190	218	220	222
70																	
71					ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	(0.00)	(0.00)	(0.00)
73					OPG Sensitivity Bill					169	171	172	178	188	210	213	215
74																	
75					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
76					Bill Impact after Change in Demand	-	-	-	-	-16.43	-9.08	-17.42	-12.75	-1.83	18.20	18.20	18.08
77					Bill Reduction after Change in Demand					169	171	172	178	188	210	213	215
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
87					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	202	197	206	206	205	206	208	210
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
97					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	199	195	203	204	202	204	206	208
99																	
100	**20% Bill Reduction Chart**															-	-
101					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
103																	
104					Record Here												
105					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
106					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
107					20% ENERGY Bill Reduction					178	181	182	188	198	206	214	216
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
112					IR Sensitivity Bill	-	-	-	-	185	181	190	190	190	218	220	222
113																	
114					Record Here												
115					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
116					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
117					7% Interest Rate					169	171	172	178	188	254	255	254
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
122					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
125					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
126					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
127					30% BP Cost Increase					169	171	172	178	188	207	223	227
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
132					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
133																	
134					Record Here												
135					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
136					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
137					High Gas Price					169	171	172	178	188	200	217	220
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
142					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
143																	
144					Record Here												
145					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
146					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
147					Federal Carbon Prices					169	171	172	178	188	197	213	216
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
152					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
153																	
154					Record Here												
155					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
156					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
157					66.7 cent CAD					169	171	172	178	188	197	213	217
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
162					Bill Reduction after Change in Demand	-	-	-	-	169	171	172	178	188	210	213	215
163																	
164					Record Here												
165					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
166					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
167					Low Demand					167	171	171	177	188	199	217	220
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
172					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
173																	
174					Record Here												
175					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
176					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
177					Very High Gas Price					169	171	172	178	188	205	222	225
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
186					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
187					Feb 27 Ministry Scenario	-	-	-	-	187	196	203	209	208	210	213	215
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	169	171	172	178	188	195	212	214
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
196					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	187	196	203	209	208	210	213	215
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
202					Bill Reduction after Change in Demand	-	-	-	-	169	171	172	178	188	210	213	215
203																	
204					Record Here												
205					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
206					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
207					High Demand					170	172	175	179	188	192	205	208
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
216					6 Years Savings / 25 Year Amortization					9%	9%	8%	8%	8%	8%	7%	7%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
224					5 Years Savings / 21 Year Amortization					8%	8%	7%	7%	7%	6%	6%	6%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
232					ENERGY 20% Bill Reduction					-4%	0%	-4%	-1%	4%	7%	10%	10%
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	14%	13%	13%
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
		Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
		Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
		ENERGY 25 % Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		7% Interest Rate Sensitivity					-9%	-5%	-9%	-7%	-1%	32%	31%	29%
	BP 30%													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
enario 8, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		BP 30% Cost Increase					-9%	-5%	-9%	-7%	-1%	8%	15%	15%
	High Gas Price													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
enario 4, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		High Gas Price					-9%	-5%	-9%	-7%	-1%	4%	12%	12%
	Federal CO2 Prices													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
enario 5, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Federal Carbon Prices					-9%	-5%	-9%	-7%	-1%	3%	10%	10%
	Low CAD													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
enario 6, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		66.7 cent CAD					-9%	-5%	-9%	-7%	-1%	3%	10%	10%
	Low Demand													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
enario 11, record below		Change in Demand Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	9%	9%	9%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Low Demand					-9%	-5%	-10%	-7%	-1%	4%	11%	12%
	Double High Gas Price													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
nario12, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Very High Gas Price					-9%	-5%	-9%	-7%	-1%	7%	14%	15%
	Feb 27 Ministry Scenario													
cenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
nario 13, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
296					Feb 27 Ministry Scenario					1%	9%	7%	10%	10%	9%	9%	9%
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	14%	13%	13%
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
304					Feb 27 Ministry Scenario 7% IR					12%	14%	12%	14%	14%	14%	13%	13%
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-9%	-5%	-9%	-7%	-1%	9%	9%	9%
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
312					High Demand					-8%	-4%	-8%	-6%	-1%	-0%	6%	6%
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
318					Borrowing to Fund Interest	-		-	-	1,207	1,349	1,461	1,621	1,765	1,522	299	240
319					Borrowing for Rate Reductions	-		-	-	1,555	853	1,649	1,207	173	-	-	-
320					Change in GA	-		-	-	(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
321					Total New Debt					2,763	2,202	3,111	2,828	1,938	1,522	299	240
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
326					Borrowing to Fund Interest ($13.5B total)					1,207	1,349	1,461	1,621	1,765	1,522	299	240
327					Borrowing for Rate Reductions ($25.0B total)					1,555	853	1,649	1,207	173	-	-	-
328					Change in GA					(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
329					Total New Debt ($38.5B total)					2,763	2,202	3,111	2,828	1,938	1,522	299	240
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
334					Borrowing to Fund Interest	-		-	-	1,207	1,349	1,461	1,621	1,765	1,522	299	240
335					Borrowing for Rate Reductions	-		-	-	1,555	853	1,649	1,207	173	-	-	-
336					Change in GA	-		-	-	(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
337					Total New Debt					2,763	2,202	3,111	2,828	1,938	1,522	299	240
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	(343)	(160)	(640)	(672)	(707)	(743)	(781)
341					Interest ($20.7B total)					(1,077)	(1,121)	(1,104)	(1,096)	(1,063)	(1,029)	(992)	(954)
342					Borrowing to Fund Interest ($3.9B total)					863	-	-	-	-	-	-	-
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					215	1,464	1,264	1,736	1,736	1,736	1,736	1,736
345					Total New Debt ($21.9B total)					863	-	-	-	-	-	-	-
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
350					Accumulated Interest Balance	-		-	-	5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977

Bill Impact

Model period ending						**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
Financial year ending						2025	2026	2027	2028	2029	2030	2031	2032
Model column counter	**Constant**	**Unit**		**Total**		9	10	11	12	13	14	15	16
Debt Balance - Funding for Interest						5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	5,571	5,243
Record Here													
Debt Balance - Funding for Rate Reductions						21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
Debt Balance - Funding for Interest						7,839	9,931	12,235	14,826	17,690	20,775	19,621	18,466
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
Accumulated Interest Balance	-	-	-	-		5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
Record Here													
Debt Balance - Funding for Rate Reductions						17,078	16,735	16,576	15,936	15,263	14,557	13,814	13,032
Debt Balance - Funding for Interest						4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	5,571	5,243
Record Here													
Debt Balance - Funding for Rate Reductions						17,078	16,735	16,576	15,936	15,263	14,557	13,814	13,032
Debt Balance - Funding for Interest						7,537	7,209	6,881	6,554	6,226	5,898	5,571	5,243

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

Model period ending						**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
Financial year ending						2033	2034	2035	2036	2037	2038	2039	2040
Model column counter	**Constant**	**Unit**		**Total**		17	18	19	20	21	22	23	24
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	145	146	148	149	149	150	150	151
Base Residential Demand						73	73	74	74	75	75	75	76
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	145	146	148	149	149	150	150	151
Residential Demand Sensitivity						73	73	74	74	75	75	75	76
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(2,544)	(3,277)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
Base Residential Demand	-		-	-	-	73	73	74	74	75	75	75	76
ENERGY Scenario Bill Increase (Savings)						26.32	33.66	39.75	39.59	39.42	39.26	39.10	38.94
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201
ENERGY Bill Reduction %						13%	17%	20%	20%	20%	20%	20%	19%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	(2,387)	(2,343)	(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)
Base Residential Demand	-		-	-	-	73	73	74	74	75	75	75	76
IR Sensitivity Bill Increase (Savings)						24.69	24.07	23.29	22.72	22.15	21.58	20.99	20.39
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201
IR Sensitivity Bill Reduction %						12%	12%	12%	11%	11%	11%	10%	10%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Base Residential Demand	-		-	-	-	73	73	74	74	75	75	75	76
OPG Sensitivity Bill Impact						(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201
OPG Sensitivity Bill Reduction %						-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(2,544)	(3,277)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	73	73	74	74	75	75	75	76
Bill Impact after Change in Demand						17.95	17.83	17.59	17.52	17.44	17.37	17.30	17.23
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201
Change in Demand Bill Reduction %						9.04%	8.91%	8.93%	8.86%	8.78%	8.71%	8.64%	8.57%
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	26	34	40	40	39	39	39	39
ENERGY Bill Reduction						225	234	237	237	238	239	239	240
ENERGY Base Residential Bill	-		-	-	-	199	200	197	198	199	199	200	201

Bill Impact

		Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
		IR Sensitivity Bill Increase (Savings)	-		-	- -	25	24	23	23	22	22	21	20
		IR Sensitivity Bill					223	224	220	221	221	221	221	221
		ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		OPG Sensitivity Bill Impact	-		-	- -	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
		OPG Sensitivity Bill					217	218	215	215	216	217	218	218
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		Bill Impact after Change in Demand	-		-	- -	17.95	17.83	17.59	17.52	17.44	17.37	17.30	17.23
		Bill Reduction after Change in Demand					217	218	215	215	216	217	218	218
	BILL CHARTS														
	25% Reduction/6 Year Reduction Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
	enario 10 Record below	OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		6 Year Bill Reduction / 25 Year Amortization	-		-	- -	212	213	209	209	210	210	211	211
	25% Reduction/5 Year Reduction Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
	enario 7 Record below	OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		5 Year Bill Reduction / 21 Year Amortization	-		-	- -	210	211	207	207	208	208	209	209
	20% Bill Reduction Chart						-	-	-	-	-	-	-	
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 2, record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		Record Here													
		ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
		20% ENERGY Bill Reduction					218	220	216	217	218	218	219	220
	IR Sensitivity Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ario 9, Record all below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		IR Sensitivity Bill	-		-	- -	223	224	220	221	221	221	221	221
		Record Here													
		ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
		7% Interest Rate					254	253	247	246	245	243	242	241
	Generator Cost Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ario 8 Record all below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													

	A	B	C	D	E	F	G	H	I	Z	AA	AB	AC	AD	AE	AF	AG
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
3																	
4					Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
125					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
126					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
127					30% BP Cost Increase					238	247	251	252	254	255	257	258
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
132					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
133																	
134					Record Here												
135					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
136					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
137					High Gas Price					231	240	243	244	245	246	247	248
138														6.99	7.36	7.76	8.21
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
142					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
143																	
144					Record Here												
145					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
146					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
147					Federal Carbon Prices					226	235	238	239	239	240	241	241
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
152					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
153																	
154					Record Here												
155					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
156					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
157					66.7 cent CAD					227	236	239	240	241	241	242	243
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
162					Bill Reduction after Change in Demand	-	-	-	-	217	218	215	215	216	217	218	218
163																	
164					Record Here												
165					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
166					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
167					Low Demand					231	241	245	246	246	247	248	249
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
172					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
173																	
174					Record Here												
175					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
176					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
177					Very High Gas Price					236	246	249	251	252	253	255	257
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240

	A	B	C	D	E	F	G	H	I	Z	AA	AB	AC	AD	AE	AF	AG
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
3																	
4					Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
182				enario 13 Record below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
186					25% ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
187					Feb 27 Ministry Scenario	-	-	-	-	217	218	215	215	216	217	218	218
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
191				enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
192				enario 14 Record below	IR Sensitivity Bill	-	-	-	-	225	234	237	237	238	239	239	240
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
196					25% ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	217	218	215	215	216	217	218	218
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
201				rio 15 Record all below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
202					Bill Reduction after Change in Demand	-	-	-	-	217	218	215	215	216	217	218	218
203																	
204					Record Here												
205					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
206					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
207					High Demand					216	223	224	225	225	225	226	226
208																	
209	**% of Bill**																
210				**25% Reduction/6 Year Reduction Chart**													
211				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
212				nario 10, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
216					6 Years Savings / 25 Year Amortization					7%	6%	6%	6%	6%	5%	5%	5%
217																	
218				**25% Reduction/5 Year Reduction Chart**													
219				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
220				enario 7, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
224					5 Years Savings / 21 Year Amortization					6%	5%	5%	5%	5%	4%	4%	4%
225																	
226				**20% Reduction**													
227				enario 2, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
232					ENERGY 20% Bill Reduction					10%	10%	10%	10%	10%	10%	9%	9%
233																	
234				**7% Interest Rate**													
235					ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
236					IR Sensitivity Bill Reduction %	-	-	-	-	12%	12%	12%	11%	11%	11%	10%	10%
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
		ENERGY 25 % Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		7% Interest Rate Sensitivity					28%	27%	26%	24%	23%	22%	21%	20%
	BP 30%														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		BP 30% Cost Increase					20%	24%	27%	28%	28%	28%	28%	28%
	High Gas Price														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		High Gas Price					16%	20%	23%	23%	23%	23%	23%	23%
	Federal CO2 Prices														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Federal Carbon Prices					14%	17%	21%	21%	20%	20%	20%	20%
	Low CAD														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		66.7 cent CAD					14%	18%	21%	21%	21%	21%	21%	21%
	Low Demand														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	9%	9%	9%	9%	9%	9%	9%	9%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Low Demand					16%	20%	24%	24%	24%	24%	24%	24%
	Double High Gas Price														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Very High Gas Price					19%	23%	27%	27%	27%	27%	27%	28%
	Feb 27 Ministry Scenario														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%

Bill Impact

		Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
296		Feb 27 Ministry Scenario					9%	9%	9%	9%	9%	9%	9%	9%
298	**Feb 27 Ministry Scenario 7% IR**													
299	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
300	nario 14, record below	IR Sensitivity Bill Reduction %	-	-	-	-	12%	12%	12%	11%	11%	11%	10%	10%
302		Record Here												
303		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
304		Feb 27 Ministry Scenario 7% IR					12%	12%	12%	11%	11%	11%	10%	10%
306	**High Demand**													
307	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
308	nario 15, record below	Change in Demand Bill Reduction %	-	-	-	-	9%	9%	9%	9%	9%	9%	9%	9%
310		Record Here												
311		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
312		High Demand					9%	11%	14%	14%	13%	13%	13%	13%
314	**Debt Cash Flows**													
315	**CF Base Case**													
316		Principle Repayment	-	-	-	-	(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
317		Interest					(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
318		Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	-
319		Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
320		Change in GA	-	-	-	-	2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
321		Total New Debt					-	-	-	-	-	-	-	-
323		Record Here												
324		Principle Repayment ($38.5B total)					(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
325		Interest ($35.7B total)					(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
326		Borrowing to Fund Interest ($13.5B total)					-	-	-	-	-	-	-	-
327		Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328		Change in GA					2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
329		Total New Debt ($38.5B total)					-	-	-	-	-	-	-	-
331	**CF Feb 27**													
332		Principle Repayment	-	toggle		-	-	(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
333		Interest						(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
334		Borrowing to Fund Interest	-		-	-	-	-	-	-	-	-	-	-	-
335		Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-	-
336		Change in GA	-		-	-	-	2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
337		Total New Debt						-	-	-	-	-	-	-	-
339		Record Here												
340		Principle Repayment ($21.9B total)						(821)	(863)	(907)	(954)	(1,002)	(1,054)	(1,108)	(1,164)
341		Interest ($20.7B total)						(914)	(872)	(828)	(782)	(733)	(682)	(628)	(571)
342		Borrowing to Fund Interest ($3.9B total)						-	-	-	-	-	-	-	-
343		Borrowing for Rate Reductions ($17.1B total)						-	-	-	-	-	-	-	-
344		Change in GA						1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736
345		Total New Debt ($21.9B total)						-	-	-	-	-	-	-	-
347	**Balances**													
348	**Balances - Base Case**													
349		Principle Balance	-		-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
350		Accumulated Interest Balance	-		-	-	-	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
351		Record Here													
352		Debt Balance - Funding for Rate Reductions						24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079

Bill Impact

2		**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
4		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
6		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
353		Debt Balance - Funding for Interest					13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
357		Accumulated Interest Balance	-	-	-	-	4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
360		Debt Balance - Funding for Interest					17,312	16,158	15,004	13,850	12,696	11,541	10,387	9,233
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
364		Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					12,211	11,348	10,441	9,488	8,485	7,432	6,324	5,160
367		Debt Balance - Funding for Interest					4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
371		Accumulated Interest Balance	-	-	-	-	4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					12,211	11,348	10,441	9,488	8,485	7,432	6,324	5,160
374		Debt Balance - Funding for Interest					4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

Model period ending						**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
Financial year ending						2041	2042	2043	2044	2045	2046	2047	2048
Model column counter	**Constant**	**Unit**		**Total**		25	26	27	28	29	30	31	32
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	152	152	153	154	154	155	156	156
Base Residential Demand						76	76	77	77	77	77	78	78
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	152	152	153	154	154	155	156	156
Residential Demand Sensitivity						76	76	77	77	77	77	78	78
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	-
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
ENERGY Scenario Bill Increase (Savings)						38.77	38.61	38.45	38.29	38.14	37.98	37.82	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
ENERGY Bill Reduction %						19%	19%	19%	19%	19%	18%	18%	0%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	(2,002)	(1,948)	(1,892)	(1,720)	(399)	(375)	(351)	0
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
IR Sensitivity Bill Increase (Savings)						19.79	19.18	18.55	16.79	3.88	3.63	3.39	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
IR Sensitivity Bill Reduction %						10%	9%	9%	8%	2%	2%	2%	0%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
OPG Sensitivity Bill Impact						(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
OPG Sensitivity Bill Reduction %						-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	-
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	76	76	77	77	77	77	78	78
Bill Impact after Change in Demand						17.16	17.09	17.01	16.94	16.87	16.80	16.73	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
Change in Demand Bill Reduction %						8.50%	8.43%	8.36%	8.29%	8.22%	8.15%	8.09%	-0.00%
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	39	39	38	38	38	38	38	-
ENERGY Bill Reduction						241	241	242	243	243	244	245	208
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	20	19	19	17	4	4	3	(0)
69					IR Sensitivity Bill					222	222	222	221	209	210	210	208
70																	
71					ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
72					OPG Sensitivity Bill Impact	-	-	-	-	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
73					OPG Sensitivity Bill					219	220	221	221	222	223	224	208
74																	
75					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
76					Bill Impact after Change in Demand	-	-	-	-	17.16	17.09	17.01	16.94	16.87	16.80	16.73	0.00
77					Bill Reduction after Change in Demand					219	220	221	221	222	223	224	208
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
87					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	211	212	212	213	213	214	214	208
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
97					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	210	210	204	204	205	206	207	208
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
103																	
104					Record Here												
105					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
106					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
107					20% ENERGY Bill Reduction					221	221	222	223	224	225	225	208
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
112					IR Sensitivity Bill	-	-	-	-	222	222	222	221	209	210	210	208
113																	
114					Record Here												
115					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
116					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
117					7% Interest Rate					240	238	237	236	235	234	233	208
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
122					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
125					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
126					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
127					30% BP Cost Increase					260	262	264	267	270	275	285	208
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
132					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
133																	
134					Record Here												
135					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
136					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
137					High Gas Price					249	251	252	254	256	258	263	208
138										8.73	9.32	10.04	10.96	12.23	14.22	18.50	(0.00)
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
142					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
143																	
144					Record Here												
145					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
146					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
147					Federal Carbon Prices					242	243	243	244	245	246	247	208
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
152					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
153																	
154					Record Here												
155					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
156					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
157					66.7 cent CAD					244	245	246	247	248	249	252	208
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
162					Bill Reduction after Change in Demand	-	-	-	-	219	220	221	221	222	223	224	208
163																	
164					Record Here												
165					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
166					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
167					Low Demand					250	251	252	253	254	255	258	208
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
172					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
173																	
174					Record Here												
175					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
176					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
177					Very High Gas Price					258	260	262	265	268	273	282	208
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
186					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
187					Feb 27 Ministry Scenario	-	-	-	-	219	220	221	221	222	223	224	208
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	241	241	242	243	243	244	245	208
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
196					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	219	220	221	221	222	223	224	208
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
202					Bill Reduction after Change in Demand	-	-	-	-	219	220	221	221	222	223	224	208
203																	
204					Record Here												
205					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
206					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
207					High Demand					227	227	227	227	227	227	225	207
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
216					6 Years Savings / 25 Year Amortization					5%	5%	4%	4%	4%	4%	3%	0%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
224					5 Years Savings / 21 Year Amortization					4%	4%	0%	0%	0%	0%	0%	0%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
232					ENERGY 20% Bill Reduction					9%	9%	9%	9%	9%	9%	9%	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	10%	9%	9%	8%	2%	2%	2%	-0%
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
239					ENERGY 25 % Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
240					7% Interest Rate Sensitivity					19%	18%	17%	15%	14%	13%	12%	0%
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
248					BP 30% Cost Increase					29%	29%	30%	30%	32%	33%	38%	0%
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
256					High Gas Price					24%	24%	24%	24%	25%	25%	27%	-0%
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
264					Federal Carbon Prices					20%	20%	19%	19%	19%	19%	19%	-0%
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
272					66.7 cent CAD					21%	21%	21%	21%	21%	21%	22%	0%
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	8%	8%	8%	8%	8%	8%	8%	-0%
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
280					Low Demand					24%	24%	24%	24%	24%	24%	25%	0%
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
288					Very High Gas Price					28%	28%	29%	30%	31%	32%	36%	-0%
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-

Bill Impact

		Model period ending					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
		Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
		Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
		Feb 27 Ministry Scenario					8%	8%	8%	8%	8%	8%	8%	-
	Feb 27 Ministry Scenario 7% IR													
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
	nario 14, record below	IR Sensitivity Bill Reduction %	-	-	-	-	10%	9%	9%	8%	2%	2%	2%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
		Feb 27 Ministry Scenario 7% IR					10%	9%	9%	8%	2%	2%	2%	-0%
	High Demand													
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
	enario 15, record below	Change in Demand Bill Reduction %	-	-	-	-	8%	8%	8%	8%	8%	8%	8%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
		High Demand					12%	12%	12%	11%	11%	10%	9%	-0%
	Debt Cash Flows													
	CF Base Case													
		Principle Repayment	-	-	-	-	(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
		Interest					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
		Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	0
		Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
		Change in GA	-	-	-	-	3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
		Total New Debt					-	-	-	-	-	-	-	0
		Record Here												
		Principle Repayment ($38.5B total)					(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
		Interest ($35.7B total)					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
		Borrowing to Fund Interest ($13.5B total)					-	-	-	-	-	-	-	0
		Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
		Change in GA					3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
		Total New Debt ($38.5B total)					-	-	-	-	-	-	-	0
	CF Feb 27													
		Principle Repayment	-	toggle	-	-	(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
		Interest					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
		Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	0
		Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
		Change in GA	-	-	-	-	3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
		Total New Debt					-	-	-	-	-	-	-	0
		Record Here												
		Principle Repayment ($21.9B total)					(1,224)	(1,286)	(1,352)	(1,421)	(1,494)	(1,571)	(1,651)	-
		Interest ($20.7B total)					(512)	(449)	(383)	(314)	(241)	(165)	(85)	(0)
		Borrowing to Fund Interest ($3.9B total)					-	-	-	-	-	-	-	0
		Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
		Change in GA					1,736	1,736	1,736	1,736	1,736	1,736	1,736	-
		Total New Debt ($21.9B total)					-	-	-	-	-	-	-	0
	Balances													
	Balances - Base Case													
		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
		Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	10,661	7,284	3,734	3	3
		Record Here												
		Debt Balance - Funding for Rate Reductions					6,313	3,405	349	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
4		Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
6		Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
353		Debt Balance - Funding for Interest					13,524	13,524	13,524	10,661	7,284	3,734	3	3
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	2,294	1,966	1,638	1,311	983	655	328	(0)
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					6,313	3,405	349	-	-	-	-	-
360		Debt Balance - Funding for Interest					8,079	6,925	5,771	4,617	3,462	2,308	1,154	0
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	10,661	7,284	3,734	3	3
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					3,936	2,649	1,297	-	-	-	-	-
367		Debt Balance - Funding for Interest					4,842	4,842	4,842	4,717	3,223	1,653	2	2
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	2,294	1,966	1,638	1,311	983	655	328	(0)
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					3,936	2,649	1,297	-	-	-	-	-
374		Debt Balance - Funding for Interest					2,294	1,966	1,638	1,311	983	655	328	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
2		**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
4		Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
6		Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-	-	-	-	157	158	-	-	-	-	-	-
14		Base Residential Demand					78	79	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-	-	-	-	157	158	0	0	0	0	0	0
18		Residential Demand Sensitivity					78	79	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23		Base Residential Demand	-	-	-	-	78	79	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32		Base Residential Demand	-	-	-	-	78	79	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-	-	-	-	78	79	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					(0.00)	(0.00)	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-0.00%	-0.00%	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-	-	-	-	78	79	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-0.00%	-0.00%	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					209	210	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
		Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
		Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
		IR Sensitivity Bill Increase (Savings)	-		-	- -	(0)	(0)	-	-	-	-	-	-
		IR Sensitivity Bill					209	210	-	-	-	-	-	-
		ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		OPG Sensitivity Bill Impact	-		-	- -	(0.00)	(0.00)	-	-	-	-	-	-
		OPG Sensitivity Bill					209	210	-	-	-	-	-	-
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
		Bill Impact after Change in Demand	-		-	- -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bill Reduction after Change in Demand					209	210	-	-	-	-	-	-
	BILL CHARTS													
	25% Reduction/6 Year Reduction Chart													
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
	enario 10 Record below	OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
		25% ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		6 Year Bill Reduction / 25 Year Amortization	-		-	- -	209	210	-	-	-	-	-	-
	25% Reduction/5 Year Reduction Chart													
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
	enario 7 Record below	OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
		25% ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		5 Year Bill Reduction / 21 Year Amortization	-		-	- -	209	210	-	-	-	-	-	-
	20% Bill Reduction Chart													
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
	enario 2, record below	ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
		20% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
	IR Sensitivity Chart													
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
	ario 9, Record all below	ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		IR Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
		7% Interest Rate					209	210	-	-	-	-	-	-
	Generator Cost Chart													
		ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
	ario 8 Record all below	ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
		OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
		Record Here												

Bill Impact

2		**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
4		Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
6		Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
125		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
126		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
127		30% BP Cost Increase					209	210	-	-	-	-	-	-
129	**High Gas Price Chart**													
130		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
131	ario 4 Record all below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
132		OPG Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
134		Record Here												
135		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
136		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
137		High Gas Price					209	210	-	-	-	-	-	-
139	**Carbon Price**													
140		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
141	ario 5 Record all below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
142		OPG Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
144		Record Here												
145		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
146		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
147		Federal Carbon Prices					209	210	-	-	-	-	-	-
149	**Low CAD**													
150		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
151	nario6 Record all below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
152		OPG Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
154		Record Here												
155		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
156		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
157		66.7 cent CAD					209	210	-	-	-	-	-	-
159	**Low Demand**													
160		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
161	rio 11 Record all below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
162		Bill Reduction after Change in Demand	-	-	-	-	209	210	-	-	-	-	-	-
164		Record Here												
165		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
166		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
167		Low Demand					209	210	-	-	-	-	-	-
169	**High Gas Price Chart**													
170		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
171	rio 12 Record all below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
172		OPG Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
174		Record Here												
175		ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
176		25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
177		Very High Gas Price					209	210	-	-	-	-	-	-
179	**Feb 27 Ministry Scenario**													
180		ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
181	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	209	210	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	209	210	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	209	210	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
207					High Demand					208	209	-	-	-	-	-	-
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					0%	0%	-	-	-	-	-	-
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					0%	0%	-	-	-	-	-	-
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-0%	-0%	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					0%	0%	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					0%	0%	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-0%	-0%	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-0%	-0%	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					0%	0%	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-0%	-0%	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					0%	0%	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-0%	-0%	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-0%	-0%	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-0%	-0%	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-0%	-0%	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-0%	-0%	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					0	0	0	0	0	0	0	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326					Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					0	0	0	0	0	0	0	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	3	3	3	4	4	4	4	4
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
Financial year ending						2049	2050	2051	2052	2053	2054	2055	2056
Model column counter	**Constant**	**Unit**		**Total**		33	34	35	36	37	38	39	40
Debt Balance - Funding for Interest						3	3	3	4	4	4	4	4
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		3	3	3	4	4	4	4	4
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						2	2	2	2	2	3	3	3
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
4		Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
6		Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
68					IR Sensitivity Bill Increase (Savings)	-		-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-		-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-		-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-		-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-		-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
182	enario 13 Record below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-		- -	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-		- -	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-		- -	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-		- -	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-		- -	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-		- -	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	Scenario 8, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	Scenario 4, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	Scenario 5, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	Scenario 6, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	Scenario 11, record below				Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	Scenario12, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	Scenario 13, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
		Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
		Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
296		Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
298	**Feb 27 Ministry Scenario 7% IR**													
299	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
300	nario 14, record below	IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
302		Record Here												
303		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304		Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
306	**High Demand**													
307	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
308	enario 15, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
310		Record Here												
311		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312		High Demand					-	-	-	-	-	-	-	-
314	**Debt Cash Flows**													
315	**CF Base Case**													
316		Principle Repayment	-	-	-	-	-	-	-	-	-	-	-	-
317		Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318		Borrowing to Fund Interest	-	-	-	-	0	0	0	0	0	0	0	0
319		Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
320		Change in GA	-	-	-	-	-	-	-	-	-	-	-	-
321		Total New Debt					0	0	0	0	0	0	0	0
323		Record Here												
324		Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325		Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326		Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327		Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328		Change in GA					-	-	-	-	-	-	-	-
329		Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
331	**CF Feb 27**													
332		Principle Repayment	-	toggle	-	-	-	-	-	-	-	-	-	-
333		Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334		Borrowing to Fund Interest	-	-	-	-	0	0	0	0	0	0	0	0
335		Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
336		Change in GA	-	-	-	-	-	-	-	-	-	-	-	-
337		Total New Debt					0	0	0	0	0	0	0	0
339		Record Here												
340		Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341		Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342		Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343		Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344		Change in GA					-	-	-	-	-	-	-	-
345		Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
347	**Balances**													
348	**Balances - Base Case**													
349		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
350		Accumulated Interest Balance	-	-	-	-	5	5	5	5	6	6	6	7
351		Record Here												
352		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
4		Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
6		Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
353		Debt Balance - Funding for Interest					5	5	5	5	6	6	6	7
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
360		Debt Balance - Funding for Interest					0	0	0	0	0	0	0	0
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	5	5	5	5	6	6	6	7
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
367		Debt Balance - Funding for Interest					3	3	3	3	4	4	4	4
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
374		Debt Balance - Funding for Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
11																	
12					RPP Share of Consumption	50.00%	%										
13					Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-	-	-	-	-	-
15																	
16					RPP Share of Consumption	50.00%	%										
17					Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18					Residential Demand Sensitivity					-	-	-	-	-	-	-	-
19																	
20	**ENERGY BASE**																
21					Average Household Demand	0.75	MWh										
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25																	
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
28																	
29	**IR Sensitivity**																
30					Average Household Demand	0.75	MWh										
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34																	
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
37																	
38	**OPG SENSITIVITY**																
39					Average Household Demand	0.75	MWh										
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
43																	
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
46																	
47					Sensitivity Incremental to Ministry Scenario?	0	toggle										
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
49																	
50	**DEMAND SENSITIVITY**																
51					Average Household Demand	0.75	MWh										
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%										
55					Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57																	
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
60																	
61																	
62	**TOTAL BILLS**																
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-	-	-	-	-	-
66																	
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

	A B C D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**													
2		**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3														
4		Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5														
6		Model column counter	**Constant**	**Unit**	**Total**		49	50	51	52	53	54	55	56
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
70														
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74														
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78														
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84														
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89														
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	cenario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94														
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99														
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103														
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108														
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	rio 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113														
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
118														
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123														
124		Record Here												

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
182				enario 13 Record below	ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191				enario 1, Record below	ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192				enario 14 Record below	IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201				rio 15 Record all below	ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211				enario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212				nario 10, record below	OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219				enario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220				enario 7, record below	OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227				enario 2, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					0	0	0	0	0	0	0	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326					Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					0	0	0	0	0	0	0	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	7	7	8	8	8	9	9	10
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
Financial year ending						2065	2066	2067	2068	2069	2070	2071	2072
Model column counter	**Constant**	**Unit**		**Total**		49	50	51	52	53	54	55	56
Debt Balance - Funding for Interest						7	7	8	8	8	9	9	10
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		7	7	8	8	8	9	9	10
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						4	5	5	5	5	6	6	6
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
11																	
12					RPP Share of Consumption	50.00%	%										
13					Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-	-	-	-	-	-
15																	
16					RPP Share of Consumption	50.00%	%										
17					Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18					Residential Demand Sensitivity					-	-	-	-	-	-	-	-
19																	
20	**ENERGY BASE**																
21					Average Household Demand	0.75	MWh										
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25																	
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
28																	
29	**IR Sensitivity**																
30					Average Household Demand	0.75	MWh										
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34																	
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
37																	
38	**OPG SENSITIVITY**																
39					Average Household Demand	0.75	MWh										
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
43																	
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
46																	
47					Sensitivity Incremental to Ministry Scenario?	0	toggle										
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
49																	
50	**DEMAND SENSITIVITY**																
51					Average Household Demand	0.75	MWh										
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%										
55					Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57																	
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
60																	
61																	
62	**TOTAL BILLS**																
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-	-	-	-	-	-
66																	
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

	A B C D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**													
2		**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3														
4		Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5														
6		Model column counter	**Constant**	**Unit**	**Total**		57	58	59	60	61	62	63	64
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
70														
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74														
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78														
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84														
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89														
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	cenario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94														
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99														
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103														
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108														
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	rio 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113														
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
118														
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123														
124		Record Here												

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	1	1
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	1	1
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	1	1
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	1	1
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	10	11	11	12	13	13	14	15
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
Financial year ending						2073	2074	2075	2076	2077	2078	2079	2080
Model column counter	**Constant**	**Unit**		**Total**		57	58	59	60	61	62	63	64
Debt Balance - Funding for Interest						10	11	11	12	13	13	14	15
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		10	11	11	12	13	13	14	15
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						7	7	7	8	8	8	9	9
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	Model period ending					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
	Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
	Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
	RPP Share of Consumption	50.00%	%										
	Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
	Base Residential Demand					-	-	-	-	-	-	-	-
	RPP Share of Consumption	50.00%	%										
	Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
	Residential Demand Sensitivity					-	-	-	-	-	-	-	-
ENERGY BASE													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
	Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
	ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
	ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
IR Sensitivity													
	Average Household Demand	0.75	MWh										
	RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
	Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
	IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
	IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
OPG SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
	OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
	OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
	Sensitivity Incremental to Ministry Scenario?	0	toggle										
	OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
	Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	RPP Share of Consumption	50.00%	%										
	Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
	Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
	Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
TOTAL BILLS													
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
	ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
	ENERGY Bill Reduction					-	-	-	-	-	-	-	-
	ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4		Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
6		Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
124		Record Here												

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	cenario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	cenario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	1	1
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	1	1
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	1	1
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	1	1
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
342					Borrowing to Fund Interest ($3.9B total)					0	1	1	1	1	1	1	1
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	1	1	1	1	1	1	1
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	15	16	17	18	19	20	21	22
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
Financial year ending						2081	2082	2083	2084	2085	2086	2087	2088
Model column counter	**Constant**	**Unit**		**Total**		65	66	67	68	69	70	71	72
Debt Balance - Funding for Interest						15	16	17	18	19	20	21	22
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		15	16	17	18	19	20	21	22
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						10	10	11	11	12	13	13	14
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
2		**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
4		Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
6		Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
68					IR Sensitivity Bill Increase (Savings)	-		-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-		-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-		-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-		-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-		-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
		Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
		Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
		ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
		7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
	BP 30%													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		BP 30% Cost Increase					-	-	-	-	-	-	-	-
	High Gas Price													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		High Gas Price					-	-	-	-	-	-	-	-
	Federal CO2 Prices													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Federal Carbon Prices					-	-	-	-	-	-	-	-
	Low CAD													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		66.7 cent CAD					-	-	-	-	-	-	-	-
	Low Demand													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Low Demand					-	-	-	-	-	-	-	-
	Double High Gas Price													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Very High Gas Price					-	-	-	-	-	-	-	-
	Feb 27 Ministry Scenario													
	Scenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
	Scenario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				Scenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				Scenario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				Scenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				Scenario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	2	2
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	2	2
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	2	2
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	2	2
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	2	2
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	2	2
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
342					Borrowing to Fund Interest ($3.9B total)					1	1	1	1	1	1	1	1
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					1	1	1	1	1	1	1	1
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	23	24	25	27	28	29	31	33
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
Financial year ending						2089	2090	2091	2092	2093	2094	2095	2096
Model column counter	**Constant**	**Unit**		**Total**		73	74	75	76	77	78	79	80
Debt Balance - Funding for Interest						23	24	25	27	28	29	31	33
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		23	24	25	27	28	29	31	33
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						15	15	16	17	18	19	20	21
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
2		**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
4		Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
6		Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	-	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	-	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	-	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	-	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	-	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	-	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226	**20% Reduction**																
227	cenario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
318					Borrowing to Fund Interest	-		-	-	2	2	2	2	2	2	2	2
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					2	2	2	2	2	2	2	2
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
326					Borrowing to Fund Interest ($13.5B total)					2	2	2	2	2	2	2	2
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					2	2	2	2	2	2	2	2
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
334					Borrowing to Fund Interest	-		-	-	2	2	2	2	2	2	2	2
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					2	2	2	2	2	2	2	2
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
342					Borrowing to Fund Interest ($3.9B total)					1	1	1	1	1	1	1	2
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					1	1	1	1	1	1	1	2
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	34	36	38	40	42	44	46	48
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
Financial year ending						2097	2098	2099	2100	2101	2102	2103	2104
Model column counter	**Constant**	**Unit**		**Total**		81	82	83	84	85	86	87	88
Debt Balance - Funding for Interest						34	36	38	40	42	44	46	48
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		34	36	38	40	42	44	46	48
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						22	23	24	25	27	28	29	31
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
4		Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
6		Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
		Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
		Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
70														
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74														
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78														
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84														
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89														
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94														
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99														
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103														
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108														
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113														
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
118														
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123														
124		Record Here												

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	enario 8, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	enario 4, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	enario 5, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	enario 6, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	enario 11, record below				Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	enario12, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	nario 13, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
318					Borrowing to Fund Interest	-		-	-	2	3	3	3	3	3	3	4
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					2	3	3	3	3	3	3	4
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
326					Borrowing to Fund Interest ($13.5B total)					2	3	3	3	3	3	3	4
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					2	3	3	3	3	3	3	4
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
334					Borrowing to Fund Interest	-		-	-	2	3	3	3	3	3	3	4
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					2	3	3	3	3	3	3	4
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
342					Borrowing to Fund Interest ($3.9B total)					2	2	2	2	2	2	2	2
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					2	2	2	2	2	2	2	2
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	51	54	56	59	62	65	69	72
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
Financial year ending						2105	2106	2107	2108	2109	2110	2111	2112
Model column counter	**Constant**	**Unit**		**Total**		89	90	91	92	93	94	95	96
Debt Balance - Funding for Interest						51	54	56	59	62	65	69	72
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		51	54	56	59	62	65	69	72
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						32	34	36	38	40	42	44	46
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
11																	
12					RPP Share of Consumption	50.00%	%										
13					Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-	-	-	-	-	-
15																	
16					RPP Share of Consumption	50.00%	%										
17					Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18					Residential Demand Sensitivity					-	-	-	-	-	-	-	-
19																	
20	**ENERGY BASE**																
21					Average Household Demand	0.75	MWh										
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25																	
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
28																	
29	**IR Sensitivity**																
30					Average Household Demand	0.75	MWh										
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34																	
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
37																	
38	**OPG SENSITIVITY**																
39					Average Household Demand	0.75	MWh										
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
43																	
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
46																	
47					Sensitivity Incremental to Ministry Scenario?	0	toggle										
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
49																	
50	**DEMAND SENSITIVITY**																
51					Average Household Demand	0.75	MWh										
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%										
55					Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57																	
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
60																	
61																	
62	**TOTAL BILLS**																
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-	-	-	-	-	-
66																	
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
Financial year ending						2113	2114	2115	2116	2117	2118	2119	2120
Model column counter	**Constant**	**Unit**		**Total**		97	98	99	100	101	102	103	104
IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-	-
IR Sensitivity Bill						-	-	-	-	-	-	-	-
ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-	-
OPG Sensitivity Bill						-	-	-	-	-	-	-	-
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
Bill Impact after Change in Demand	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bill Reduction after Change in Demand						-	-	-	-	-	-	-	-
BILL CHARTS													
25% Reduction/6 Year Reduction Chart													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
enario 1, Record below ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
enario 10 Record below OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
Record Here													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-	-
25% Reduction/5 Year Reduction Chart													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
enario 1, Record below ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
enario 7 Record below OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
Record Here													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-	-
20% Bill Reduction Chart													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
cenario 2, record below ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
Record Here													
ENERGY Base Residential Bill						-	-	-	-	-	-	-	-
25% ENERGY Bill Reduction						-	-	-	-	-	-	-	-
20% ENERGY Bill Reduction						-	-	-	-	-	-	-	-
IR Sensitivity Chart													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
ario 9, Record all below ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
Record Here													
ENERGY Base Residential Bill						-	-	-	-	-	-	-	-
25% ENERGY Bill Reduction						-	-	-	-	-	-	-	-
7% Interest Rate						-	-	-	-	-	-	-	-
Generator Cost Chart													
ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
ario 8 Record all below ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-	-
OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-	-
Record Here													

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
318					Borrowing to Fund Interest	-		-	-	4	4	4	4	5	5	5	5
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					4	4	4	4	5	5	5	5
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
326					Borrowing to Fund Interest ($13.5B total)					4	4	4	4	5	5	5	5
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					4	4	4	4	5	5	5	5
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
334					Borrowing to Fund Interest	-		-	-	4	4	4	4	5	5	5	5
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					4	4	4	4	5	5	5	5
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(2)	(2)	(3)	(3)	(3)	(3)	(3)	(3)
342					Borrowing to Fund Interest ($3.9B total)					2	2	3	3	3	3	3	3
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					2	2	3	3	3	3	3	3
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	76	80	84	88	93	97	102	108
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
4		Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
6		Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
353		Debt Balance - Funding for Interest					76	80	84	88	93	97	102	108
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
360		Debt Balance - Funding for Interest					0	0	0	0	0	0	0	0
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	76	80	84	88	93	97	102	108
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
367		Debt Balance - Funding for Interest					48	51	53	56	59	62	65	69
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
374		Debt Balance - Funding for Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**		**Total**	105	106	107
11												
12					RPP Share of Consumption	50.00%	%					
13					Base Electricity Demand	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-
15												
16					RPP Share of Consumption	50.00%	%					
17					Total Electricity Demand	-	-	-	-	0	0	0
18					Residential Demand Sensitivity					-	-	-
19												
20	**ENERGY BASE**											
21					Average Household Demand	0.75	MWh					
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00
25												
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%
28												
29	**IR Sensitivity**											
30					Average Household Demand	0.75	MWh					
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00
34												
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%
37												
38	**OPG SENSITIVITY**											
39					Average Household Demand	0.75	MWh					
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-
43												
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-
46												
47					Sensitivity Incremental to Ministry Scenario?	0	toggle					
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%
49												
50	**DEMAND SENSITIVITY**											
51					Average Household Demand	0.75	MWh					
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%					
55					Residential Demand Sensitivity	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00
57												
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-
60												
61												
62	**TOTAL BILLS**											
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-
66												
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-
70												
71					ENERGY Bill Reduction	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-
74												
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-
78												
79	**BILL CHARTS**											
80	**25% Reduction/6 Year Reduction Chart**											
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-
84												
85					Record Here							
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-
89												
90	**25% Reduction/5 Year Reduction Chart**											
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-
94												
95					Record Here							
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-
99												
100	**20% Bill Reduction Chart**											
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-
102	enario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
103												
104					Record Here							
105					ENERGY Base Residential Bill					-	-	-
106					25% ENERGY Bill Reduction					-	-	-
107					20% ENERGY Bill Reduction					-	-	-
108												
109	**IR Sensitivity Chart**											
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-
111	rio 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-
113												
114					Record Here							
115					ENERGY Base Residential Bill					-	-	-
116					25% ENERGY Bill Reduction					-	-	-
117					7% Interest Rate					-	-	-
118												
119	**Generator Cost Chart**											
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-
121	rio 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-
123												
124					Record Here							

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
125					ENERGY Base Residential Bill					-	-	-
126					25% ENERGY Bill Reduction					-	-	-
127					30% BP Cost Increase					-	-	-
128												
129	**High Gas Price Chart**											
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-
133												
134					Record Here							
135					ENERGY Base Residential Bill					-	-	-
136					25% ENERGY Bill Reduction					-	-	-
137					High Gas Price					-	-	-
138												
139	**Carbon Price**											
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-
143												
144					Record Here							
145					ENERGY Base Residential Bill					-	-	-
146					25% ENERGY Bill Reduction					-	-	-
147					Federal Carbon Prices					-	-	-
148												
149	**Low CAD**											
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-
153												
154					Record Here							
155					ENERGY Base Residential Bill					-	-	-
156					25% ENERGY Bill Reduction					-	-	-
157					66.7 cent CAD					-	-	-
158												
159	**Low Demand**											
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-
163												
164					Record Here							
165					ENERGY Base Residential Bill					-	-	-
166					25% ENERGY Bill Reduction					-	-	-
167					Low Demand					-	-	-
168												
169	**High Gas Price Chart**											
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-
173												
174					Record Here							
175					ENERGY Base Residential Bill					-	-	-
176					25% ENERGY Bill Reduction					-	-	-
177					Very High Gas Price					-	-	-
178												
179	**Feb 27 Ministry Scenario**											
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
182				enario 13 Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-
183												
184					Record Here							
185					ENERGY Base Residential Bill	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	-	-	-
188												
189	**Feb 27 Ministry Scenario 7% IR**											
190					ENERGY Base Residential Bill	-	-	-	-	-	-	-
191				enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-
192				enario 14 Record below	IR Sensitivity Bill	-	-	-	-	-	-	-
193												
194					Record Here							
195					ENERGY Base Residential Bill	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	-	-	-
198												
199	**High Demand**											
200					ENERGY Base Residential Bill	-	-	-	-	-	-	-
201				rio 15 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	-	-	-
203												
204					Record Here							
205					ENERGY Base Residential Bill					-	-	-
206					25% ENERGY Bill Reduction					-	-	-
207					High Demand					-	-	-
208												
209	**% of Bill**											
210				**25% Reduction/6 Year Reduction Chart**								
211				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
212				nario 10, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
213												
214					Record Here							
215					ENERGY 25% Bill Reduction					-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-
217												
218				**25% Reduction/5 Year Reduction Chart**								
219				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
220				enario 7, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
221												
222					Record Here							
223					ENERGY 25% Bill Reduction					-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-
225												
226				**20% Reduction**								
227				enario 2, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
228												
229												
230					Record Here							
231					ENERGY 25% Bill Reduction					-	-	-
232					ENERGY 20% Bill Reduction					-	-	-
233												
234				**7% Interest Rate**								
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-
237												
238					Record Here							

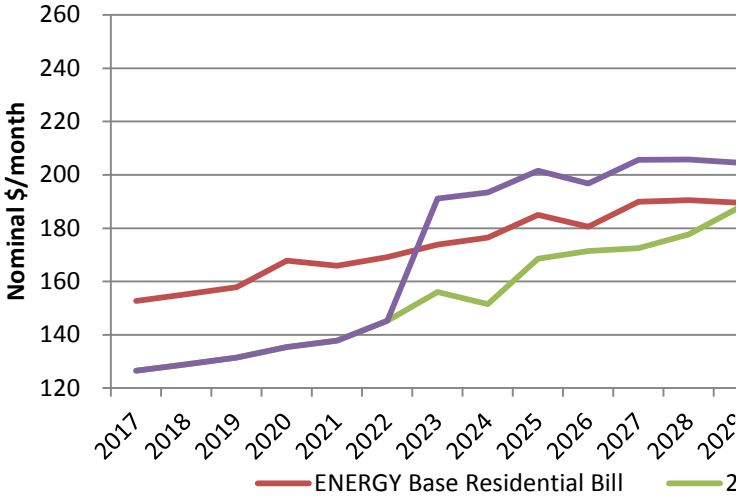
	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
239					ENERGY 25 % Bill Reduction					-	-	-
240					7% Interest Rate Sensitivity					-	-	-
241												
242				**BP 30%**								
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
245												
246					Record Here							
247					ENERGY 25% Bill Reduction					-	-	-
248					BP 30% Cost Increase					-	-	-
249												
250				**High Gas Price**								
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
253												
254					Record Here							
255					ENERGY 25% Bill Reduction					-	-	-
256					High Gas Price					-	-	-
257												
258				**Federal CO2 Prices**								
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
261												
262					Record Here							
263					ENERGY 25% Bill Reduction					-	-	-
264					Federal Carbon Prices					-	-	-
265												
266				**Low CAD**								
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
269												
270					Record Here							
271					ENERGY 25% Bill Reduction					-	-	-
272					66.7 cent CAD					-	-	-
273												
274				**Low Demand**								
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-
277												
278					Record Here							
279					ENERGY 25% Bill Reduction					-	-	-
280					Low Demand					-	-	-
281												
282				**Double High Gas Price**								
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
285												
286					Record Here							
287					ENERGY 25% Bill Reduction					-	-	-
288					Very High Gas Price					-	-	-
289												
290				**Feb 27 Ministry Scenario**								
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
293												
294					Record Here							
295					ENERGY 25% Bill Reduction					-	-	-

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**		**Total**	105	106	107
296					Feb 27 Ministry Scenario					-	-	-
297												
298		**Feb 27 Ministry Scenario 7% IR**										
299			cenario 1, record below		ENERGY Bill Reduction %	-		-	-	-	-	-
300			nario 14, record below		IR Sensitivity Bill Reduction %	-		-	-	-	-	-
301												
302					Record Here							
303					ENERGY 25% Bill Reduction					-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-
305												
306		**High Demand**										
307			cenario 1, record below		ENERGY Bill Reduction %	-		-	-	-	-	-
308			enario 15, record below		Change in Demand Bill Reduction %	-		-	-	-	-	-
309												
310					Record Here							
311					ENERGY 25% Bill Reduction					-	-	-
312					High Demand					-	-	-
313												
314	**Debt Cash Flows**											
315		**CF Base Case**										
316					Principle Repayment	-		-	-	-	-	-
317					Interest					(6)	(6)	(6)
318					Borrowing to Fund Interest	-		-	-	6	6	6
319					Borrowing for Rate Reductions	-		-	-	-	-	-
320					Change in GA	-		-	-	-	-	-
321					Total New Debt					6	6	6
322												
323					Record Here							
324					Principle Repayment ($38.5B total)					-	-	-
325					Interest ($35.7B total)					(6)	(6)	(6)
326					Borrowing to Fund Interest ($13.5B total)					6	6	6
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-
328					Change in GA					-	-	-
329					Total New Debt ($38.5B total)					6	6	6
330												
331		**CF Feb 27**										
332					Principle Repayment	-	toggle		-	-	-	-
333					Interest					(6)	(6)	(6)
334					Borrowing to Fund Interest	-		-	-	6	6	6
335					Borrowing for Rate Reductions	-		-	-	-	-	-
336					Change in GA	-		-	-	-	-	-
337					Total New Debt					6	6	6
338												
339					Record Here							
340					Principle Repayment ($21.9B total)					-	-	-
341					Interest ($20.7B total)					(4)	(4)	(4)
342					Borrowing to Fund Interest ($3.9B total)					4	4	4
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-
344					Change in GA					-	-	-
345					Total New Debt ($21.9B total)					4	4	4
346												
347	**Balances**											
348		**Balances - Base Case**										
349					Principle Balance	-		-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	113	119	125
351					Record Here							
352					Debt Balance - Funding for Rate Reductions					-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
4		Financial year ending					2121	2122	2123
6		Model column counter	**Constant**	**Unit**		**Total**	105	106	107
353		Debt Balance - Funding for Interest					113	119	125
355	**Balances - IR Sensitivity**								
356		Principle Balance	-	-	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)
358		Record Here							
359		Debt Balance - Funding for Rate Reductions					-	-	-
360		Debt Balance - Funding for Interest					0	0	0
362	**Balances - Feb 27 Base Case**								
363		Principle Balance	-	-	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	113	119	125
365		Record Here							
366		Debt Balance - Funding for Rate Reductions					-	-	-
367		Debt Balance - Funding for Interest					72	76	80
369	**Balances - Feb 27 IR Sensitivity**								
370		Principle Balance	-	-	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)
372		Record Here							
373		Debt Balance - Funding for Rate Reductions					-	-	-
374		Debt Balance - Funding for Interest					(0)	(0)	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660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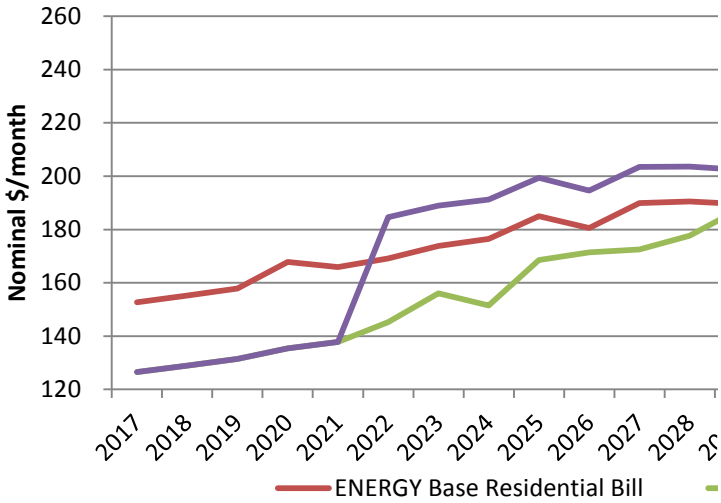
ENERGY Base Residential Bill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Nominal $/month
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ENERGY Base Residential Bill

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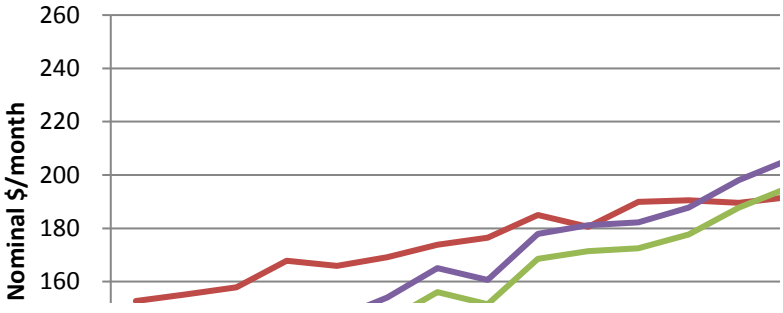
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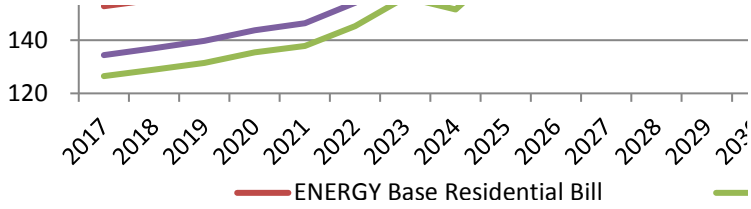
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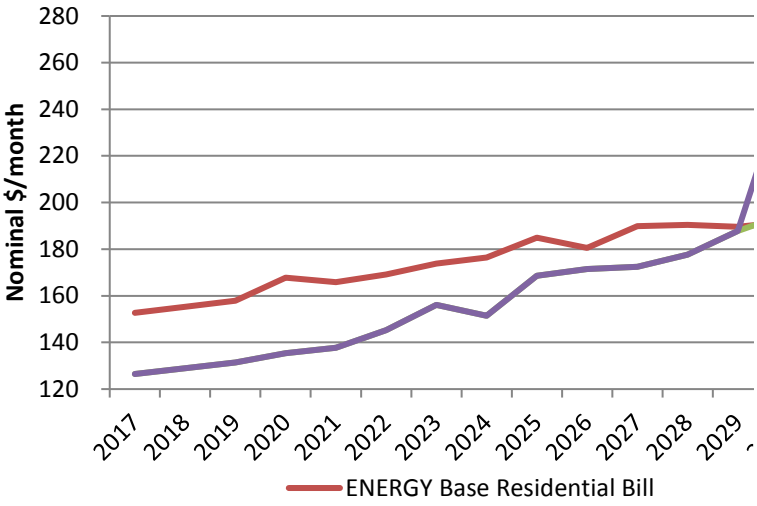
ENERGY Base Residential Bill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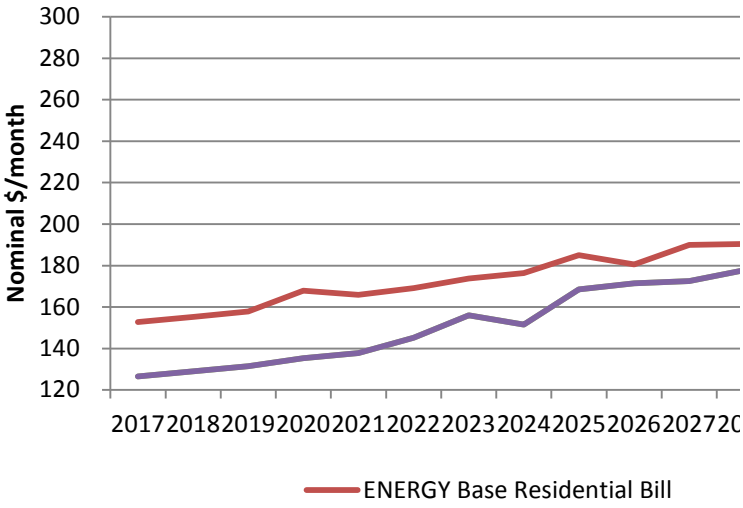
ENERGY Base Residential Bill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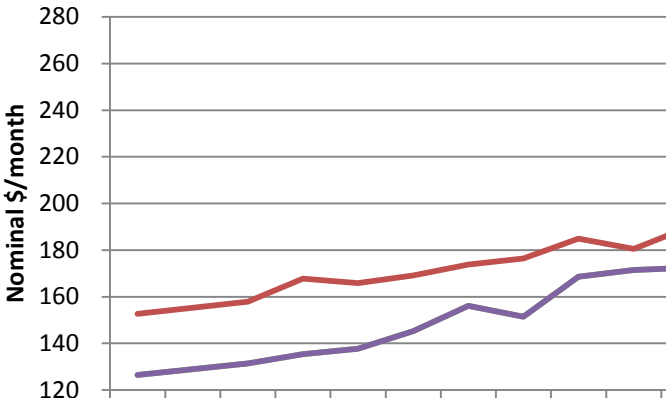
ENERGY Base Residential Bill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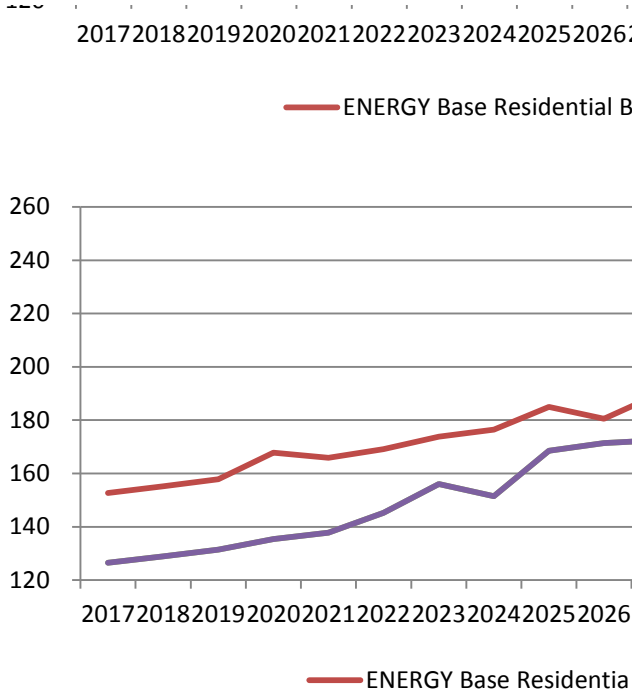
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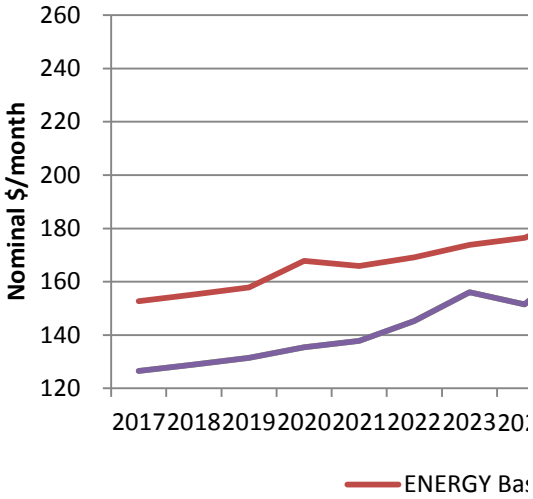
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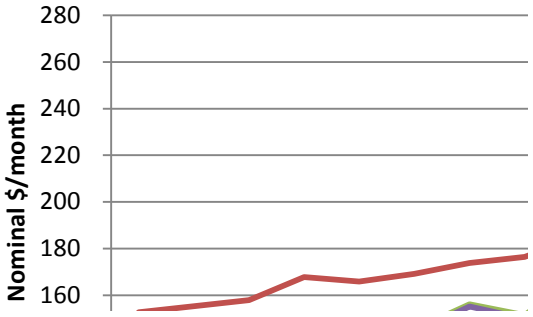
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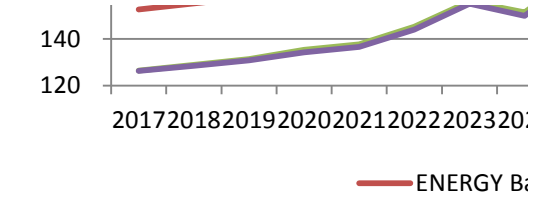
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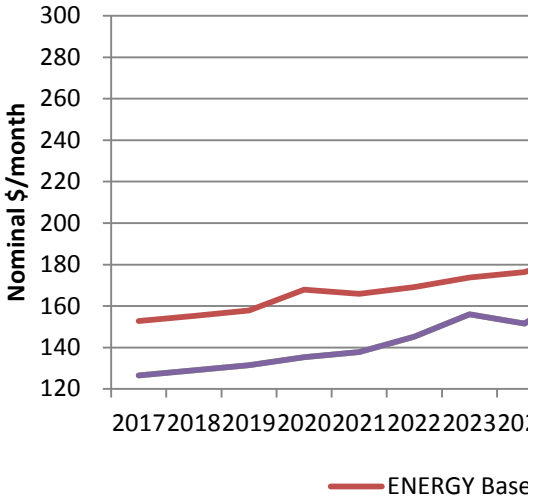
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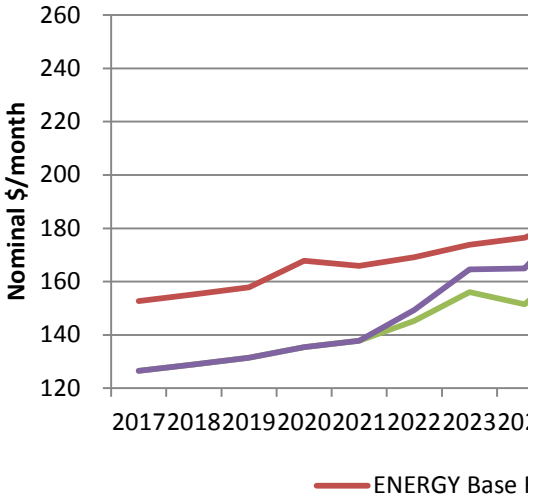
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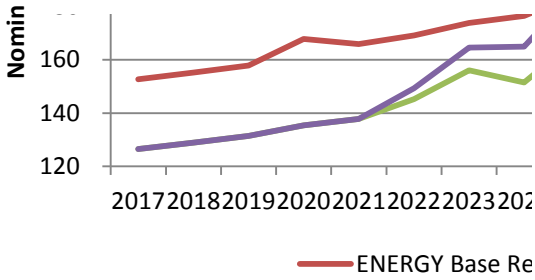
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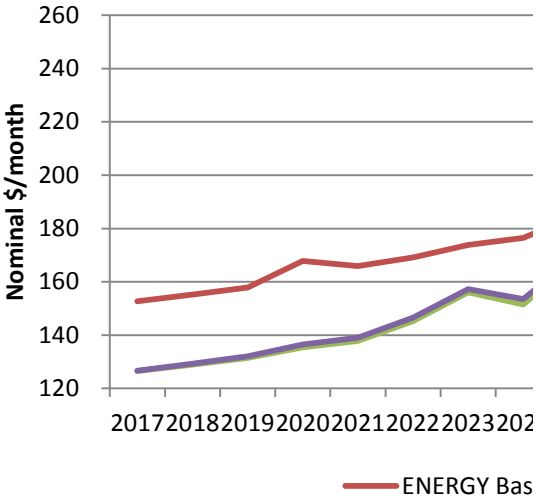
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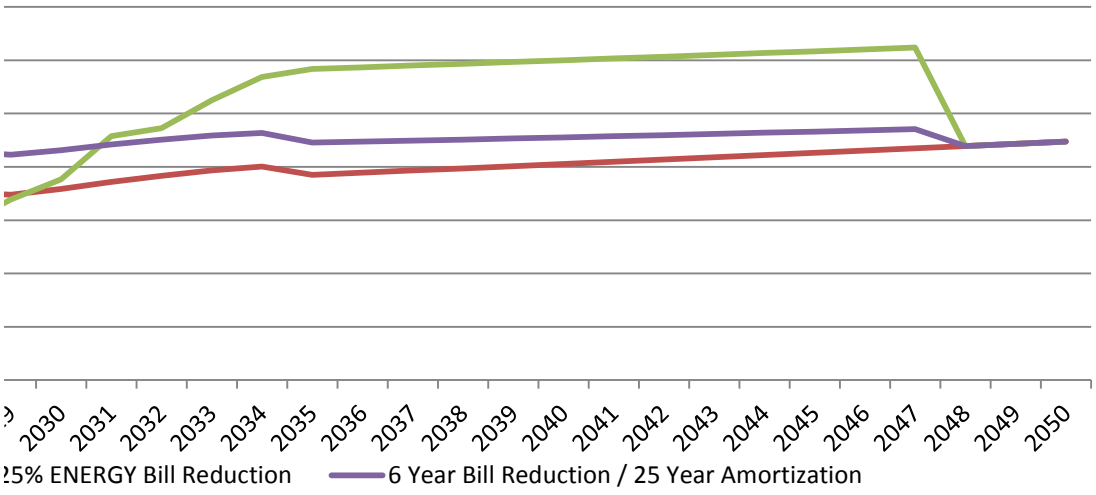
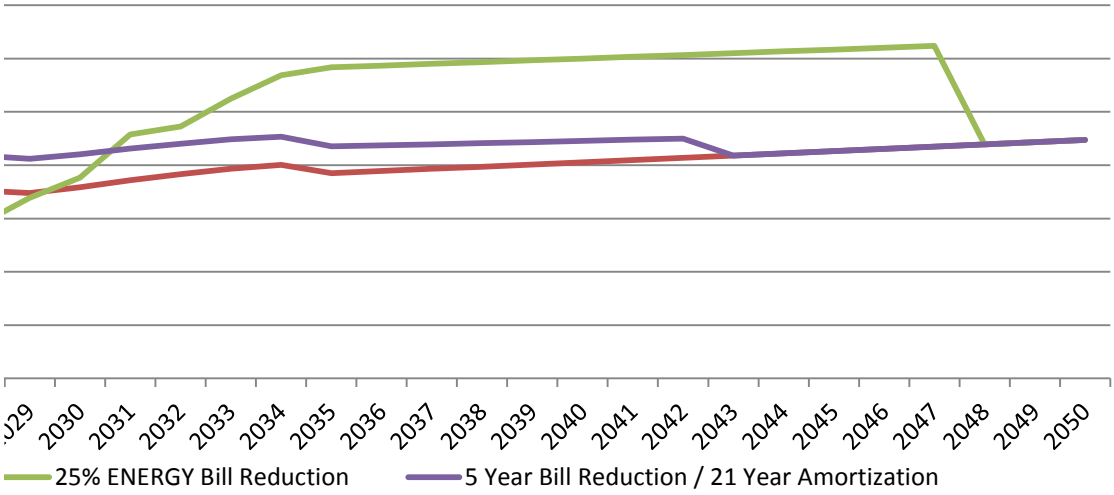
ENERGY Bas

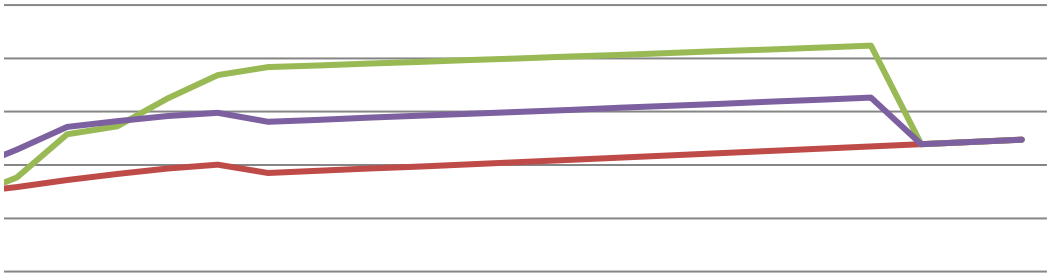
RPP Bill Forecast

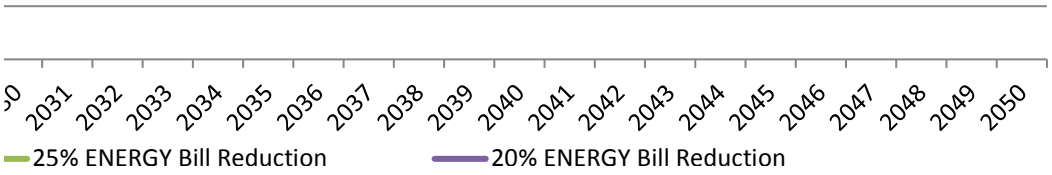


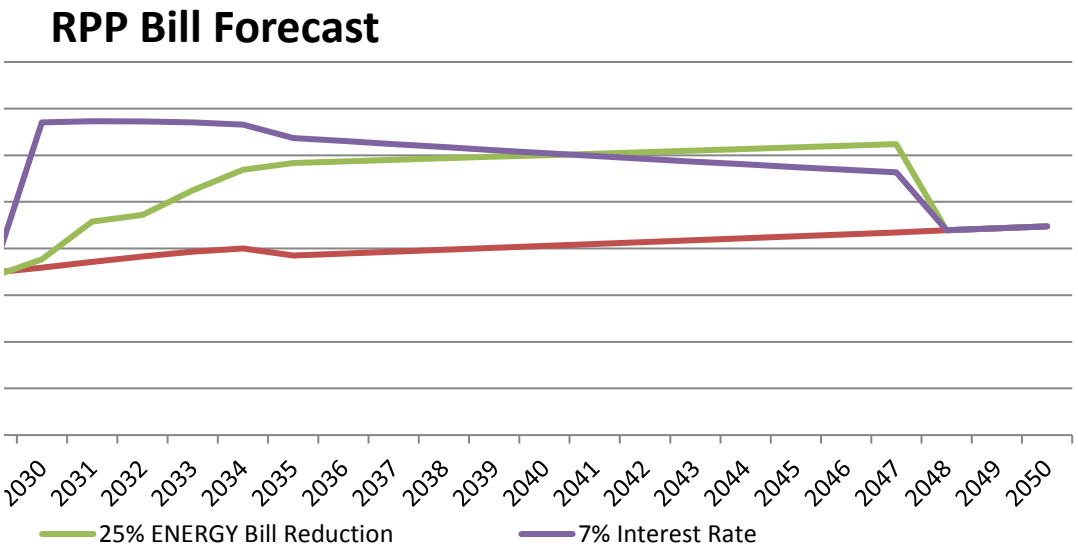
RPP Bill Forecast

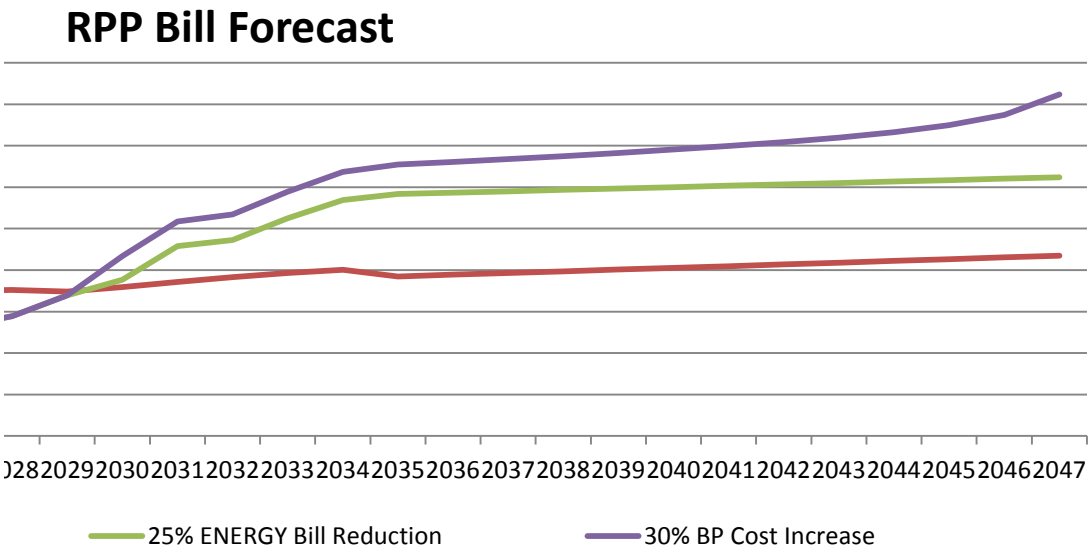


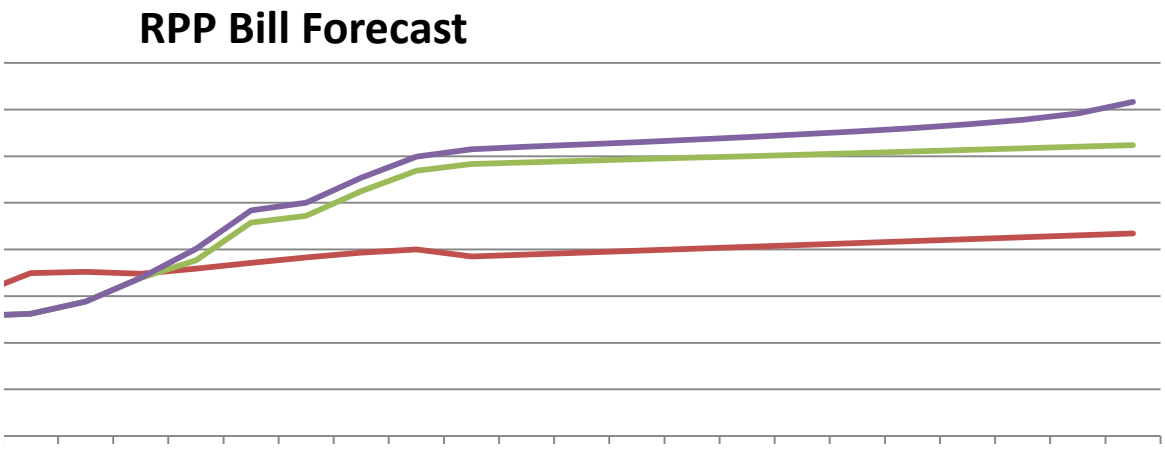
P Bill Forecast

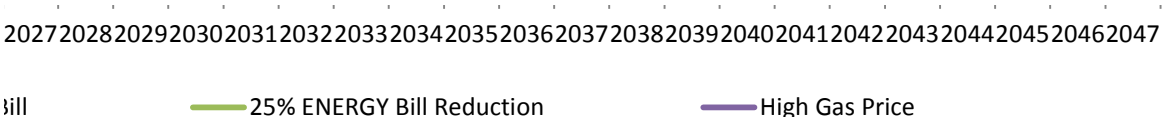



0 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050
25% ENERGY Bill Reduction
20% ENERGY Bill Reduction


RPP Bill Forecast
2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050
25% ENERGY Bill Reduction
7% Interest Rate


RPP Bill Forecast
2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047
25% ENERGY Bill Reduction
30% BP Cost Increase


RPP Bill Forecast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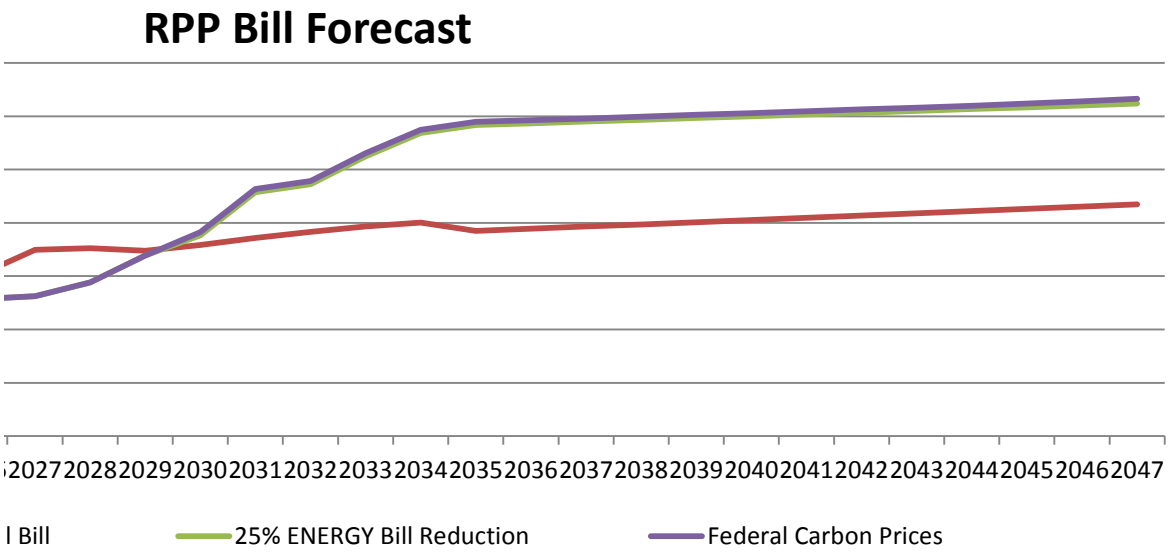
25% ENERGY Bill Reduction
High Gas Price


RPP Bill Forecast
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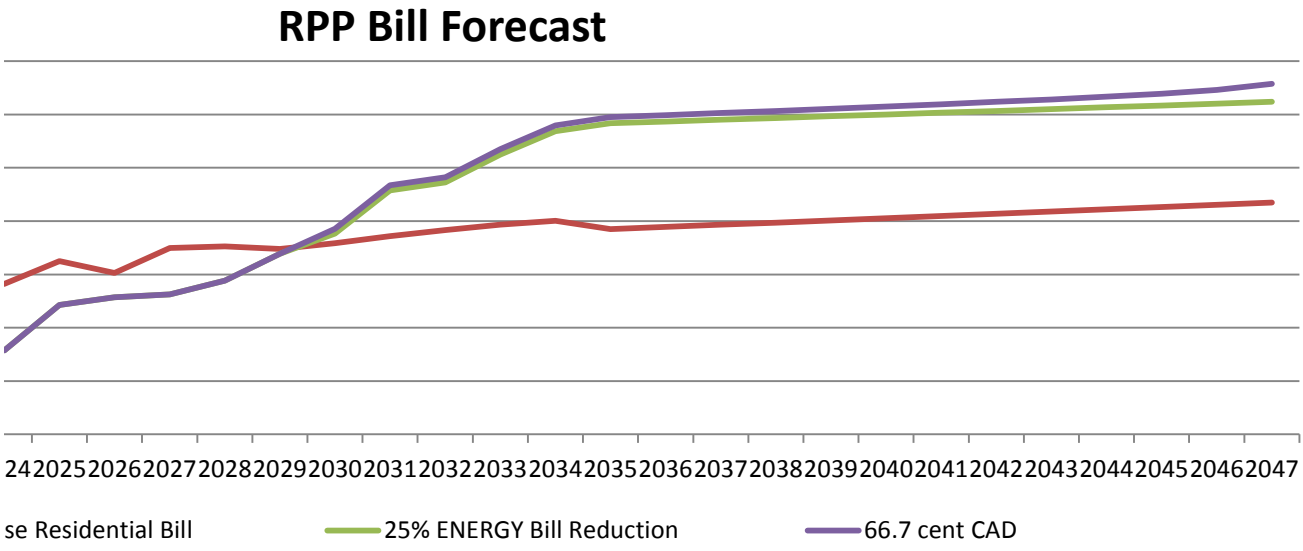
25% ENERGY Bill Reduction
Federal Carbon Prices


RPP Bill Forecast
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25% ENERGY Bill Reduction
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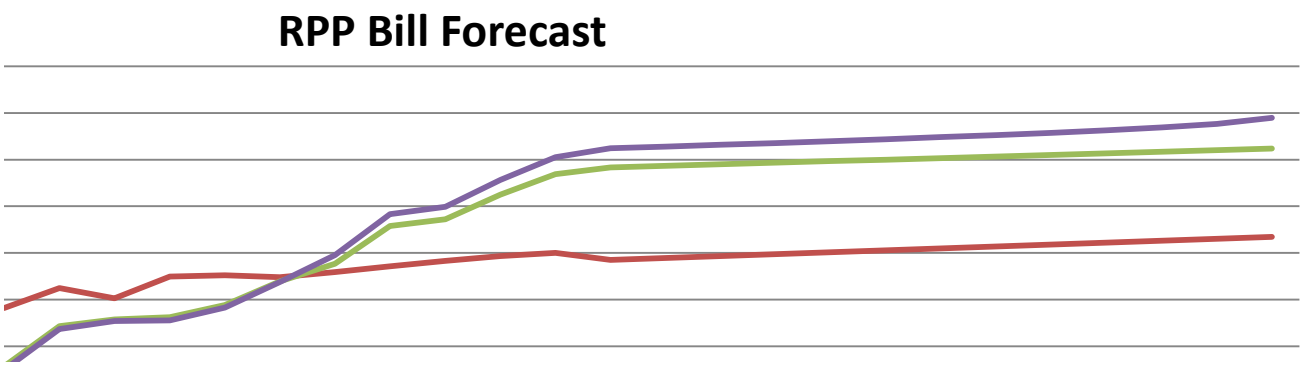
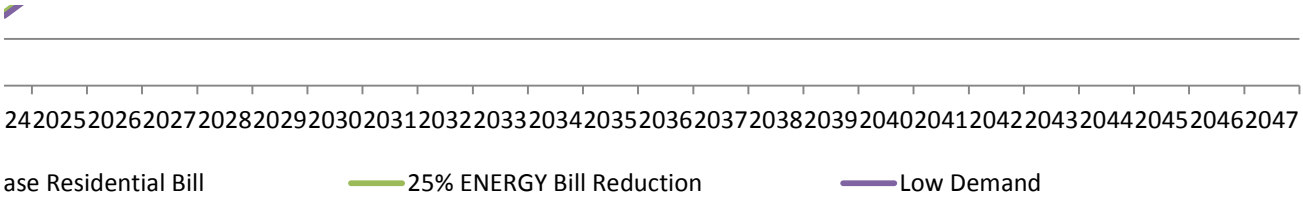

RPP Bill Forecast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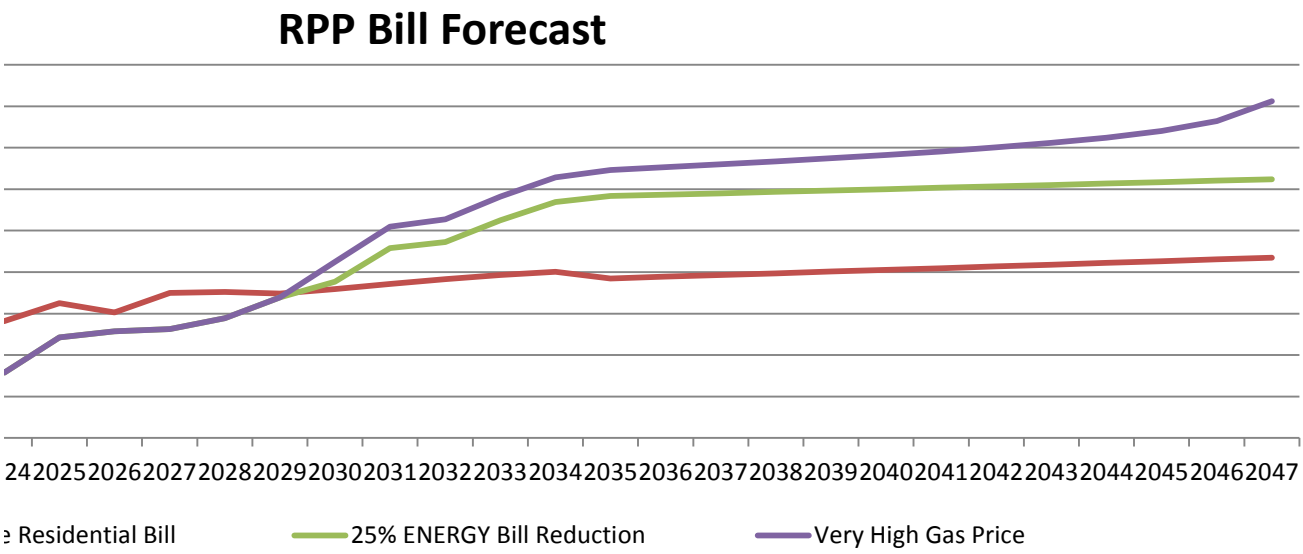
RPP Bill Forecast
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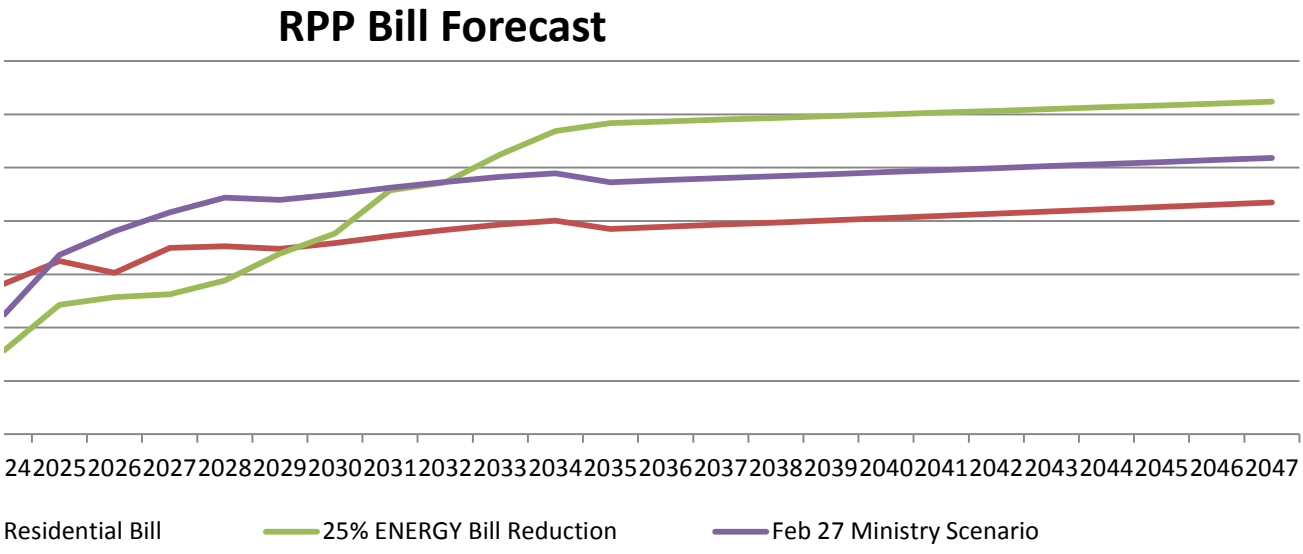
e Residential Bill
25% ENERGY Bill Reduction
Very High Gas Price


RPP Bill Forecast
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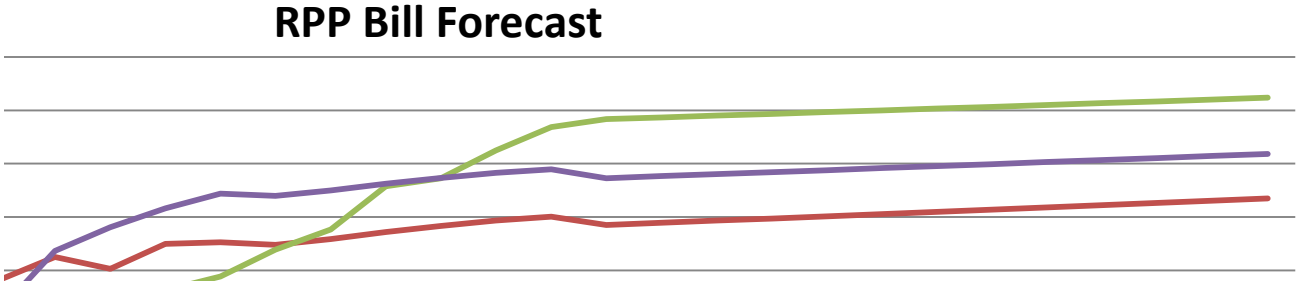
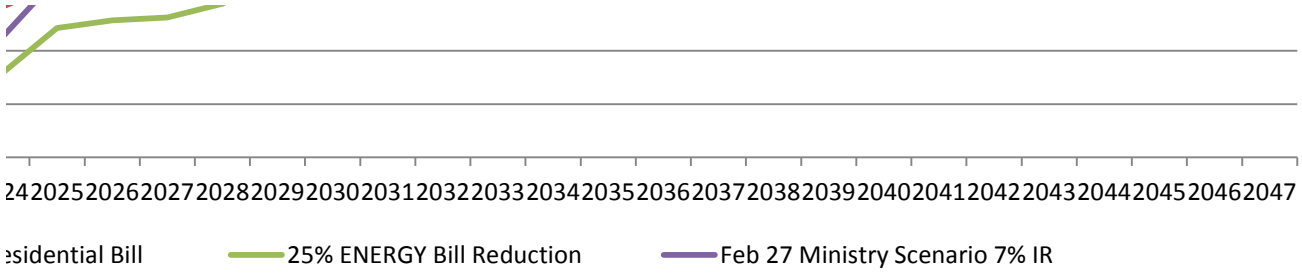
Residential Bill
25% ENERGY Bill Reduction
Feb 27 Ministry Scenario


RPP Bill Forecast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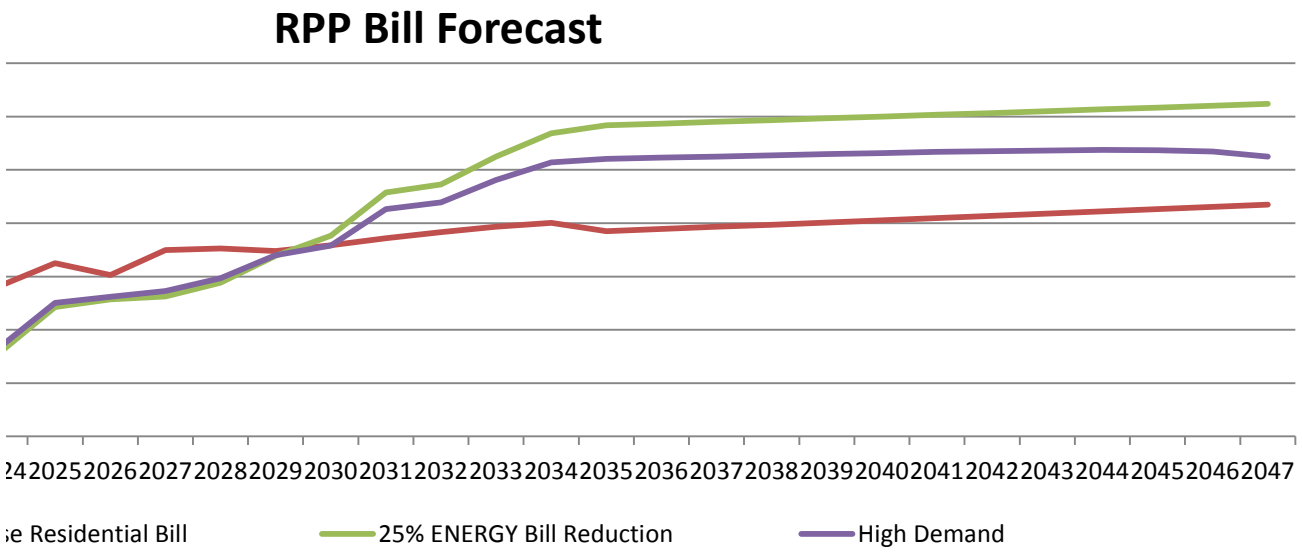
25% ENERGY Bill Reduction
Feb 27 Ministry Scenario 7% IR


RPP Bill Forecast
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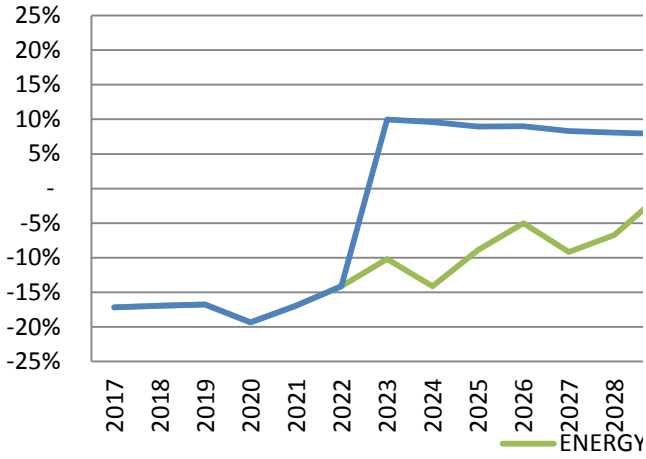

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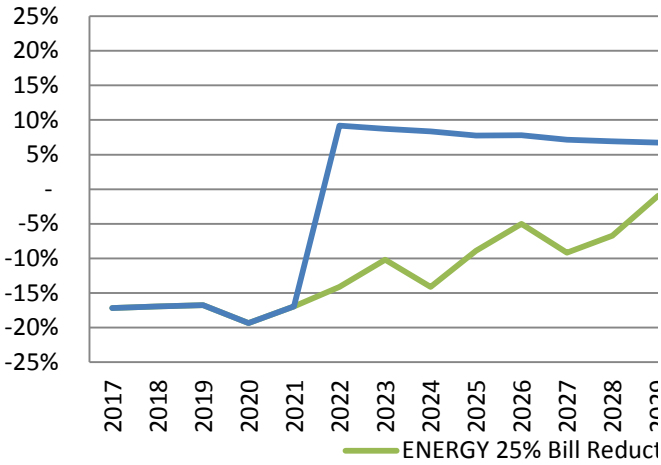

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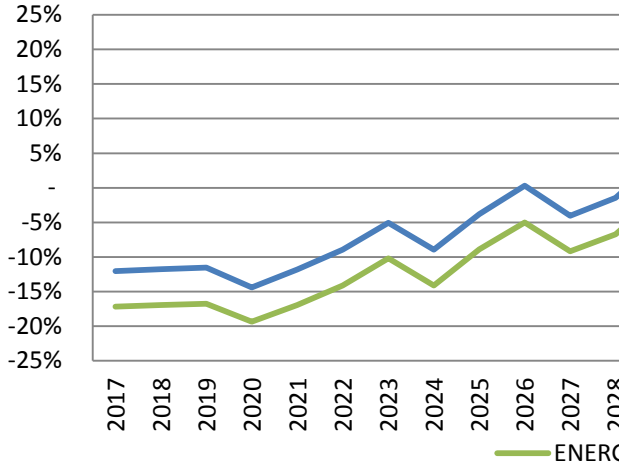

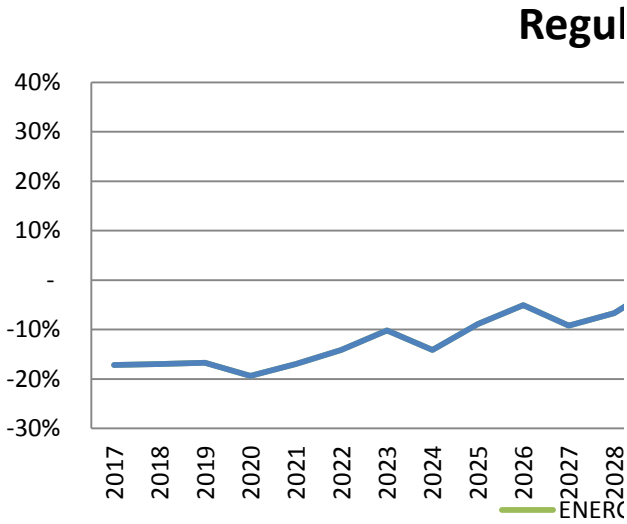
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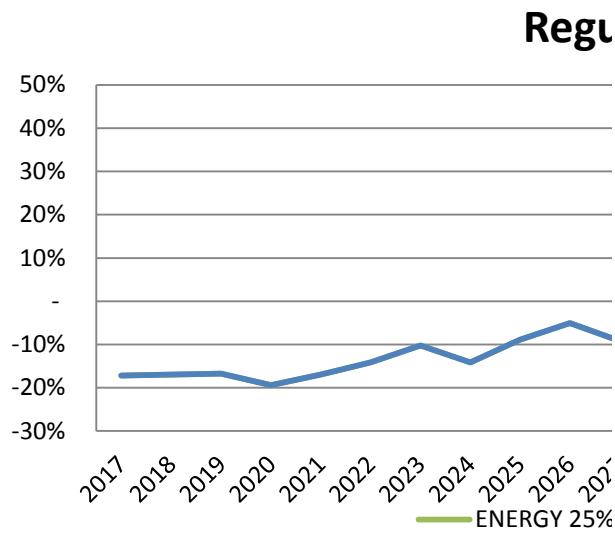
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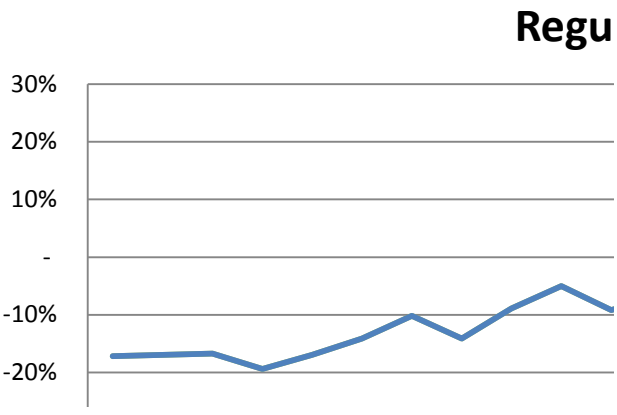
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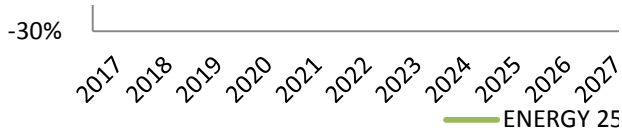

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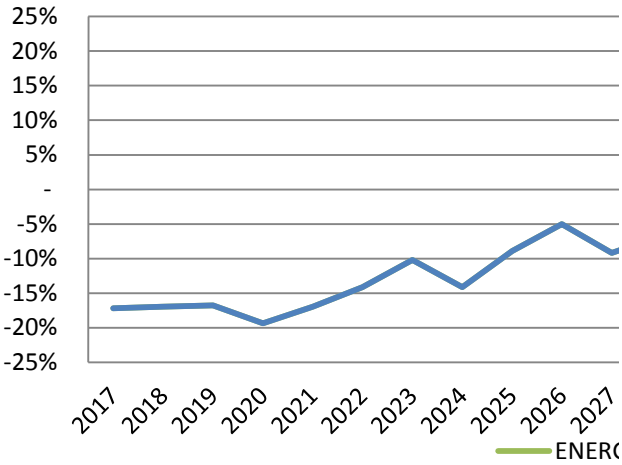

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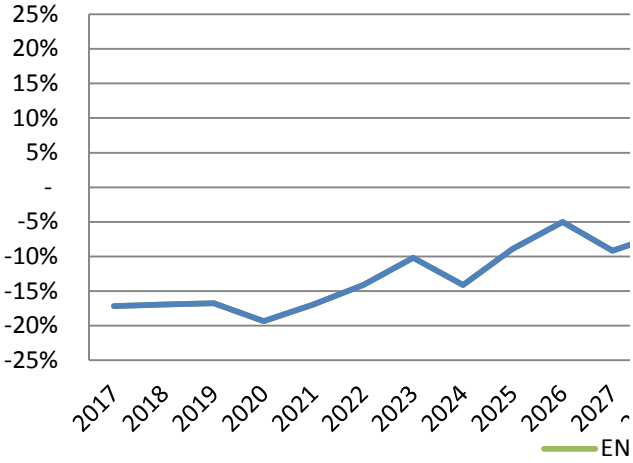

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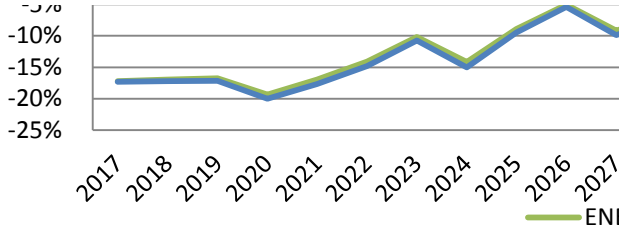
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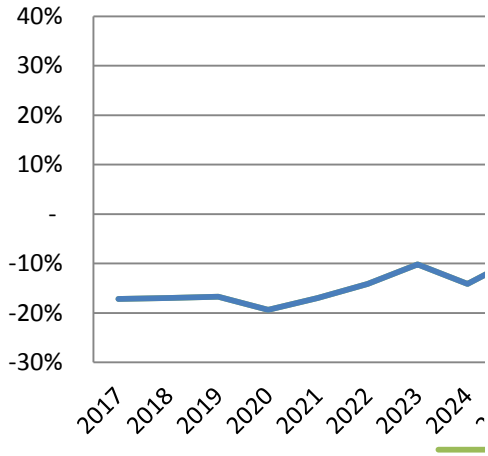
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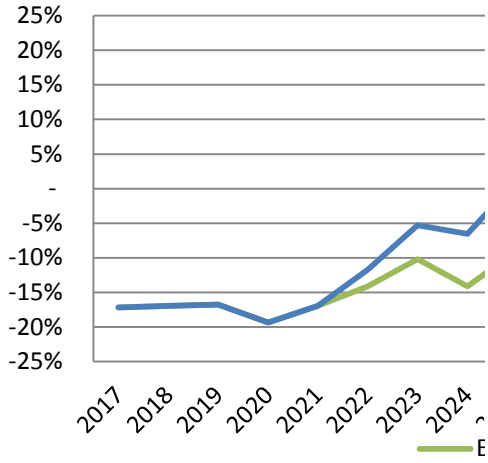
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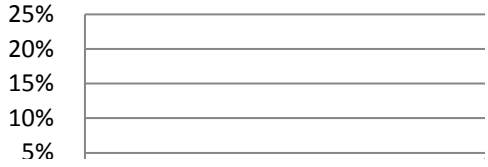
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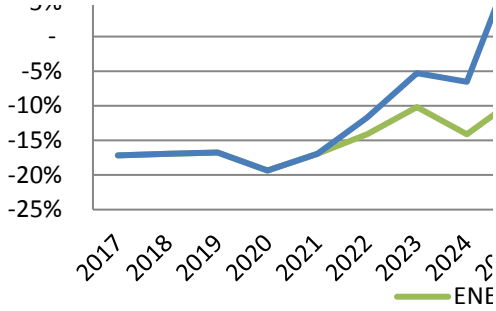
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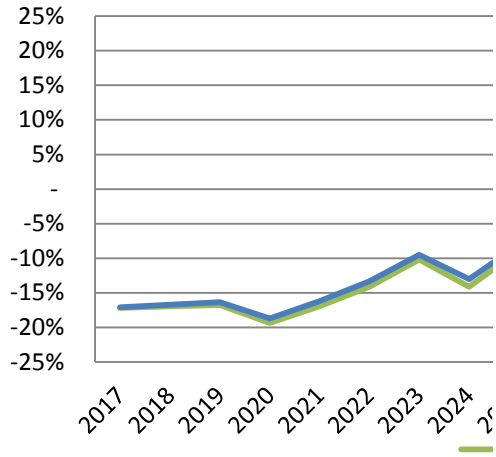
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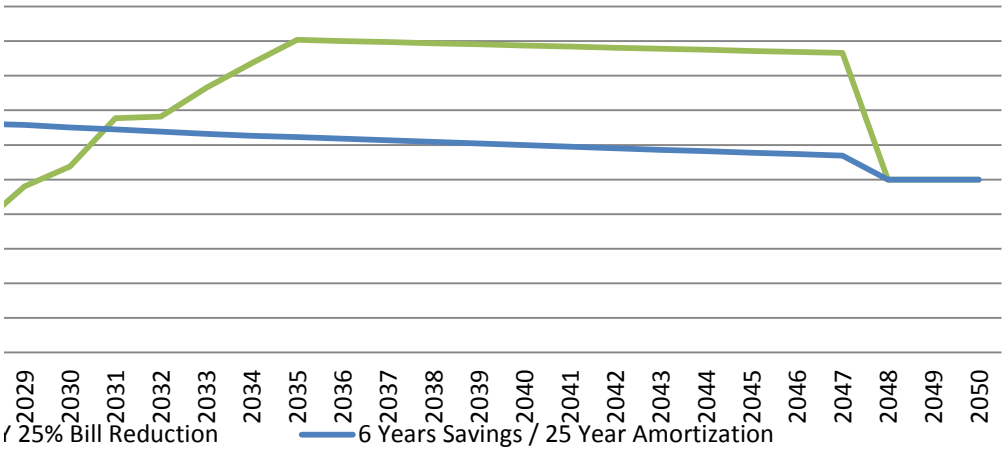

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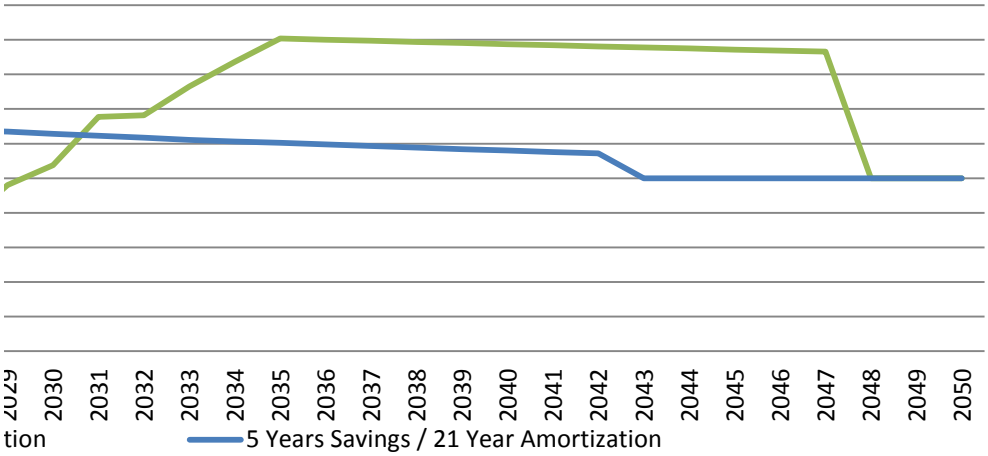

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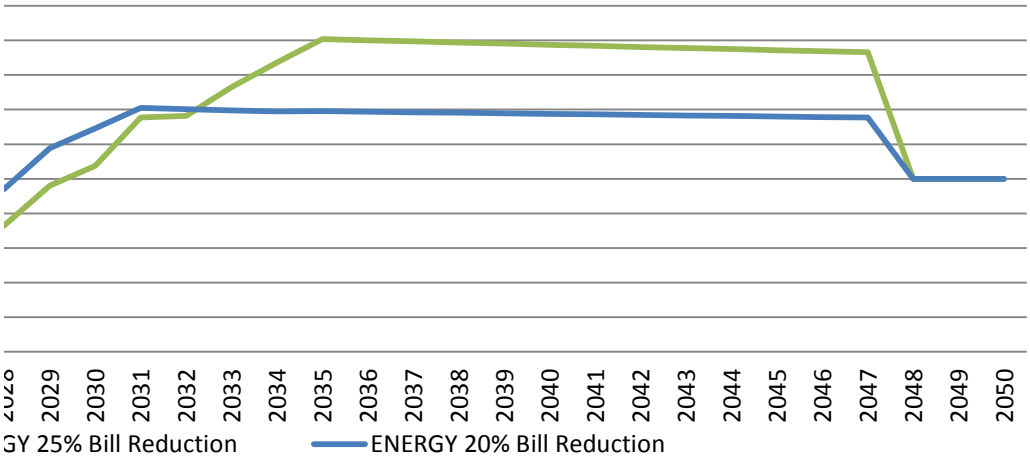

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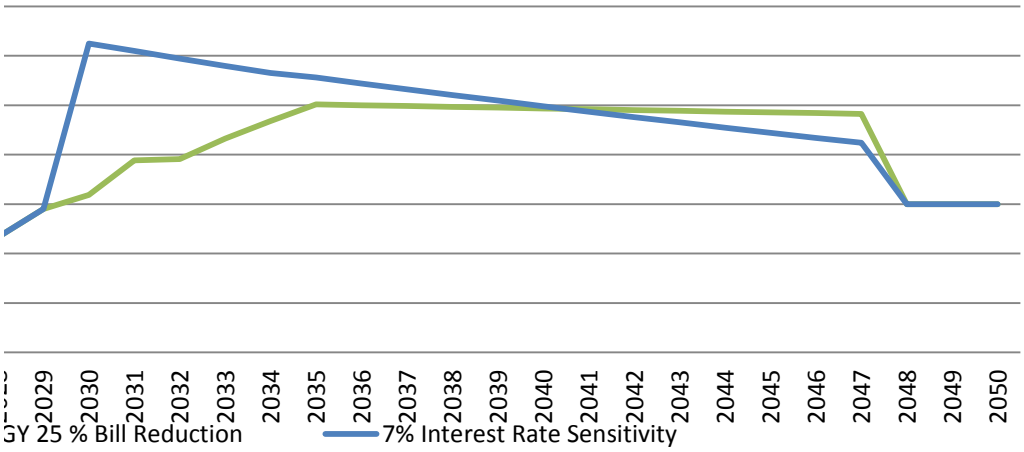

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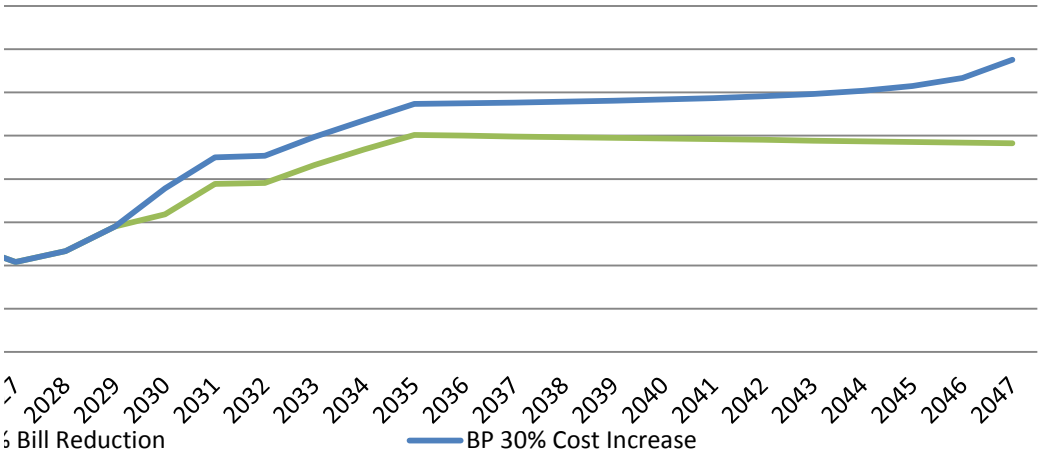

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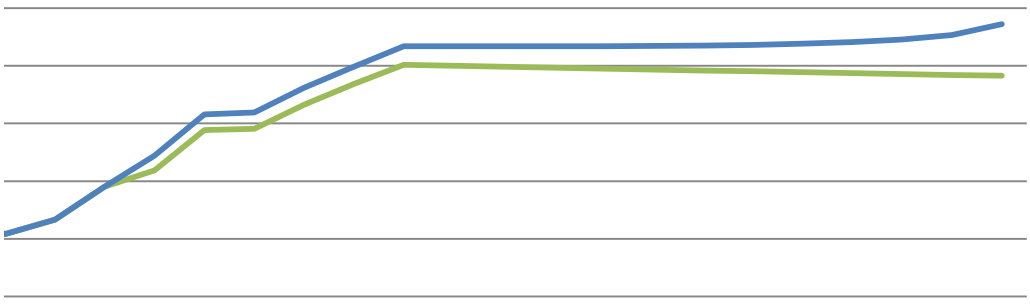

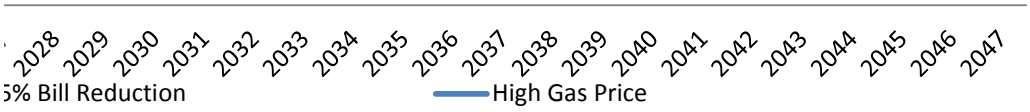

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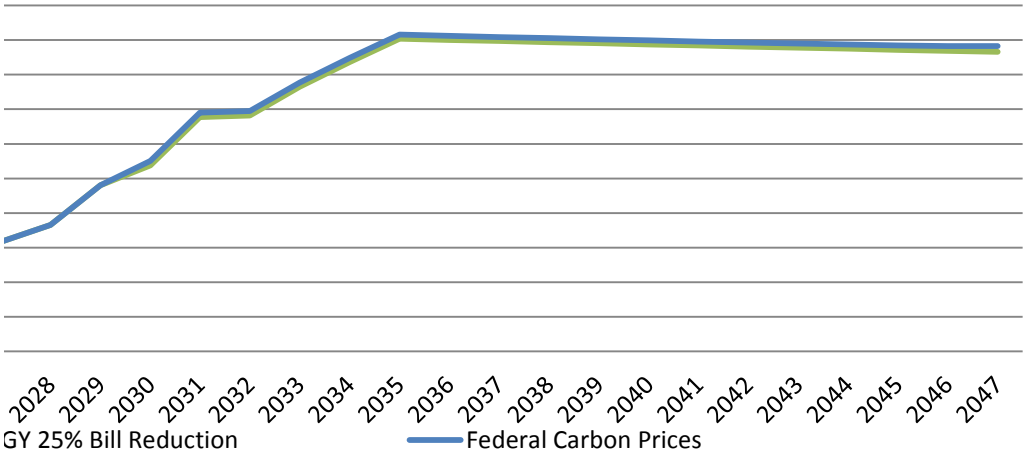

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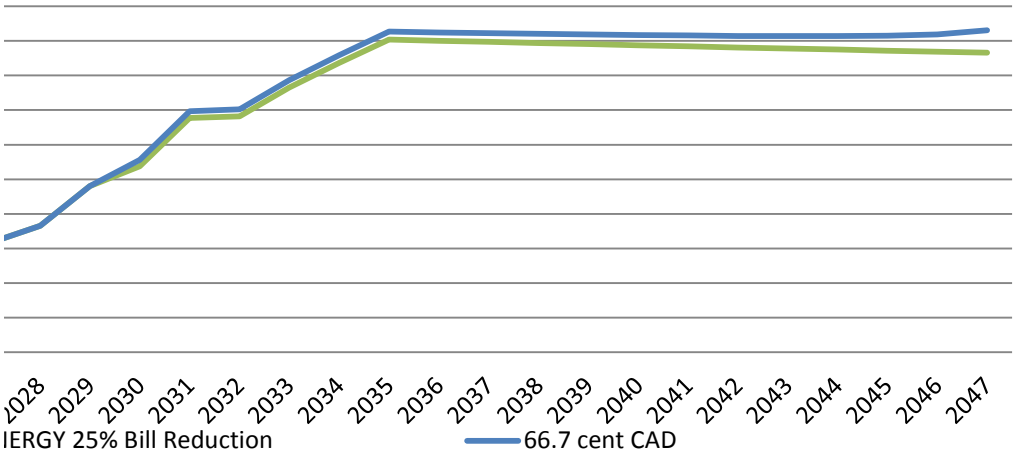

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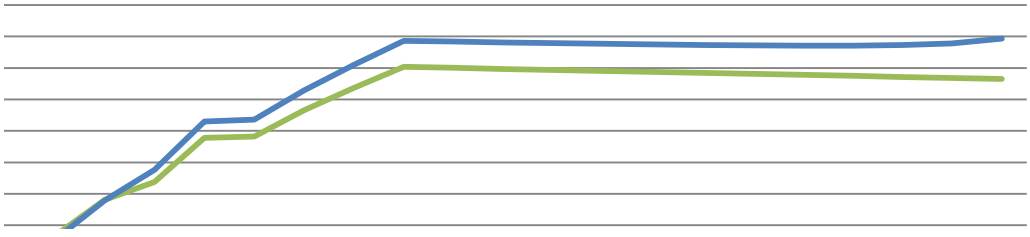
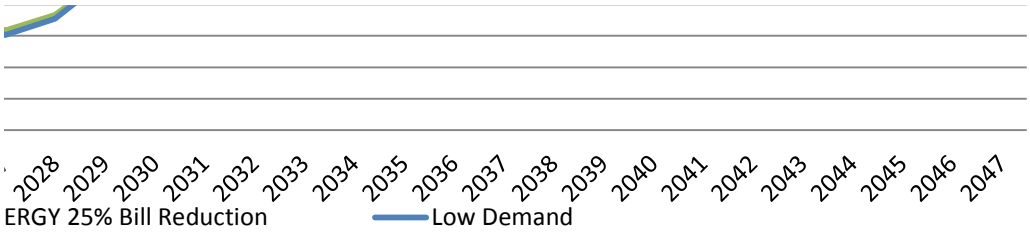
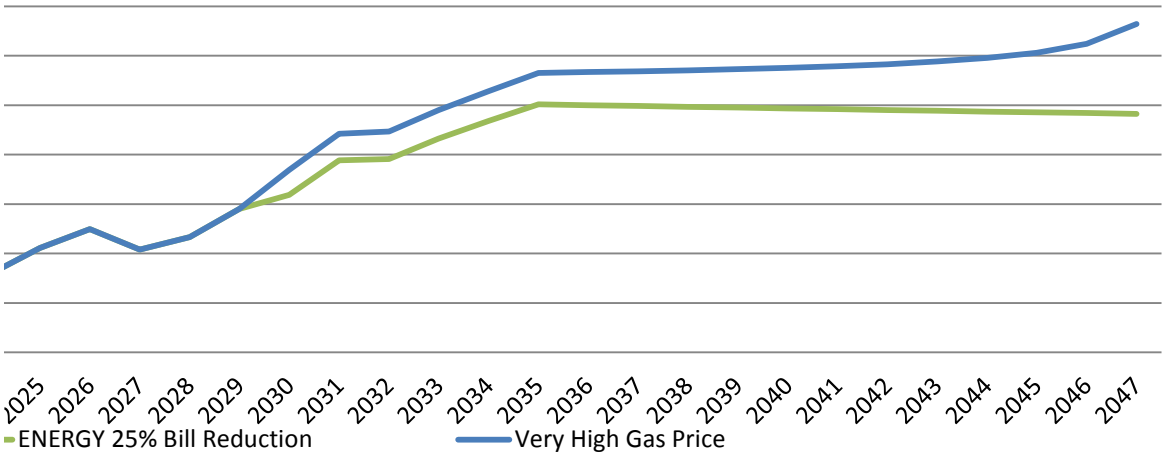
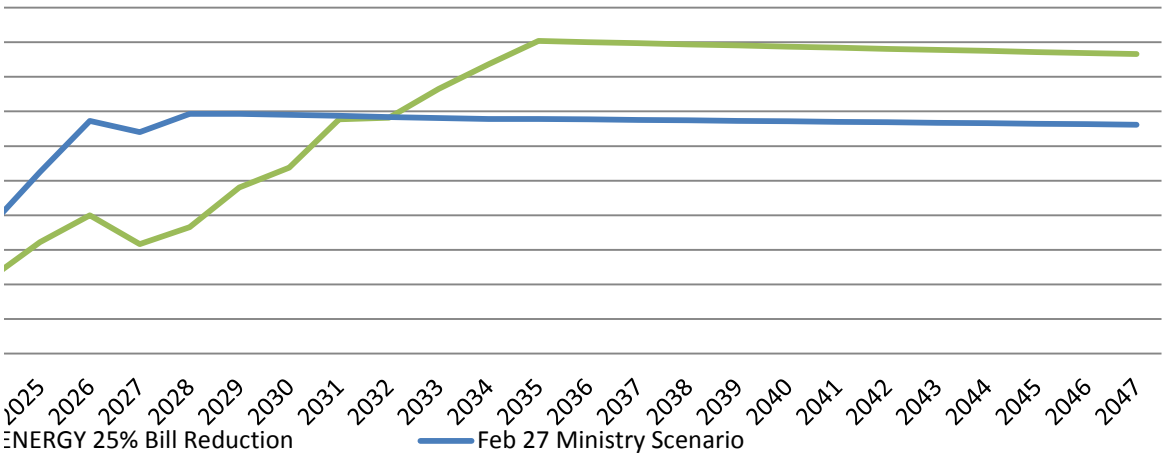




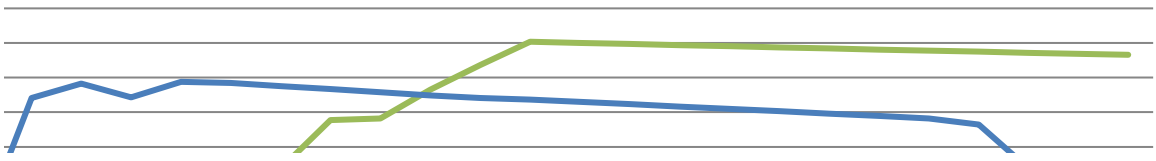
Regulatory Charge as % of Bill

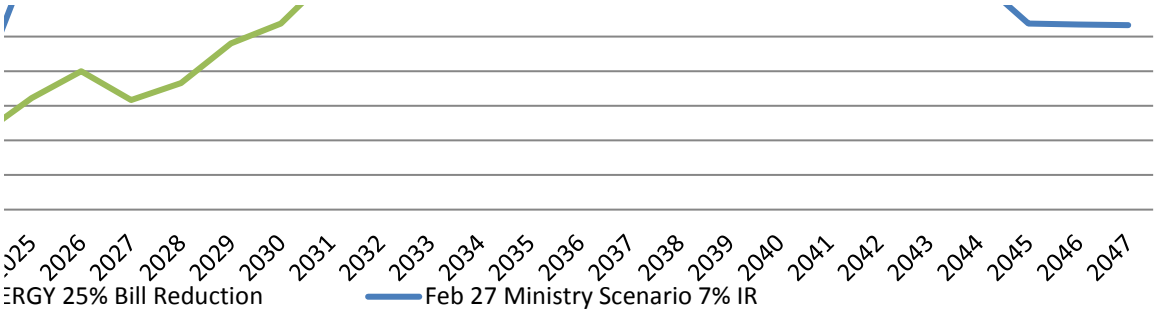


Regulatory Charge as % of Bill

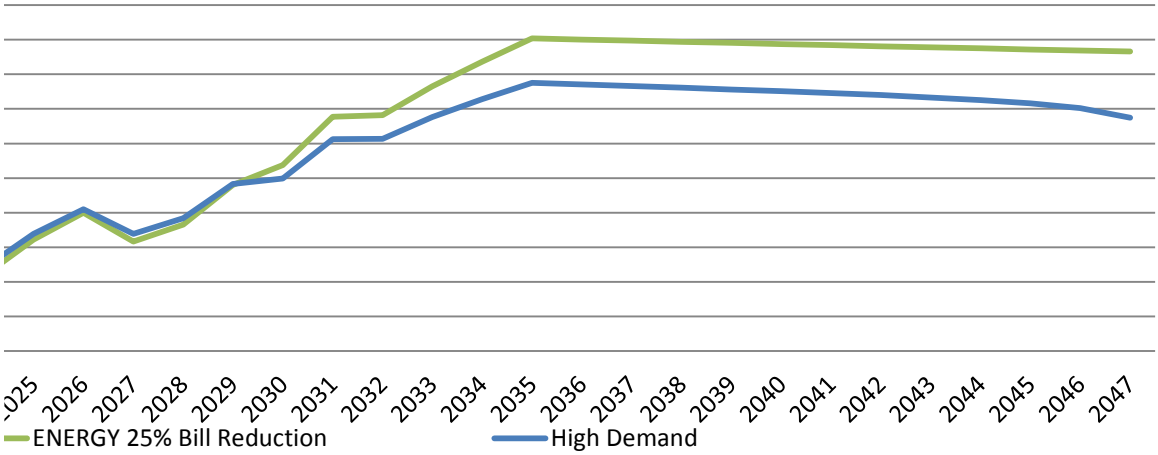


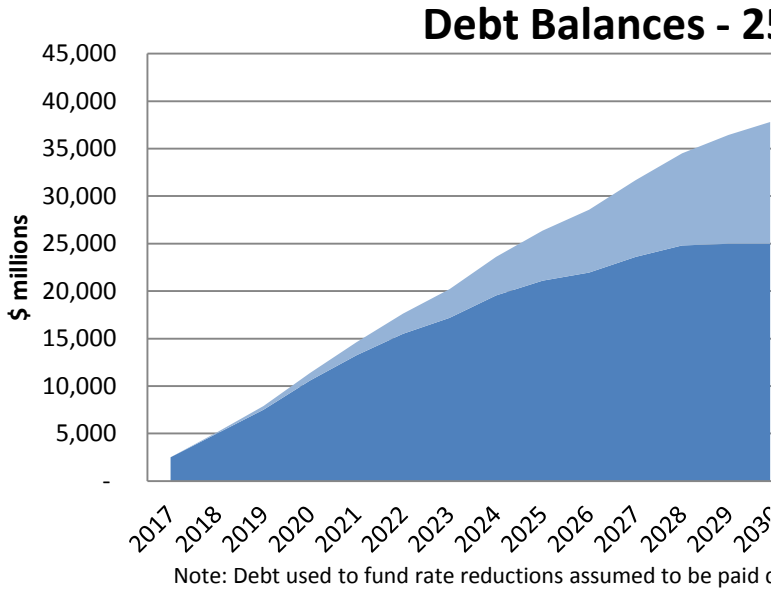
Regulatory Charge as % of Bill





Regulatory Charge as % of Bill

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$ millions
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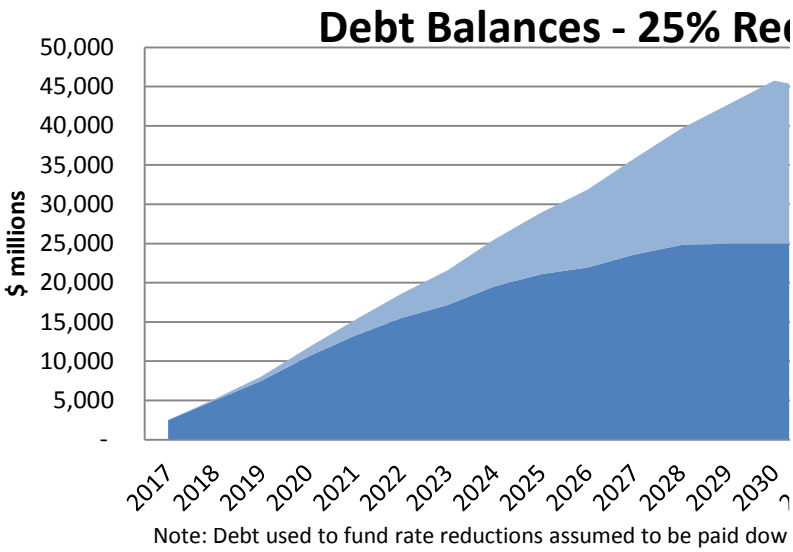
Note: Debt used to fund rate reductions assumed to be paid


Debt Balances - 25% Re
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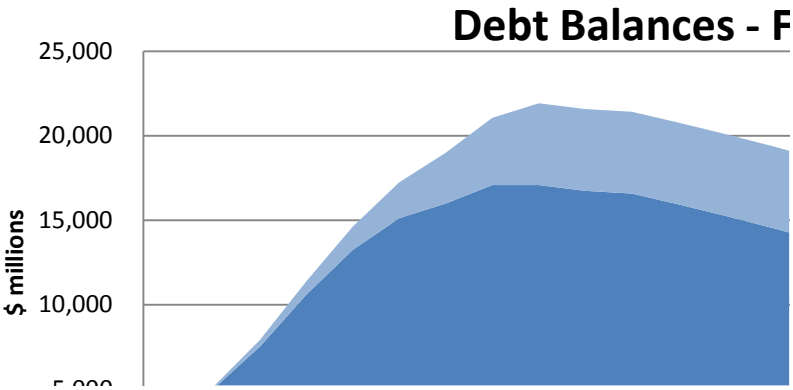
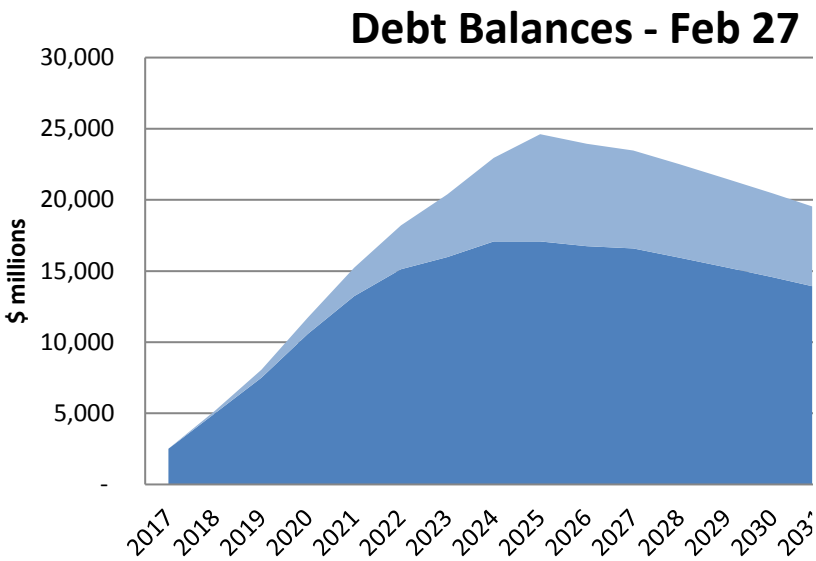
2030
Note: Debt used to fund rate reductions assumed to be paid dow

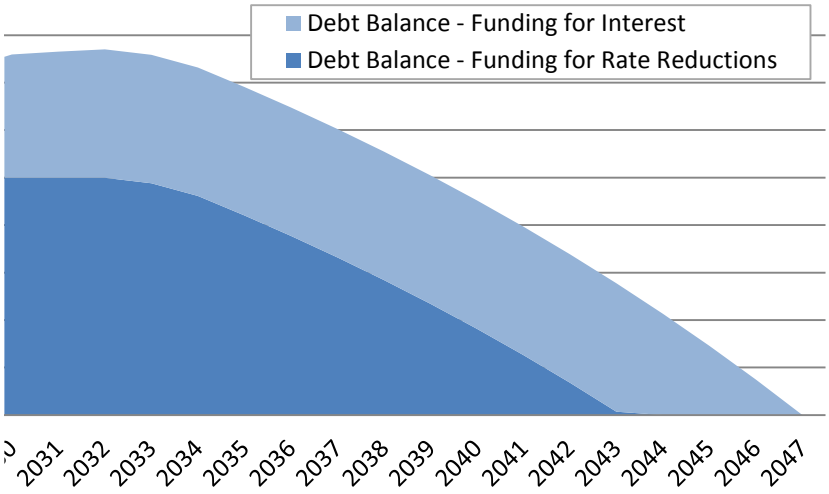

Debt Balances - F
25,000
20,000
15,000
10,000
$ millions

Note: Debt used to fund rate reductions assumed to be paid do



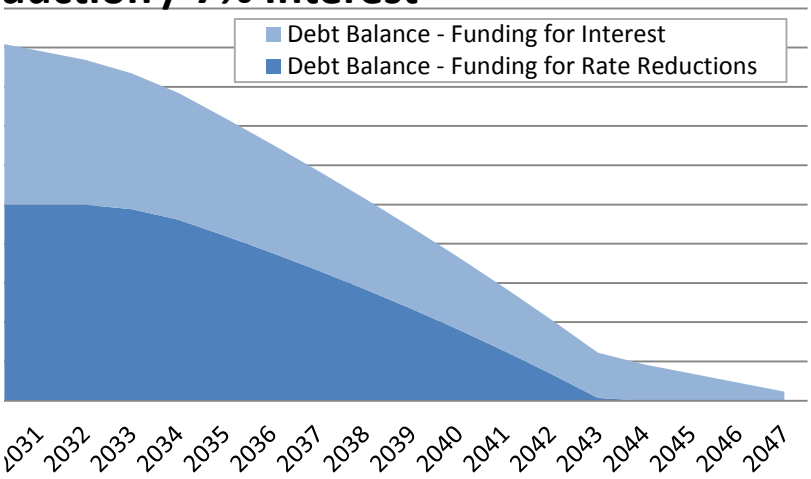
Note: Debt used to fund rate reductions assumed to be paid down

5% Reduction Base Case



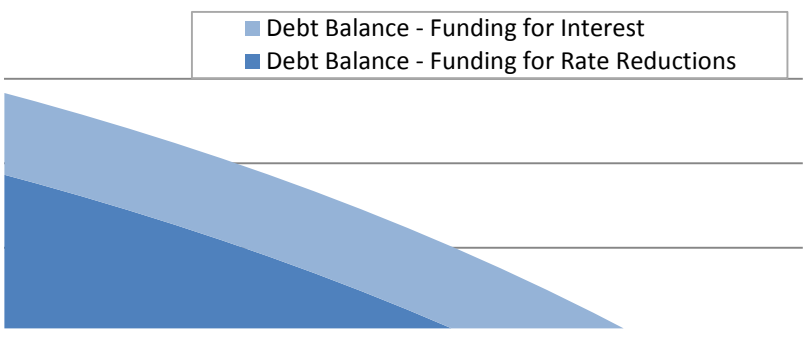
down first.

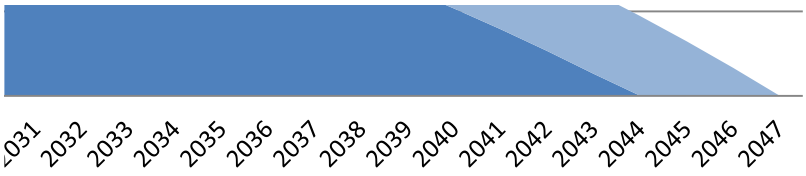
duction / 7% Interest



n first.

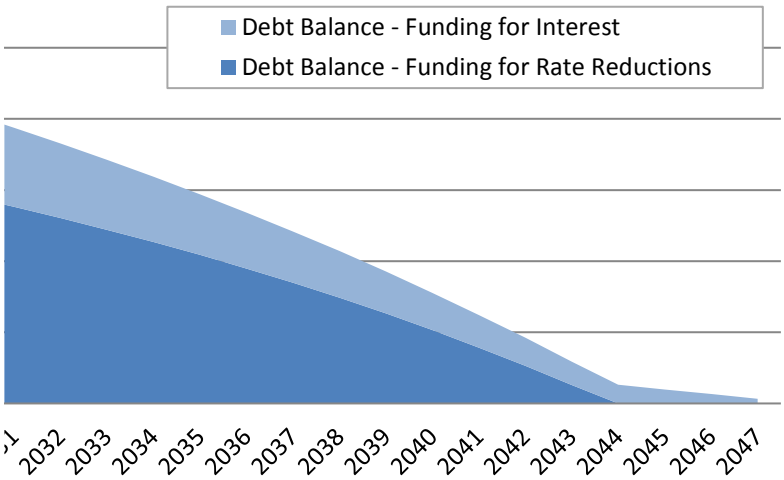
eb 27 Proposal



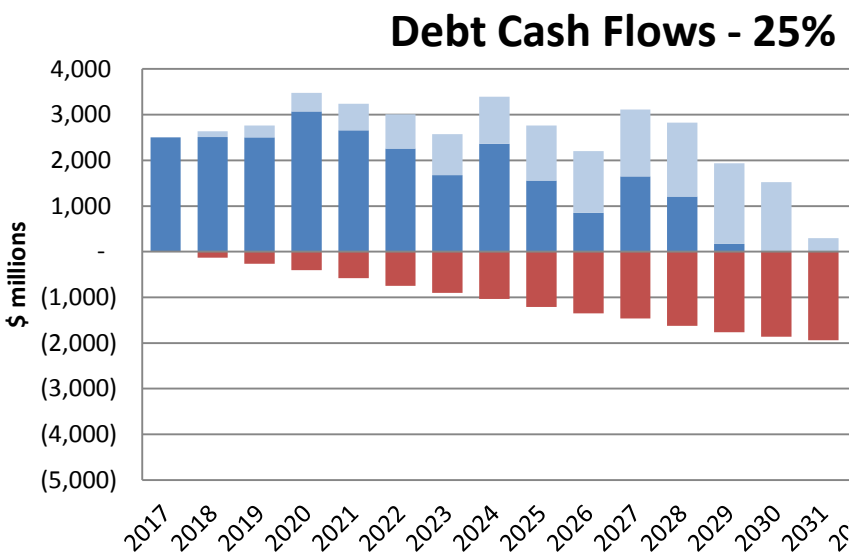


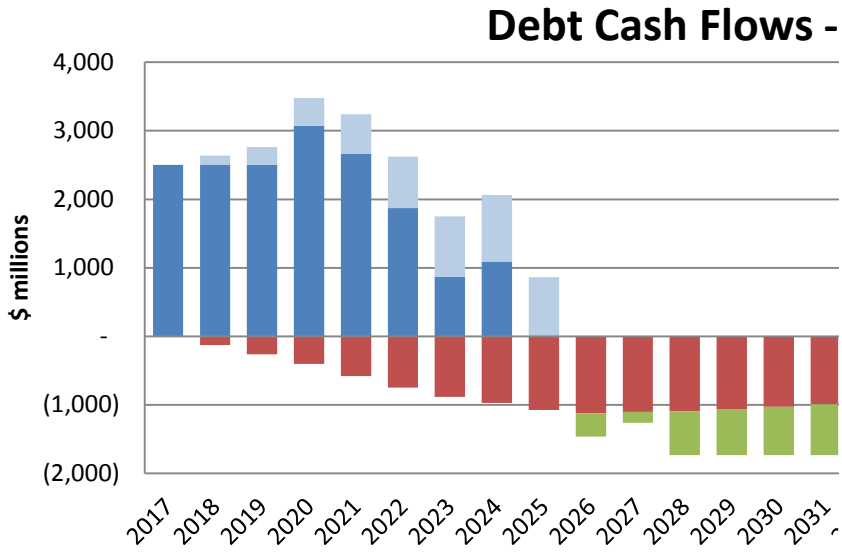
wn first.

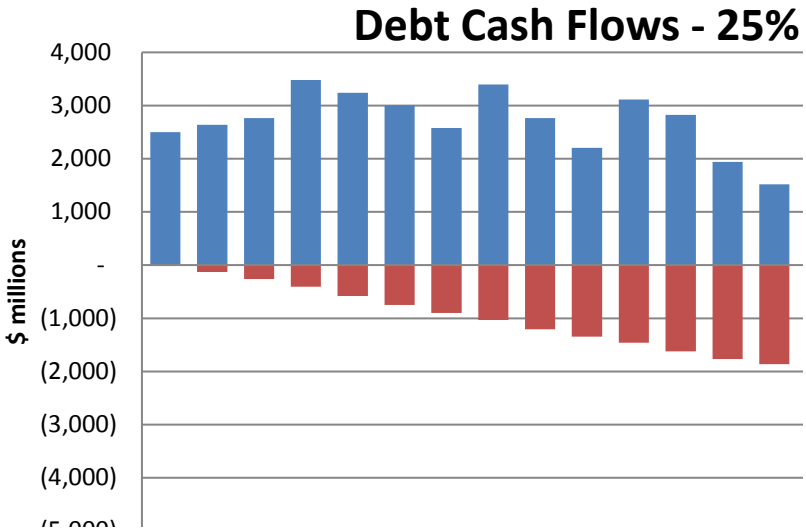
Proposal / 7% Interest

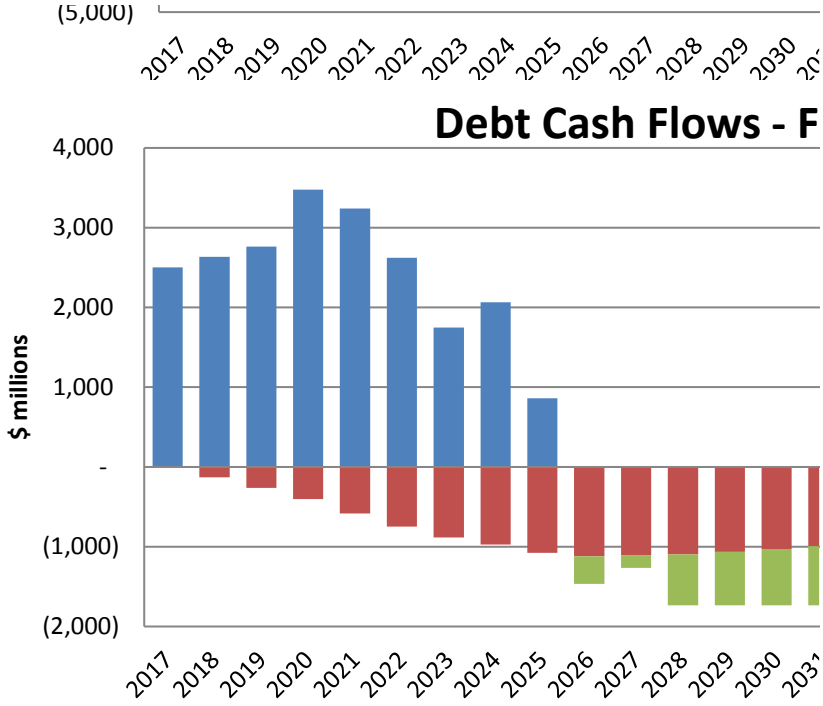


first.

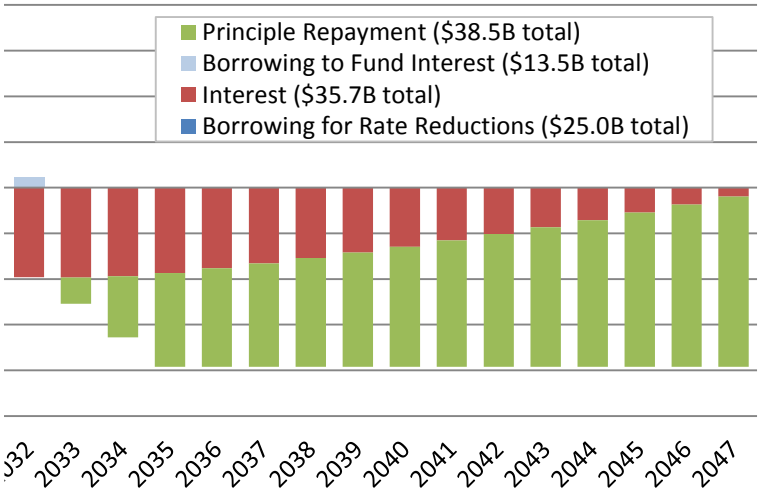

Debt Cash Flows - 25%
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
(3,000)
(4,000)
(5,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031


Debt Cash Flows -
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031

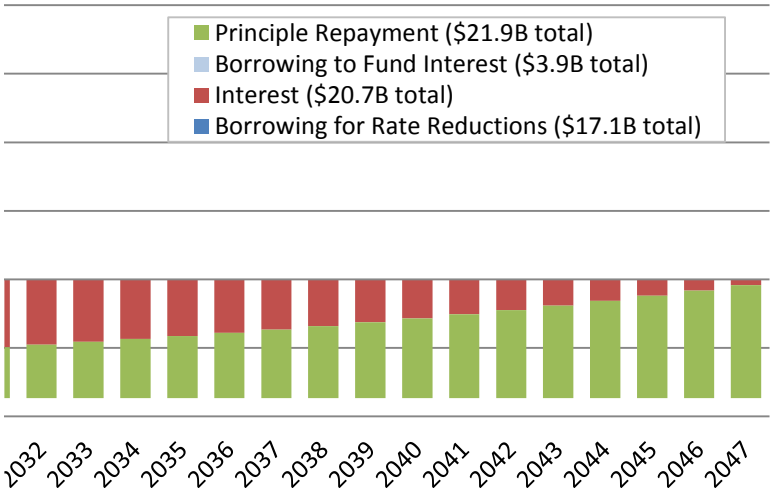

Debt Cash Flows - 25%
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
(3,000)
(4,000)


(5,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
Debt Cash Flows - F
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
$ millions
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030

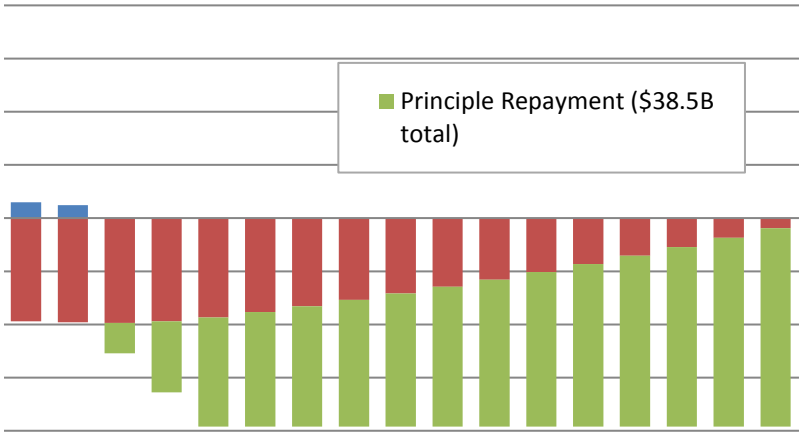
Reduction Base Case

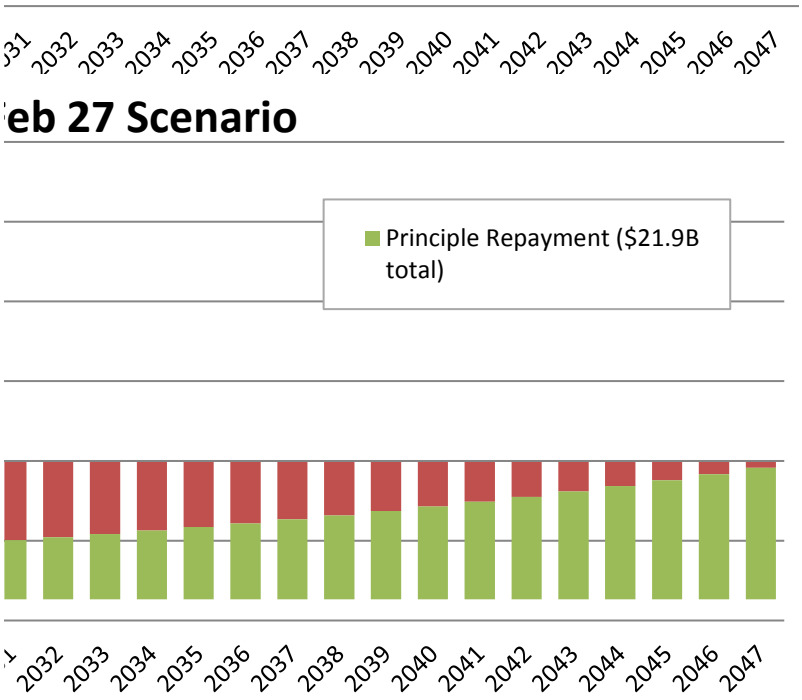


Feb 27 Proposal



Reduction Base Case




31 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047
eb 27 Scenario
Principle Repayment ($21.9B total)
1 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047

$ billions	ENE
Interest Rate	4%
Total Borrowing for Rate Reductions	25.0
Total Borrowing to Fund Interest	10.1
Total Debt	35.1
Total Interest Paid (Cost for Deferral Program	23.2

ERGY 25% Bill Reduction		Feb 27 Ministry Scenario		
5%	7%	4%	5%	7%
25.0	25.0	17.1	17.1	17.1
13.5	20.8	3.9	4.8	7.5
38.5	45.8	21.0	21.9	24.6
35.7	51.2	14.1	20.7	28.7

OpTime

Model period ending				**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending				2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter	**Constant**	**Unit**	**Total**	1	2	3	4	5	6	7	8	9
TIME RULER												
Model column counter		counter		1	2	3	4	5	6	7	8	9
First model column flag		flag	1	1	-	-	-	-	-	-	-	-
Model column total	200											
1st model column start date - Annual	01 Jan 2017	date										
Months per Operations Model period	12	months										
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Model period beginning		date		01 Jan 2017	01 Jan 2018	01 Jan 2019	01 Jan 2020	01 Jan 2021	01 Jan 2022	01 Jan 2023	01 Jan 2024	01 Jan 2025
Months per Operations Model period	12	months										
Model period beginning	-	date	- -	01 Jan 2017	01 Jan 2018	01 Jan 2019	01 Jan 2020	01 Jan 2021	01 Jan 2022	01 Jan 2023	01 Jan 2024	01 Jan 2025
Model period ending		date		31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
1st model column start date - Annual	01 Jan 2017	date										
First modelling column financial year number	2017	year #										
First modelling column financial year number	2017	year #										
Financial year end month number	12	month #										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Financial year ending		year #		2017	2018	2019	2020	2021	2022	2023	2024	2025
Financial year middle month number	6	month #										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
Model period mid-year date	Val, LUEC, PP	date		30 Jun 2017	30 Jun 2018	30 Jun 2019	30 Jun 2020	30 Jun 2021	30 Jun 2022	30 Jun 2023	30 Jun 2024	30 Jun 2025
FLAGS												
General												
Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date										
Length of Operations period	30	years										
Last Operations date	31 Jan 2052	date										
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Model period ending	-	date	- -	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20	31 Dec 21	31 Dec 22	31 Dec 23	31 Dec 24	31 Dec 25
Days in model period		days	72,683	-	365	365	366	365	365	365	366	365
Pre-COD Period												
Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
Pre-COD period flag		flag	5	1	1	1	1	1	-	-	-	-
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
Pre-COD period counter		counter		1	2	3	4	5	-	-	-	-
Pre-COD period total	5											
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
First Pre-COD period column flag		flag	1	1	-	-	-	-	-	-	-	-
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
Last Pre-COD period column flag		flag	1	-	-	-	-	1	-	-	-	-

OpTime

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
6	Model column counter	**Constant**	**Unit**	**Total**		1	2	3	4	5	6	7	8	9
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	1	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
72	Operations period flag		flag	30		-	-	-	-	-	1	1	1	1
74	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
75	Operations period counter		counter			-	-	-	-	-	1	2	3	4
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
79	First Operations period column flag		flag	1		-	-	-	-	-	1	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**	**Total**		10	11	12	13	14	15	16	17	18
8	**TIME RULER**													
10	Model column counter		counter			10	11	12	13	14	15	16	17	18
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2026	01 Jan 2027	01 Jan 2028	01 Jan 2029	01 Jan 2030	01 Jan 2031	01 Jan 2032	01 Jan 2033	01 Jan 2034
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2026	01 Jan 2027	01 Jan 2028	01 Jan 2029	01 Jan 2030	01 Jan 2031	01 Jan 2032	01 Jan 2033	01 Jan 2034
21	Model period ending		date			31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2026	2027	2028	2029	2030	2031	2032	2033	2034
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2026	30 Jun 2027	30 Jun 2028	30 Jun 2029	30 Jun 2030	30 Jun 2031	30 Jun 2032	30 Jun 2033	30 Jun 2034
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 26	31 Dec 27	31 Dec 28	31 Dec 29	31 Dec 30	31 Dec 31	31 Dec 32	31 Dec 33	31 Dec 34
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**	**Total**		10	11	12	13	14	15	16	17	18
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
72	Operations period flag		flag	30		1	1	1	1	1	1	1	1	1
74	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
75	Operations period counter		counter			5	6	7	8	9	10	11	12	13
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**	**Total**		19	20	21	22	23	24	25	26	27
8	**TIME RULER**													
10	Model column counter		counter			19	20	21	22	23	24	25	26	27
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2035	01 Jan 2036	01 Jan 2037	01 Jan 2038	01 Jan 2039	01 Jan 2040	01 Jan 2041	01 Jan 2042	01 Jan 2043
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2035	01 Jan 2036	01 Jan 2037	01 Jan 2038	01 Jan 2039	01 Jan 2040	01 Jan 2041	01 Jan 2042	01 Jan 2043
21	Model period ending		date			31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2035	2036	2037	2038	2039	2040	2041	2042	2043
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2035	30 Jun 2036	30 Jun 2037	30 Jun 2038	30 Jun 2039	30 Jun 2040	30 Jun 2041	30 Jun 2042	30 Jun 2043
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 35	31 Dec 36	31 Dec 37	31 Dec 38	31 Dec 39	31 Dec 40	31 Dec 41	31 Dec 42	31 Dec 43
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3																		
4					Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		19	20	21	22	23	24	25	26	27
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
72					Operations period flag		flag	30		1	1	1	1	1	1	1	1	1
73																		
74					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
75					Operations period counter		counter			14	15	16	17	18	19	20	21	22
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**OpTime**													
2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3														
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5														
6	Model column counter	**Constant**	**Unit**	**Total**		28	29	30	31	32	33	34	35	36
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			28	29	30	31	32	33	34	35	36
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2044	01 Jan 2045	01 Jan 2046	01 Jan 2047	01 Jan 2048	01 Jan 2049	01 Jan 2050	01 Jan 2051	01 Jan 2052
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2044	01 Jan 2045	01 Jan 2046	01 Jan 2047	01 Jan 2048	01 Jan 2049	01 Jan 2050	01 Jan 2051	01 Jan 2052
21	Model period ending		date			31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2044	2045	2046	2047	2048	2049	2050	2051	2052
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2044	30 Jun 2045	30 Jun 2046	30 Jun 2047	30 Jun 2048	30 Jun 2049	30 Jun 2050	30 Jun 2051	30 Jun 2052
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 44	31 Dec 45	31 Dec 46	31 Dec 47	31 Dec 48	31 Dec 49	31 Dec 50	31 Dec 51	31 Dec 52
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3																		
4					Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		28	29	30	31	32	33	34	35	36
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
72					Operations period flag		flag	30		1	1	1	1	1	1	1	1	-
73																		
74					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
75					Operations period counter		counter			23	24	25	26	27	28	29	30	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	1	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**OpTime**													
2	**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3														
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5														
6	Model column counter	**Constant**	**Unit**	**Total**		37	38	39	40	41	42	43	44	45
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			37	38	39	40	41	42	43	44	45
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2053	01 Jan 2054	01 Jan 2055	01 Jan 2056	01 Jan 2057	01 Jan 2058	01 Jan 2059	01 Jan 2060	01 Jan 2061
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2053	01 Jan 2054	01 Jan 2055	01 Jan 2056	01 Jan 2057	01 Jan 2058	01 Jan 2059	01 Jan 2060	01 Jan 2061
21	Model period ending		date			31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2053	2054	2055	2056	2057	2058	2059	2060	2061
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2053	30 Jun 2054	30 Jun 2055	30 Jun 2056	30 Jun 2057	30 Jun 2058	30 Jun 2059	30 Jun 2060	30 Jun 2061
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 53	31 Dec 54	31 Dec 55	31 Dec 56	31 Dec 57	31 Dec 58	31 Dec 59	31 Dec 60	31 Dec 61
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
2	**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
6	Model column counter	**Constant**	**Unit**	**Total**		37	38	39	40	41	42	43	44	45
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
2	**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
4	Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
6	Model column counter	**Constant**	**Unit**	**Total**		46	47	48	49	50	51	52	53	54
8	**TIME RULER**													
10	Model column counter		counter			46	47	48	49	50	51	52	53	54
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2062	01 Jan 2063	01 Jan 2064	01 Jan 2065	01 Jan 2066	01 Jan 2067	01 Jan 2068	01 Jan 2069	01 Jan 2070
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2062	01 Jan 2063	01 Jan 2064	01 Jan 2065	01 Jan 2066	01 Jan 2067	01 Jan 2068	01 Jan 2069	01 Jan 2070
21	Model period ending		date			31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2062	2063	2064	2065	2066	2067	2068	2069	2070
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2062	30 Jun 2063	30 Jun 2064	30 Jun 2065	30 Jun 2066	30 Jun 2067	30 Jun 2068	30 Jun 2069	30 Jun 2070
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 62	31 Dec 63	31 Dec 64	31 Dec 65	31 Dec 66	31 Dec 67	31 Dec 68	31 Dec 69	31 Dec 70
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		46	47	48	49	50	51	52	53	54
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**OpTime**													
2	**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3														
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5														
6	Model column counter	**Constant**	**Unit**	**Total**		55	56	57	58	59	60	61	62	63
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			55	56	57	58	59	60	61	62	63
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2071	01 Jan 2072	01 Jan 2073	01 Jan 2074	01 Jan 2075	01 Jan 2076	01 Jan 2077	01 Jan 2078	01 Jan 2079
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2071	01 Jan 2072	01 Jan 2073	01 Jan 2074	01 Jan 2075	01 Jan 2076	01 Jan 2077	01 Jan 2078	01 Jan 2079
21	Model period ending		date			31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2071	2072	2073	2074	2075	2076	2077	2078	2079
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2071	30 Jun 2072	30 Jun 2073	30 Jun 2074	30 Jun 2075	30 Jun 2076	30 Jun 2077	30 Jun 2078	30 Jun 2079
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 71	31 Dec 72	31 Dec 73	31 Dec 74	31 Dec 75	31 Dec 76	31 Dec 77	31 Dec 78	31 Dec 79
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2	**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
6	Model column counter	**Constant**	**Unit**	**Total**		55	56	57	58	59	60	61	62	63
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
2	**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4	Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
6	Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
8	**TIME RULER**													
10	Model column counter		counter			64	65	66	67	68	69	70	71	72
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2080	01 Jan 2081	01 Jan 2082	01 Jan 2083	01 Jan 2084	01 Jan 2085	01 Jan 2086	01 Jan 2087	01 Jan 2088
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2080	01 Jan 2081	01 Jan 2082	01 Jan 2083	01 Jan 2084	01 Jan 2085	01 Jan 2086	01 Jan 2087	01 Jan 2088
21	Model period ending		date			31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2080	2081	2082	2083	2084	2085	2086	2087	2088
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2080	30 Jun 2081	30 Jun 2082	30 Jun 2083	30 Jun 2084	30 Jun 2085	30 Jun 2086	30 Jun 2087	30 Jun 2088
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 80	31 Dec 81	31 Dec 82	31 Dec 83	31 Dec 84	31 Dec 85	31 Dec 86	31 Dec 87	31 Dec 88
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
2	**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4	Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
6	Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
2	**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
6	Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80	81
8	**TIME RULER**													
10	Model column counter		counter			73	74	75	76	77	78	79	80	81
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2089	01 Jan 2090	01 Jan 2091	01 Jan 2092	01 Jan 2093	01 Jan 2094	01 Jan 2095	01 Jan 2096	01 Jan 2097
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2089	01 Jan 2090	01 Jan 2091	01 Jan 2092	01 Jan 2093	01 Jan 2094	01 Jan 2095	01 Jan 2096	01 Jan 2097
21	Model period ending		date			31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2089	2090	2091	2092	2093	2094	2095	2096	2097
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2089	30 Jun 2090	30 Jun 2091	30 Jun 2092	30 Jun 2093	30 Jun 2094	30 Jun 2095	30 Jun 2096	30 Jun 2097
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 89	31 Dec 90	31 Dec 91	31 Dec 92	31 Dec 93	31 Dec 94	31 Dec 95	31 Dec 96	31 Dec 97
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
2	**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
6	Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80	81
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**OpTime**													
2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3														
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5														
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			82	83	84	85	86	87	88	89	90
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2098	01 Jan 2099	01 Jan 2100	01 Jan 2101	01 Jan 2102	01 Jan 2103	01 Jan 2104	01 Jan 2105	01 Jan 2106
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2098	01 Jan 2099	01 Jan 2100	01 Jan 2101	01 Jan 2102	01 Jan 2103	01 Jan 2104	01 Jan 2105	01 Jan 2106
21	Model period ending		date			31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2098	2099	2100	2101	2102	2103	2104	2105	2106
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2098	30 Jun 2099	30 Jun 2100	30 Jun 2101	30 Jun 2102	30 Jun 2103	30 Jun 2104	30 Jun 2105	30 Jun 2106
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 98	31 Dec 99	31 Dec 00	31 Dec 01	31 Dec 02	31 Dec 03	31 Dec 04	31 Dec 05	31 Dec 06
47	Days in model period		days	72,683		365	365	365	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**OpTime**													
2	**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3														
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5														
6	Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			91	92	93	94	95	96	97	98	99
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2107	01 Jan 2108	01 Jan 2109	01 Jan 2110	01 Jan 2111	01 Jan 2112	01 Jan 2113	01 Jan 2114	01 Jan 2115
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2107	01 Jan 2108	01 Jan 2109	01 Jan 2110	01 Jan 2111	01 Jan 2112	01 Jan 2113	01 Jan 2114	01 Jan 2115
21	Model period ending		date			31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2107	2108	2109	2110	2111	2112	2113	2114	2115
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2107	30 Jun 2108	30 Jun 2109	30 Jun 2110	30 Jun 2111	30 Jun 2112	30 Jun 2113	30 Jun 2114	30 Jun 2115
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 07	31 Dec 08	31 Dec 09	31 Dec 10	31 Dec 11	31 Dec 12	31 Dec 13	31 Dec 14	31 Dec 15
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
2	**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
4	Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
6	Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
8	**TIME RULER**													
10	Model column counter		counter			100	101	102	103	104	105	106	107	108
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2116	01 Jan 2117	01 Jan 2118	01 Jan 2119	01 Jan 2120	01 Jan 2121	01 Jan 2122	01 Jan 2123	01 Jan 2124
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2116	01 Jan 2117	01 Jan 2118	01 Jan 2119	01 Jan 2120	01 Jan 2121	01 Jan 2122	01 Jan 2123	01 Jan 2124
21	Model period ending		date			31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2116	2117	2118	2119	2120	2121	2122	2123	2124
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2116	30 Jun 2117	30 Jun 2118	30 Jun 2119	30 Jun 2120	30 Jun 2121	30 Jun 2122	30 Jun 2123	30 Jun 2124
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20	31 Dec 21	31 Dec 22	31 Dec 23	31 Dec 24
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
2	**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
4	Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
6	Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**OpTime**													
2	**Model period ending**					**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3														
4	Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5														
6	Model column counter	**Constant**	**Unit**	**Total**		109	110	111	112	113	114	115	116	117
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			109	110	111	112	113	114	115	116	117
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2125	01 Jan 2126	01 Jan 2127	01 Jan 2128	01 Jan 2129	01 Jan 2130	01 Jan 2131	01 Jan 2132	01 Jan 2133
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2125	01 Jan 2126	01 Jan 2127	01 Jan 2128	01 Jan 2129	01 Jan 2130	01 Jan 2131	01 Jan 2132	01 Jan 2133
21	Model period ending		date			31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2125	2126	2127	2128	2129	2130	2131	2132	2133
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2125	30 Jun 2126	30 Jun 2127	30 Jun 2128	30 Jun 2129	30 Jun 2130	30 Jun 2131	30 Jun 2132	30 Jun 2133
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 25	31 Dec 26	31 Dec 27	31 Dec 28	31 Dec 29	31 Dec 30	31 Dec 31	31 Dec 32	31 Dec 33
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		109	110	111	112	113	114	115	116	117
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**OpTime**													
2	**Model period ending**					**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3														
4	Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5														
6	Model column counter	**Constant**	**Unit**	**Total**		118	119	120	121	122	123	124	125	126
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			118	119	120	121	122	123	124	125	126
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2134	01 Jan 2135	01 Jan 2136	01 Jan 2137	01 Jan 2138	01 Jan 2139	01 Jan 2140	01 Jan 2141	01 Jan 2142
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2134	01 Jan 2135	01 Jan 2136	01 Jan 2137	01 Jan 2138	01 Jan 2139	01 Jan 2140	01 Jan 2141	01 Jan 2142
21	Model period ending		date			31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2134	2135	2136	2137	2138	2139	2140	2141	2142
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2134	30 Jun 2135	30 Jun 2136	30 Jun 2137	30 Jun 2138	30 Jun 2139	30 Jun 2140	30 Jun 2141	30 Jun 2142
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 34	31 Dec 35	31 Dec 36	31 Dec 37	31 Dec 38	31 Dec 39	31 Dec 40	31 Dec 41	31 Dec 42
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		118	119	120	121	122	123	124	125	126
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
7																		
8	**TIME RULER**																	
9																		
10					Model column counter		counter			127	128	129	130	131	132	133	134	135
11					First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12					Model column total	200												
13																		
14					1st model column start date - Annual	01 Jan 2017	date											
15					Months per Operations Model period	12	months											
16					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17					Model period beginning		date			01 Jan 2143	01 Jan 2144	01 Jan 2145	01 Jan 2146	01 Jan 2147	01 Jan 2148	01 Jan 2149	01 Jan 2150	01 Jan 2151
18																		
19					Months per Operations Model period	12	months											
20					Model period beginning	-	date	-	-	01 Jan 2143	01 Jan 2144	01 Jan 2145	01 Jan 2146	01 Jan 2147	01 Jan 2148	01 Jan 2149	01 Jan 2150	01 Jan 2151
21					Model period ending		date			31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
22																		
23					1st model column start date - Annual	01 Jan 2017	date											
24					First modelling column financial year number	2017	year #											
25																		
26					First modelling column financial year number	2017	year #											
27					Financial year end month number	12	month #											
28					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
29					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30					Financial year ending		year #			2143	2144	2145	2146	2147	2148	2149	2150	2151
31																		
32					Financial year middle month number	6	month #											
33					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
34					Model period mid-year date	Val, LUEC, PP	date			30 Jun 2143	30 Jun 2144	30 Jun 2145	30 Jun 2146	30 Jun 2147	30 Jun 2148	30 Jun 2149	30 Jun 2150	30 Jun 2151
35																		
36																		
37																		
38																		
39	**FLAGS**																	
40		**General**																
41					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42					Length of Operations period	30	years											
43					Last Operations date	31 Jan 2052	date											
44																		
45					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46					Model period ending	-	date	-	-	31 Dec 43	31 Dec 44	31 Dec 45	31 Dec 46	31 Dec 47	31 Dec 48	31 Dec 49	31 Dec 50	31 Dec 51
47					Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48																		
49		**Pre-COD Period**																
50					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
52					Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53																		
54					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55					Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56					Pre-COD period total	5												
57																		
58					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59					First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60																		
61					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62					Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63																		

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
7																		
8	**TIME RULER**																	
9																		
10					Model column counter		counter			136	137	138	139	140	141	142	143	144
11					First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12					Model column total	200												
13																		
14					1st model column start date - Annual	01 Jan 2017	date											
15					Months per Operations Model period	12	months											
16					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17					Model period beginning		date			01 Jan 2152	01 Jan 2153	01 Jan 2154	01 Jan 2155	01 Jan 2156	01 Jan 2157	01 Jan 2158	01 Jan 2159	01 Jan 2160
18																		
19					Months per Operations Model period	12	months											
20					Model period beginning	-	date	-	-	01 Jan 2152	01 Jan 2153	01 Jan 2154	01 Jan 2155	01 Jan 2156	01 Jan 2157	01 Jan 2158	01 Jan 2159	01 Jan 2160
21					Model period ending		date			31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
22																		
23					1st model column start date - Annual	01 Jan 2017	date											
24					First modelling column financial year number	2017	year #											
25																		
26					First modelling column financial year number	2017	year #											
27					Financial year end month number	12	month #											
28					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
29					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30					Financial year ending		year #			2152	2153	2154	2155	2156	2157	2158	2159	2160
31																		
32					Financial year middle month number	6	month #											
33					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
34					Model period mid-year date	Val, LUEC, PP	date			30 Jun 2152	30 Jun 2153	30 Jun 2154	30 Jun 2155	30 Jun 2156	30 Jun 2157	30 Jun 2158	30 Jun 2159	30 Jun 2160
35																		
36																		
37																		
38																		
39	**FLAGS**																	
40		**General**																
41					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42					Length of Operations period	30	years											
43					Last Operations date	31 Jan 2052	date											
44																		
45					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46					Model period ending	-	date	-	-	31 Dec 52	31 Dec 53	31 Dec 54	31 Dec 55	31 Dec 56	31 Dec 57	31 Dec 58	31 Dec 59	31 Dec 60
47					Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48																		
49		**Pre-COD Period**																
50					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
52					Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53																		
54					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55					Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56					Pre-COD period total	5												
57																		
58					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59					First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60																		
61					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62					Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63																		

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**OpTime**													
2	**Model period ending**					**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3														
4	Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5														
6	Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			145	146	147	148	149	150	151	152	153
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2161	01 Jan 2162	01 Jan 2163	01 Jan 2164	01 Jan 2165	01 Jan 2166	01 Jan 2167	01 Jan 2168	01 Jan 2169
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2161	01 Jan 2162	01 Jan 2163	01 Jan 2164	01 Jan 2165	01 Jan 2166	01 Jan 2167	01 Jan 2168	01 Jan 2169
21	Model period ending		date			31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2161	2162	2163	2164	2165	2166	2167	2168	2169
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2161	30 Jun 2162	30 Jun 2163	30 Jun 2164	30 Jun 2165	30 Jun 2166	30 Jun 2167	30 Jun 2168	30 Jun 2169
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 61	31 Dec 62	31 Dec 63	31 Dec 64	31 Dec 65	31 Dec 66	31 Dec 67	31 Dec 68	31 Dec 69
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
2	**Model period ending**					**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
4	Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
6	Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**OpTime**													
2	**Model period ending**					**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3														
4	Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5														
6	Model column counter	**Constant**	**Unit**	**Total**		154	155	156	157	158	159	160	161	162
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			154	155	156	157	158	159	160	161	162
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2170	01 Jan 2171	01 Jan 2172	01 Jan 2173	01 Jan 2174	01 Jan 2175	01 Jan 2176	01 Jan 2177	01 Jan 2178
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2170	01 Jan 2171	01 Jan 2172	01 Jan 2173	01 Jan 2174	01 Jan 2175	01 Jan 2176	01 Jan 2177	01 Jan 2178
21	Model period ending		date			31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2170	2171	2172	2173	2174	2175	2176	2177	2178
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2170	30 Jun 2171	30 Jun 2172	30 Jun 2173	30 Jun 2174	30 Jun 2175	30 Jun 2176	30 Jun 2177	30 Jun 2178
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 70	31 Dec 71	31 Dec 72	31 Dec 73	31 Dec 74	31 Dec 75	31 Dec 76	31 Dec 77	31 Dec 78
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		154	155	156	157	158	159	160	161	162
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**OpTime**													
2	**Model period ending**					**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3														
4	Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5														
6	Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			163	164	165	166	167	168	169	170	171
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2179	01 Jan 2180	01 Jan 2181	01 Jan 2182	01 Jan 2183	01 Jan 2184	01 Jan 2185	01 Jan 2186	01 Jan 2187
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2179	01 Jan 2180	01 Jan 2181	01 Jan 2182	01 Jan 2183	01 Jan 2184	01 Jan 2185	01 Jan 2186	01 Jan 2187
21	Model period ending		date			31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2179	2180	2181	2182	2183	2184	2185	2186	2187
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2179	30 Jun 2180	30 Jun 2181	30 Jun 2182	30 Jun 2183	30 Jun 2184	30 Jun 2185	30 Jun 2186	30 Jun 2187
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 79	31 Dec 80	31 Dec 81	31 Dec 82	31 Dec 83	31 Dec 84	31 Dec 85	31 Dec 86	31 Dec 87
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
2	**Model period ending**					**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
4	Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
6	Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**OpTime**													
2	**Model period ending**					**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3														
4	Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5														
6	Model column counter	**Constant**	**Unit**	**Total**		172	173	174	175	176	177	178	179	180
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			172	173	174	175	176	177	178	179	180
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2188	01 Jan 2189	01 Jan 2190	01 Jan 2191	01 Jan 2192	01 Jan 2193	01 Jan 2194	01 Jan 2195	01 Jan 2196
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2188	01 Jan 2189	01 Jan 2190	01 Jan 2191	01 Jan 2192	01 Jan 2193	01 Jan 2194	01 Jan 2195	01 Jan 2196
21	Model period ending		date			31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2188	2189	2190	2191	2192	2193	2194	2195	2196
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2188	30 Jun 2189	30 Jun 2190	30 Jun 2191	30 Jun 2192	30 Jun 2193	30 Jun 2194	30 Jun 2195	30 Jun 2196
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 88	31 Dec 89	31 Dec 90	31 Dec 91	31 Dec 92	31 Dec 93	31 Dec 94	31 Dec 95	31 Dec 96
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
2	**Model period ending**					**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
4	Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
6	Model column counter	**Constant**	**Unit**	**Total**		172	173	174	175	176	177	178	179	180
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
2	**Model period ending**					**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
4	Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
6	Model column counter	**Constant**	**Unit**	**Total**		181	182	183	184	185	186	187	188	189
8	**TIME RULER**													
10	Model column counter		counter			181	182	183	184	185	186	187	188	189
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2197	01 Jan 2198	01 Jan 2199	01 Jan 2200	01 Jan 2201	01 Jan 2202	01 Jan 2203	01 Jan 2204	01 Jan 2205
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2197	01 Jan 2198	01 Jan 2199	01 Jan 2200	01 Jan 2201	01 Jan 2202	01 Jan 2203	01 Jan 2204	01 Jan 2205
21	Model period ending		date			31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2197	2198	2199	2200	2201	2202	2203	2204	2205
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2197	30 Jun 2198	30 Jun 2199	30 Jun 2200	30 Jun 2201	30 Jun 2202	30 Jun 2203	30 Jun 2204	30 Jun 2205
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 97	31 Dec 98	31 Dec 99	31 Dec 00	31 Dec 01	31 Dec 02	31 Dec 03	31 Dec 04	31 Dec 05
47	Days in model period		days	72,683		365	365	365	365	365	365	365	366	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
2	**Model period ending**					**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
4	Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
6	Model column counter	**Constant**	**Unit**	**Total**		181	182	183	184	185	186	187	188	189
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
2	**Model period ending**					**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
4	Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
6	Model column counter	**Constant**	**Unit**	**Total**		190	191	192	193	194	195	196	197	198
8	**TIME RULER**													
10	Model column counter		counter			190	191	192	193	194	195	196	197	198
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2206	01 Jan 2207	01 Jan 2208	01 Jan 2209	01 Jan 2210	01 Jan 2211	01 Jan 2212	01 Jan 2213	01 Jan 2214
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2206	01 Jan 2207	01 Jan 2208	01 Jan 2209	01 Jan 2210	01 Jan 2211	01 Jan 2212	01 Jan 2213	01 Jan 2214
21	Model period ending		date			31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2206	2207	2208	2209	2210	2211	2212	2213	2214
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2206	30 Jun 2207	30 Jun 2208	30 Jun 2209	30 Jun 2210	30 Jun 2211	30 Jun 2212	30 Jun 2213	30 Jun 2214
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 06	31 Dec 07	31 Dec 08	31 Dec 09	31 Dec 10	31 Dec 11	31 Dec 12	31 Dec 13	31 Dec 14
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

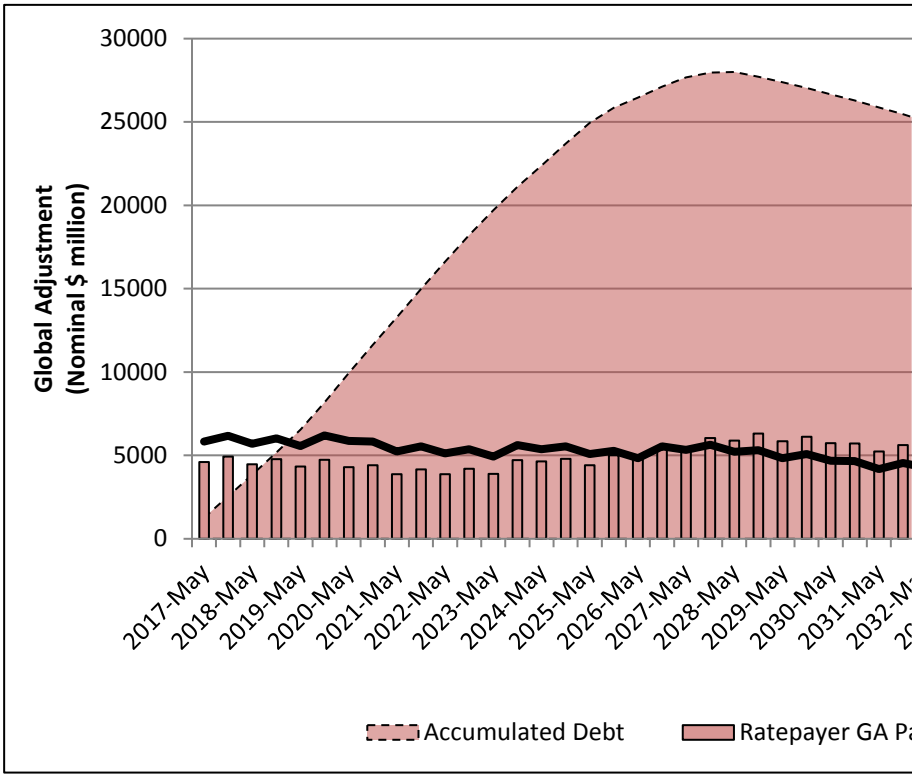
OpTime

	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
2	**Model period ending**					**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
4	Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
6	Model column counter	**Constant**	**Unit**	**Total**		190	191	192	193	194	195	196	197	198
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	GZ	HA
1	**OpTime**						
2	**Model period ending**					**31 Dec 2215**	**31 Dec 2216**
3							
4	Financial year ending					2215	2216
5							
6	Model column counter	**Constant**	**Unit**	**Total**		199	200
7							
8	**TIME RULER**						
9							
10	Model column counter		counter			199	200
11	First model column flag		flag	1		-	-
12	Model column total	200					
13							
14	1st model column start date - Annual	01 Jan 2017	date				
15	Months per Operations Model period	12	months				
16	First model column flag	-	flag	1	-	-	-
17	Model period beginning		date			01 Jan 2215	01 Jan 2216
18							
19	Months per Operations Model period	12	months				
20	Model period beginning	-	date	-	-	01 Jan 2215	01 Jan 2216
21	Model period ending		date			31 Dec 2215	31 Dec 2216
22							
23	1st model column start date - Annual	01 Jan 2017	date				
24	First modelling column financial year number	2017	year #				
25							
26	First modelling column financial year number	2017	year #				
27	Financial year end month number	12	month #				
28	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
29	First model column flag	-	flag	1	-	-	-
30	Financial year ending		year #			2215	2216
31							
32	Financial year middle month number	6	month #				
33	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2215	30 Jun 2216
35							
36							
37							
38							
39	**FLAGS**						
40	**General**						
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
42	Length of Operations period	30	years				
43	Last Operations date	31 Jan 2052	date				
44							
45	First model column flag	-	flag	1	-	-	-
46	Model period ending	-	date	-	-	31 Dec 15	31 Dec 16
47	Days in model period		days	72,683		365	366
48							
49	**Pre-COD Period**						
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
51	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
52	Pre-COD period flag		flag	5		-	-
53							
54	Pre-COD period flag	-	flag	5	-	-	-
55	Pre-COD period counter		counter			-	-
56	Pre-COD period total	5					
57							
58	Pre-COD period flag	-	flag	5	-	-	-
59	First Pre-COD period column flag		flag	1		-	-
60							
61	Pre-COD period flag	-	flag	5	-	-	-
62	Last Pre-COD period column flag		flag	1		-	
63							

	A	B	C	D	E	F	G	H	I	GZ	HA
1	**OpTime**										
2					**Model period ending**					**31 Dec 2215**	**31 Dec 2216**
3											
4					Financial year ending					2215	2216
5											
6					Model column counter	**Constant**	**Unit**	**Total**		199	200
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
65					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
66					COD / initial balance sheet flag		flag	1		-	-
67											
68					**Operations Period**						
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
70					Last Operations date	31 Jan 2052	date				
71					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
72					Operations period flag		flag	30		-	-
73											
74					Operations period flag	-	flag	30	-	-	-
75					Operations period counter		counter			-	-
76					Operations period total	30					
77											
78					Operations period flag	-	flag	30	-	-	-
79					First Operations period column flag		flag	1		-	-
80											
81					Operations period flag	-	flag	30	-	-	-
82					Last Operations period column flag		flag	1		-	
83											
84					**Revenue Contract or Regulated Period**						
85											
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
87					Length of Regulation period	-	years				
88					End of Regulation Date	31 Jan 2022	date				
89											
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
91					End of Regulation Date	31 Jan 2022	date				
92					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
93					Regulated Period flag		flag	-		-	-
94					Regulated Period Counter		counter			-	-

Change in bill with OFHP relative to bill without OFHP in 2017
YoY Increase in bill with OFHP 2018-2021
YoY Increase in bill with OFHP 2022+
Maximum increase in bill with OFHP above bill without OFHP in any year
Year to pay off debt
Class to which savings/costs accrue
Annual interest rate (nominal)
Amount of debt in November of final year ($ million, should be zero)
Maximum debt ($ million)
Total Interest Cost ($ million)

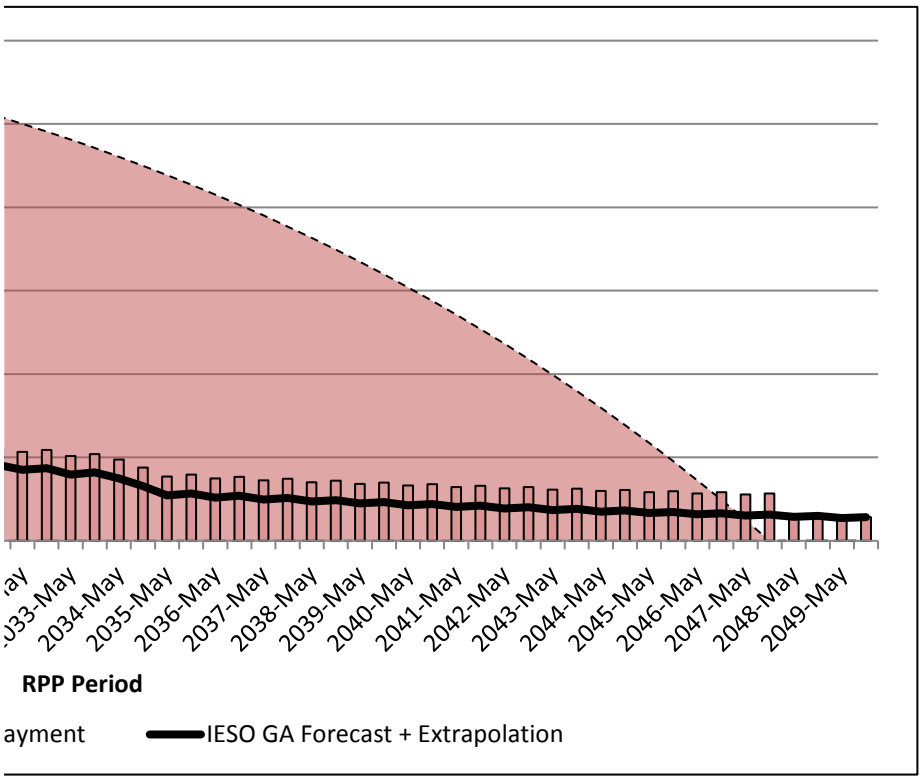


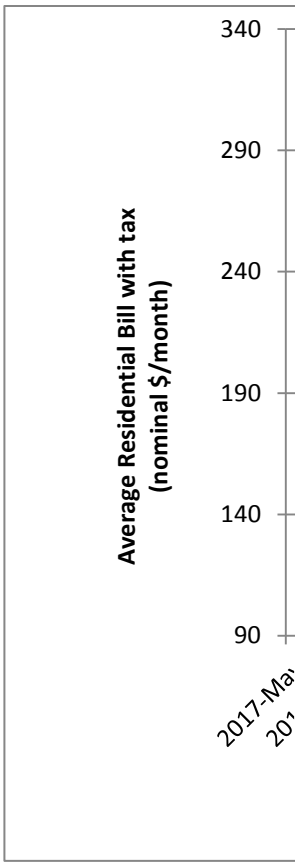
Global Impacts
$ nominal million
IESO GA Forecast + Extrapolation
Ratepayer GA Payment
Accumulated Debt
Interest on debt in previous period

Residential Bills (assuming 750 kWh/month)
nominal $/month
No OFHP
With 8% Rebate Only
With OFHP (GA financing, rebate, tax-basing)
Change from bill with no OFHP

Change from bill with no OFHP but with 8% rebate
Period-over-period change in bill with OFHP

-0.25		
0.02		
0.063423331	<-----	Change this so that maximum debt (C12) is the maximum amount that can be bor
0.025694809	<-----	Change this so that the amount of debt (shown in C11) in the final year (set in C6)
2047		
RPP Eligible		
0.05		
0		
28000		
26213		



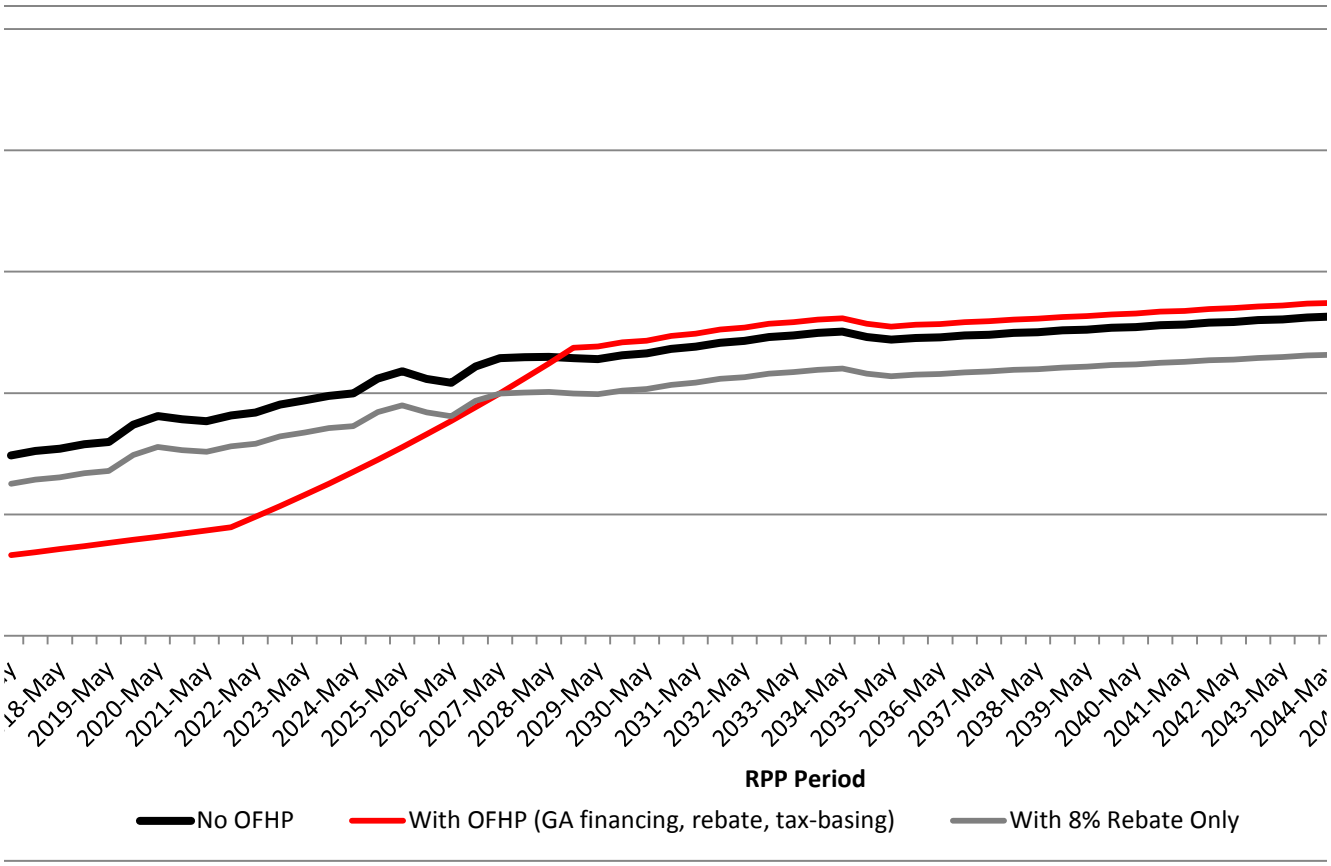


2017-May	2017-Nov	2018-May	2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov
5832	6172	5706	6029	5570	6199	5867	5835
4596	4926	4469	4787	4339	4738	4303	4403
1267	2544	3846	5185	6547	8174	9944	11627
0	32	64	97	131	165	206	251

2017-May	2017-Nov	2018-May	2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov
164	166	167	169	170	177	181	179
153	154	155	157	158	165	168	167
123	124	126	127	128	130	131	132
-25.0%	-25.1%	-24.7%	-24.8%	-24.5%	-26.8%	-27.6%	-26.3%

-19.3%	-19.4%	-19.0%	-19.1%	-18.8%	-21.3%	-22.0%	-20.6%
	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

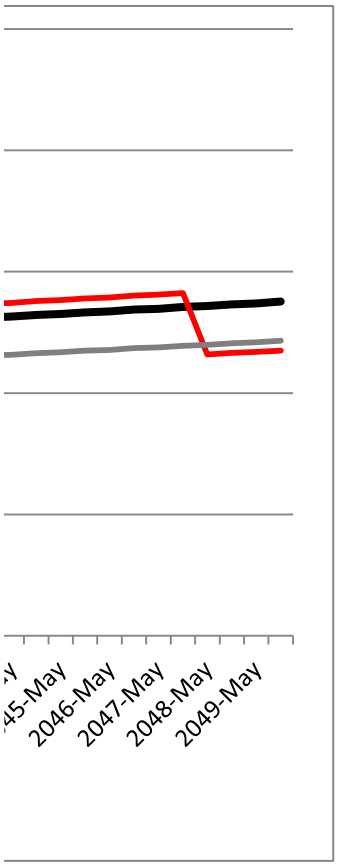
rrowed (e.g. $28 billion for OPG)
) is zero



2021-May	2021-Nov	2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
5228	5541	5127	5369	4939	5616	5365	5551
3875	4162	3883	4195	3893	4712	4635	4795
13274	14988	16611	18204	19710	21112	22376	23697
294	335	379	420	460	498	533	565

2021-May	2021-Nov	2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
178	181	182	185	187	189	190	196
166	168	169	172	174	176	176	182
133	135	139	143	148	153	158	163
-25.2%	-25.5%	-23.6%	-22.6%	-20.8%	-19.2%	-17.0%	-17.1%

-19.5%	-19.8%	-17.8%	-16.7%	-14.8%	-13.0%	-10.7%	-10.7%
1.0%	1.0%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%



2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov
5076	5277	4838	5551	5324	5640	5216	5317
4420	5004	4878	5566	5464	6036	5892	6304
24951	25855	26467	27121	27666	27969	28000	27721
599	630	653	669	685	699	707	707

2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov
199	196	194	201	204	205	205	204
185	182	181	187	190	190	190	190
168	173	179	184	190	196	202	209
-15.7%	-11.7%	-8.1%	-8.4%	-7.0%	-4.2%	-1.3%	2.1%

-9.3%	-4.9%	-1.1%	-1.4%	0.1%	3.0%	6.2%	9.9%
3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%

2029-May	2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
4826	5082	4687	4658	4173	4540	4253	4362
5861	6121	5742	5714	5241	5614	5342	5456
27386	27038	26667	26285	25880	25460	25015	24553
700	692	683	674	664	654	643	632

2029-May	2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
204	206	206	208	209	211	212	213
190	191	192	193	194	196	197	198
209	211	212	214	214	216	217	219
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.3%	0.8%	0.4%	0.9%	0.4%	0.8%	0.4%	0.7%

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May	2036-Nov
3972	4096	3740	3279	2730	2836	2598	2699
5081	5207	4865	4397	3858	3962	3737	3837
24065	23562	23032	22496	21937	21365	20766	20153
620	608	595	582	568	554	540	525

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May	2036-Nov
214	215	215	213	212	213	213	214
199	200	200	198	197	198	198	199
219	220	221	219	217	218	219	219
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.3%	0.5%	0.2%	-1.0%	-0.5%	0.3%	0.2%	0.3%

2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov
2473	2569	2353	2444	2240	2326	2132	2214
3624	3718	3516	3606	3414	3500	3318	3399
19511	18855	18168	17466	16732	15982	15199	14398
509	493	476	459	441	423	404	384

2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov
214	215	215	216	216	217	217	218
199	200	200	201	201	202	202	202
220	220	221	221	222	222	223	224
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	0.2%	0.3%

2041-May	2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
2029	2107	1931	2005	1837	1909	1749	1816
3228	3305	3142	3215	3061	3131	2985	3052
13562	12707	11817	10905	9957	8986	7976	6942
364	343	321	299	275	252	227	201

2041-May	2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
218	219	219	220	220	221	221	222
203	203	204	204	205	205	206	206
224	225	225	226	226	227	227	228
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	0.2%	0.3%

2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov	2048-May	2048-Nov
1664	1729	1584	1645	1507	1566	1434	1490
2914	2977	2846	2906	2783	2840	1434	1490
5868	4768	3626	2456	1243	0	0	0
175	148	120	92	62	31	0	0

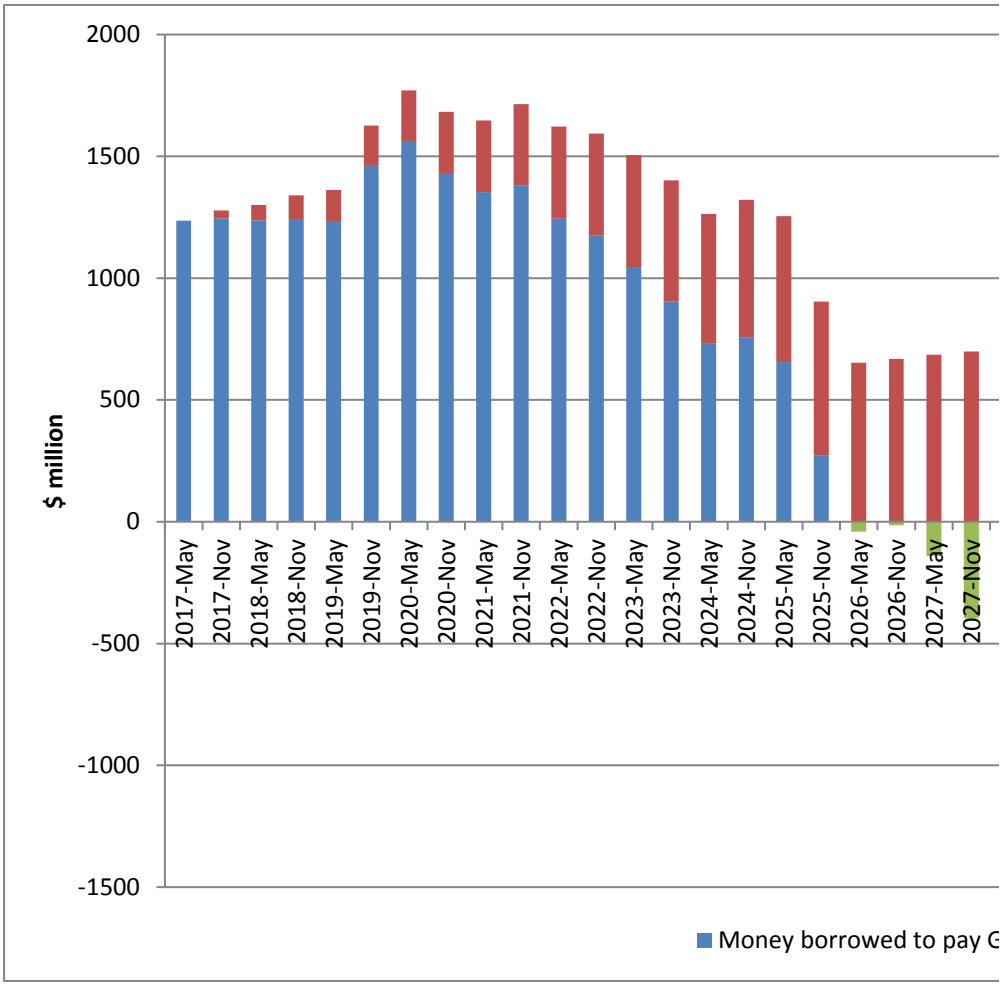
2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov	2048-May	2048-Nov
223	223	224	224	225	225	226	227
207	207	208	209	209	210	210	211
228	229	229	230	231	231	206	207
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	-8.8%	-8.8%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	-1.9%	-1.9%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	-11.0%	0.3%

2049-May	2049-Nov
1365	1418
1365	1418
0	0
0	0

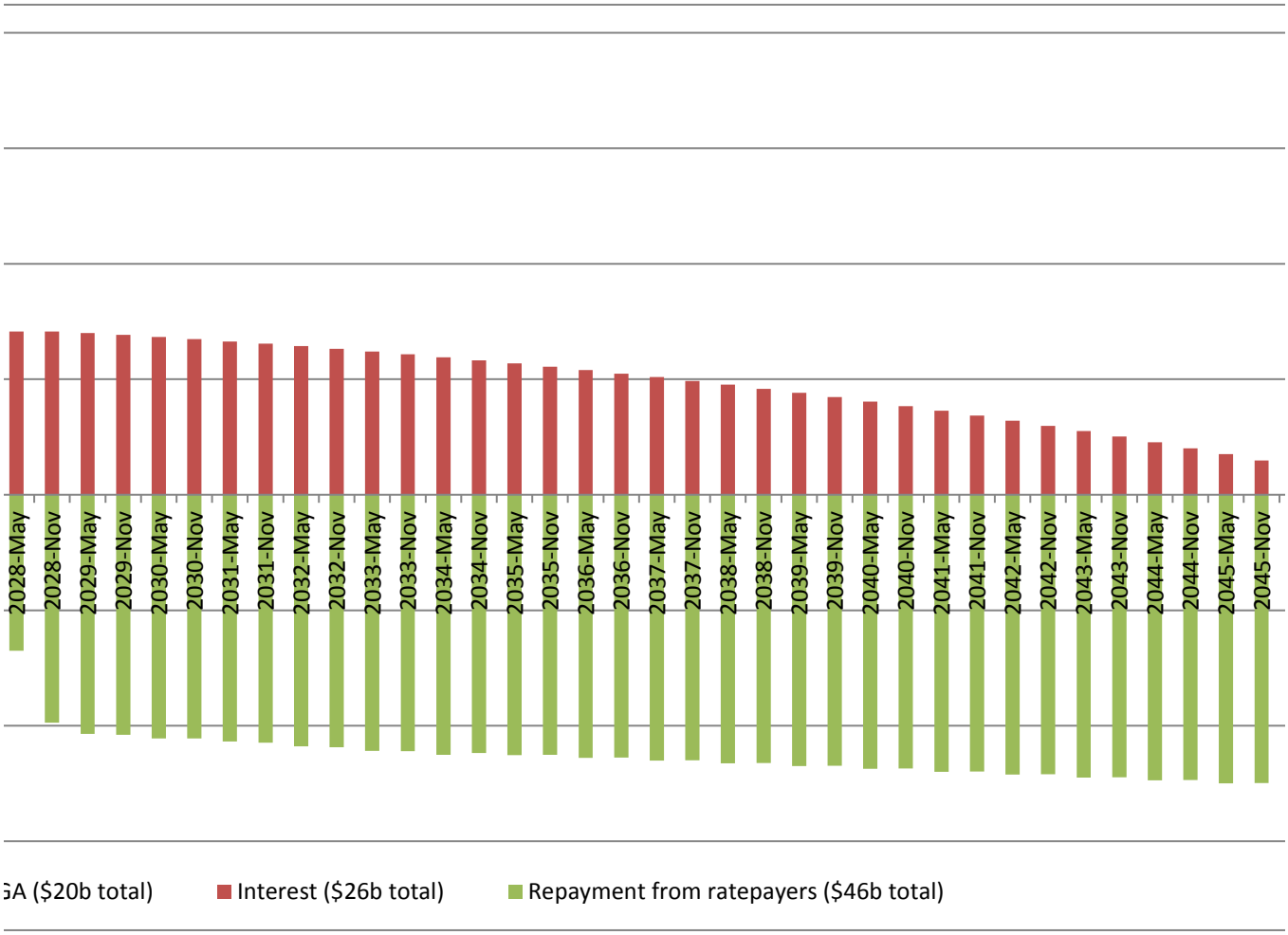
2049-May	2049-Nov
227	228
211	212
207	208
-8.8%	-8.8%

-1.9%	-1.9%
0.2%	0.3%

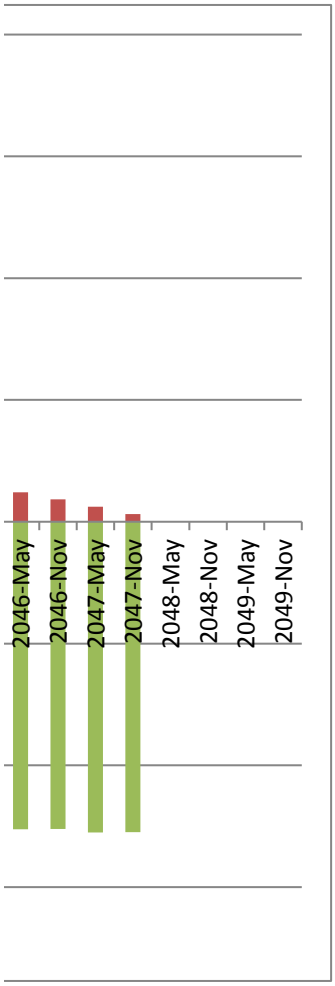


$ million

	2017-May	2017-Nov	2018-May
Money borrowed to pay GA ($20b total)	1236	1246	1237
Interest ($26b total)		32	64
Repayment from ratepayers ($46b total)			



2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov	2021-May	2021-Nov
1242	1231	1461	1564	1432	1353	1379
97	131	165	206	251	294	335



2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
1244	1174	1046	904	730	756
379	420	460	498	533	565

2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov
656	273				
599	630	653	669	685	699
		-41	-15	-140	-396

2028-May	2028-Nov	2029-May	2029-Nov	2030-May	2030-Nov	2031-May
707	707	700	692	683	674	664
-675	-987	-1035	-1040	-1055	-1055	-1069

2031-Nov	2032-May	2032-Nov	2033-May	2033-Nov	2034-May	2034-Nov
654	643	632	620	608	595	582
-1074	-1089	-1093	-1109	-1111	-1125	-1118

2035-May	2035-Nov	2036-May	2036-Nov	2037-May	2037-Nov
568	554	540	525	509	493
-1128	-1126	-1139	-1138	-1151	-1149

2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov	2041-May
476	459	441	423	404	384	364
-1163	-1161	-1175	-1173	-1187	-1185	-1199

2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
343	321	299	275	252	227	201
-1198	-1212	-1210	-1224	-1223	-1237	-1235

2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov
175	148	120	92	62	31
-1250	-1248	-1263	-1261	-1276	-1274

2048-May	2048-Nov	2049-May	2049-Nov
0	0	0	0
0	0	0	0

Annual interest on debt	0.05		
Number of months in RPP period	6		
Number of months in a year	12		
Effective RPP period rate, monthly compounding	0.02526		
	2017-May	2017-Nov	2018-May
	2017	2017	2018
	1	2	1
$ million	May	Nov	May
Fraction of current year's GA cost	48%	17%	48%
Fraction of next year's GA cost	0%	35%	0%
IESO GA Cost Forecast	5,832	6,172	5,706
GA Paid by Ratepayers	4,596	4,926	4,469
Difference of Payment from Forecast Cost	-1,236	-1,246	-1,237
Interest from previous period		-32	-64
Accumulated Debt at end of period ($ million)	-1,267	-2,544	-3,846
Change in level of accumulated debt		-1,278	-1,301
Total GA paid by ratepayer	4,596	4,926	4,469
Actual Accumulated debt	-1,267	-2,544	-3,846
Actual Interest	0	-32	-64

2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov	2021-May	2021-Nov	2022-May
2018	2019	2019	2020	2020	2021	2021	2022
2	1	2	1	2	1	2	1
Nov	May	Nov	May	Nov	May	Nov	May
17%	48%	17%	48%	17%	48%	17%	48%
35%	0%	35%	0%	35%	0%	35%	0%
6,029	5,570	6,199	5,867	5,835	5,228	5,541	5,127
4,787	4,339	4,738	4,303	4,403	3,875	4,162	3,883
-1,242	-1,231	-1,461	-1,564	-1,432	-1,353	-1,379	-1,244
-97	-131	-165	-206	-251	-294	-335	-379
-5,185	-6,547	-8,174	-9,944	-11,627	-13,274	-14,988	-16,611
-1,340	-1,362	-1,627	-1,770	-1,683	-1,647	-1,714	-1,623
4,787	4,339	4,738	4,303	4,403	3,875	4,162	3,883
-5,185	-6,547	-8,174	-9,944	-11,627	-13,274	-14,988	-16,611
-97	-131	-165	-206	-251	-294	-335	-379

2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov	2025-May	2025-Nov
2022	2023	2023	2024	2024	2025	2025
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
5,369	4,939	5,616	5,365	5,551	5,076	5,277
4,195	3,893	4,712	4,635	4,795	4,420	5,004
-1,174	-1,046	-904	-730	-756	-656	-273
-420	-460	-498	-533	-565	-599	-630
-18,204	-19,710	-21,112	-22,376	-23,697	-24,951	-25,855
-1,593	-1,506	-1,402	-1,264	-1,321	-1,254	-904
4,195	3,893	4,712	4,635	4,795	4,420	5,004
-18,204	-19,710	-21,112	-22,376	-23,697	-24,951	-25,855
-420	-460	-498	-533	-565	-599	-630

2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov	2029-May
2026	2026	2027	2027	2028	2028	2029
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
4,838	5,551	5,324	5,640	5,216	5,317	4,826
4,878	5,566	5,464	6,036	5,892	6,304	5,861
41	15	140	396	675	987	1,035
-653	-669	-685	-699	-707	-707	-700
-26,467	-27,121	-27,666	-27,969	-28,000	-27,721	-27,386
-613	-654	-545	-303	-31	279	335
4,878	5,566	5,464	6,036	5,892	6,304	5,861
-26,467	-27,121	-27,666	-27,969	-28,000	-27,721	-27,386
-653	-669	-685	-699	-707	-707	-700

2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
2029	2030	2030	2031	2031	2032	2032
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
5,082	4,687	4,658	4,173	4,540	4,253	4,362
6,121	5,742	5,714	5,241	5,614	5,342	5,456
1,040	1,055	1,055	1,069	1,074	1,089	1,093
-692	-683	-674	-664	-654	-643	-632
-27,038	-26,667	-26,285	-25,880	-25,460	-25,015	-24,553
348	371	382	405	420	446	461
6,121	5,742	5,714	5,241	5,614	5,342	5,456
-27,038	-26,667	-26,285	-25,880	-25,460	-25,015	-24,553
-692	-683	-674	-664	-654	-643	-632

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May
2033	2033	2034	2034	2035	2035	2036
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
3,972	4,096	3,740	3,279	2,730	2,836	2,598
5,081	5,207	4,865	4,397	3,858	3,962	3,737
1,109	1,111	1,125	1,118	1,128	1,126	1,139
-620	-608	-595	-582	-568	-554	-540
-24,065	-23,562	-23,032	-22,496	-21,937	-21,365	-20,766
488	503	530	536	559	572	599
5,081	5,207	4,865	4,397	3,858	3,962	3,737
-24,065	-23,562	-23,032	-22,496	-21,937	-21,365	-20,766
-620	-608	-595	-582	-568	-554	-540

2036-Nov	2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov
2036	2037	2037	2038	2038	2039	2039
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
2,699	2,473	2,569	2,353	2,444	2,240	2,326
3,837	3,624	3,718	3,516	3,606	3,414	3,500
1,138	1,151	1,149	1,163	1,161	1,175	1,173
-525	-509	-493	-476	-459	-441	-423
-20,153	-19,511	-18,855	-18,168	-17,466	-16,732	-15,982
613	642	656	686	702	733	751
3,837	3,624	3,718	3,516	3,606	3,414	3,500
-20,153	-19,511	-18,855	-18,168	-17,466	-16,732	-15,982
-525	-509	-493	-476	-459	-441	-423

2040-May	2040-Nov	2041-May	2041-Nov	2042-May	2042-Nov	2043-May
2040	2040	2041	2041	2042	2042	2043
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
2,132	2,214	2,029	2,107	1,931	2,005	1,837
3,318	3,399	3,228	3,305	3,142	3,215	3,061
1,187	1,185	1,199	1,198	1,212	1,210	1,224
-404	-384	-364	-343	-321	-299	-275
-15,199	-14,398	-13,562	-12,707	-11,817	-10,905	-9,957
783	801	835	855	891	911	949
3,318	3,399	3,228	3,305	3,142	3,215	3,061
-15,199	-14,398	-13,562	-12,707	-11,817	-10,905	-9,957
-404	-384	-364	-343	-321	-299	-275

2043-Nov	2044-May	2044-Nov	2045-May	2045-Nov	2046-May	2046-Nov
2043	2044	2044	2045	2045	2046	2046
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
1,909	1,749	1,816	1,664	1,729	1,584	1,645
3,131	2,985	3,052	2,914	2,977	2,846	2,906
1,223	1,237	1,235	1,250	1,248	1,263	1,261
-252	-227	-201	-175	-148	-120	-92
-8,986	-7,976	-6,942	-5,868	-4,768	-3,626	-2,456
971	1,010	1,034	1,074	1,100	1,142	1,169
3,131	2,985	3,052	2,914	2,977	2,846	2,906
-8,986	-7,976	-6,942	-5,868	-4,768	-3,626	-2,456
-252	-227	-201	-175	-148	-120	-92

2047-May	2047-Nov	2048-May	2048-Nov	2049-May	2049-Nov	2050-May
2047	2047	2048	2048	2049	2049	2050
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
1,507	1,566	1,434	1,490	1,365	1,418	1,299
2,783	2,840	2,723	2,777	2,668	2,719	2,615
1,276	1,274	1,289	1,287	1,302	1,301	1,316
-62	-31	0	33	66	100	136
-1,243	0	1,289	2,609	3,977	5,379	6,830
1,214	1,243	1,289	1,320	1,368	1,401	1,452
2,783	2,840	1,434	1,490	1,365	1,418	1,299
-1,243	0	0	0	0	0	0
-62	-31	0	0	0	0	0

2050-Nov	
	2050
	2
Nov	
	17%
	35%
	446
	590
	144
	173
	7,147
	316
	446
	0
	0

		2016
Relative change in GA		
IESO Class B GA Rate - Revised Base ($2016/MWh)	$	90.86
IESO Class B GA Rate - Revised Base Extrapolated ($2016/MWh)		
IESO Class B GA Rate - Revised Base ($2016/MWh)	$	90.86
Total GA (2016$ million)		
Total GA (nominal $ million)		

	2017	2018	2019	2020	2021	2022	2023
	-2%	-4%	-4%	3%	-13%	-4%	-6%
$	88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36	$ 67.39
$	88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36	$ 67.39
$	11,858	$ 11,375	$ 10,886	$ 11,242	$ 9,821	$ 9,442	$ 8,918
	12095	11835	11552	12168	10844	10634	10243

	2024	2025	2026	2027	2028	2029	2030
	7%	-7%	-6%	7%	-4%	-9%	-5%
$	71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29
$	71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29
$	9,498	$ 8,809	$ 8,231	$ 8,881	$ 8,531	$ 7,737	$ 7,368
	11128	10527	10033	11043	10819	10009	9721

Growth Rate -0.07082613

	2031	2032	2033	2034	2035	2036	2037
	-13%	-1%	-9%	-8%	-29%		
$	48.26	$ 47.88	$ 43.54	$ 39.92	$ 28.18		
						$ 26.19	$ 24.33
$	48.26	$ 47.88	$ 43.54	$ 39.92	$ 28.18	$ 26.19	$ 24.33
$	6,430	$ 6,425	$ 5,883	$ 5,431	$ 3,887	$ 3,627	$ 3,384
	8654	8820	8238	7756	5662	5389	5129

	2038	2039	2040	2041	2042	2043	2044	2045	2046
	$ 22.61	$ 21.01	$ 19.52	$ 18.14	$ 16.85	$ 15.66	$ 14.55	$ 13.52	$ 12.56
	$ 22.61	$ 21.01	$ 19.52	$ 18.14	$ 16.85	$ 15.66	$ 14.55	$ 13.52	$ 12.56
	$ 3,157	$ 2,946	$ 2,749	$ 2,564	$ 2,393	$ 2,233	$ 2,083	$ 1,944	$ 1,813
	4881	4645	4421	4207	4004	3811	3627	3451	3285

2047	2048	2049	2050
$ 11.67	$ 10.85	$ 10.08	$ 9.36
$ 11.67	$ 10.85	$ 10.08	$ 9.36
$ 1,692	$ 1,579	$ 1,473	$ 1,374
3126	2975	2831	2695

Share of consumption	50%	
Share of GA savings	100%	
Average monthly residential consumtion (MW)	0.75	
RPP Fraction of Class B consumption	53%	
Assumed RPP Eligible Demand (TWh) (from Robin/Mark)	72	
	2017	2017
	1	2
RPP Period beginning	May	Nov
Assumed CPI increase since previous RPP period		0.01
Fraction of current year's demand	50%	17%
Fraction of next year's demand	0%	33%
Total Demand (TWh)	71.79162	71.20838
IESO Forecast monthly bill - no rebate with tax ($/month)	164.3404	166.1701
IESO Forecast monthly bill - no rebate no tax ($/month)	145.4339	147.0532
IESO Forecast monthly bill - with rebate with tax ($/month)	152.7056	154.4059
Target Bill with OFHP with tax ($/month)	123.2553	124.4878
HST on OFHP bill ($/month)	15.26018	15.41278
8% Rebate on OFHP bill ($/month)	-9.39	-9.48
Pre-tax subtotal of OFHP bill ($/month)	117.39	118.56
Savings due to tax-basing social programs ($/month)	-2.41	-2.43672
Impact of GA Financing ($/month)	-25.64	-26.06
Fraction of current year's GA cost	48%	17%
Fraction of next year's GA cost	0%	35%
Change in GA Cost ($ million)	-1236	-1246
Actual Bill with OFHP with tax ($/month)	123.2553	124.4878

2018	2018	2019	2019	2020	2020	2021	2021	2022	2022
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.79162	70.87573	71.28959	70.71041	71.28959	70.71041	71.28959	70.71041	71.28959	70.71041
167.0794	168.9706	169.9104	177.0514	180.6002	179.1968	178.4995	180.84	182.0031	185.3459
147.8579	149.5315	150.3632	156.6826	159.8231	158.5813	157.9641	160.0354	161.0647	164.0229
155.2508	157.0081	157.8813	164.5168	167.8143	166.5103	165.8623	168.0371	169.1179	172.2241
125.7327	126.99	128.2599	129.5425	130.8379	132.1463	133.4678	134.8025	139.0773	143.4877
15.56691	15.72257	15.8798	16.0386	16.19898	16.36097	16.52458	16.68983	17.21909	17.76514
-9.58	-9.68	-9.77	-9.87	-9.97	-10.07	-10.17	-10.27	-10.60	-10.93
119.75	120.94	122.15	123.37	124.61	125.85	127.11	128.38	132.45	136.65
-2.45	-2.47672	-2.49	-2.5234	-2.54	-2.56672	-2.58	-2.60366	-2.61541	-2.63939
-25.66	-26.11	-25.72	-30.79	-32.68	-30.16	-28.27	-29.05	-25.99	-24.73
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
-1237	-1242	-1231	-1461	-1564	-1432	-1353	-1379	-1244	-1174
125.7327	126.99	128.2599	129.5425	130.8379	132.1463	133.4678	134.8025	139.0773	143.4877

2023	2023	2024	2024	2025	2025	2026	2026	2027	2027
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.28959	70.71041	71.28959	70.71041	71.28959	70.37777	70.78755	70.5451	71.28959	70.71041
187.0071	188.9146	189.8625	196.0113	199.067	195.8777	194.2928	201.0266	204.373	204.7639
165.493	167.181	168.0199	173.4613	176.1655	173.3431	171.9405	177.8997	180.8611	181.2069
173.7677	175.5401	176.4209	182.1344	184.9737	182.0103	180.5376	186.7947	189.9041	190.2673
148.0379	152.7324	157.5758	162.5728	167.7283	173.0472	178.5348	184.1964	190.0376	196.064
18.3285	18.90973	19.50939	20.12806	20.76636	21.42489	22.10431	22.80527	23.52847	24.27459
-11.28	-11.64	-12.01	-12.39	-12.78	-13.18	-13.60	-14.03	-14.48	-14.94
140.99	145.46	150.07	154.83	159.74	164.81	170.03	175.43	180.99	186.73
-2.65131	-2.67562	-2.6877	-2.71235	-2.72459	-2.74958	-2.76199	-2.78732	-2.7999	-2.82558
-21.85	-19.05	-15.26	-15.92	-13.70	-5.79	0.85	0.31	2.93	8.35
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
-1046	-904	-730	-756	-656	-273	41	15	140	396
148.0379	152.7324	157.5758	162.5728	167.7283	173.0472	178.5348	184.1964	190.0376	196.064

2028 1	2028 2	2029 1	2029 2	2030 1	2030 2	2031 1	2031 2	2032 1	2032 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.28959	70.71041	71.28959	71.04306	71.79162	71.20838	71.79162	71.54102	72.29366	72.03899
204.9581	204.3448	204.04	205.5851	206.353	208.1958	209.1116	210.7652	211.5869	213.0563
181.3788	180.8361	180.5664	181.9337	182.6132	184.2441	185.0545	186.5178	187.2451	188.5454
190.4478	189.8779	189.5947	191.0304	191.7439	193.4563	194.3072	195.8437	196.6073	197.9727
202.2816	208.6962	209.2828	210.8676	211.6552	213.5453	214.4847	216.1807	217.0236	218.5307
25.04438	25.83858	25.9112	26.10741	26.20493	26.43895	26.55525	26.76523	26.86959	27.05618
-15.41	-15.90	-15.95	-16.07	-16.13	-16.27	-16.34	-16.47	-16.54	-16.65
192.65	198.76	199.32	200.83	201.58	203.38	204.27	205.89	206.69	208.12
-2.83833	-2.86436	-2.87729	-2.90367	-2.91679	-2.94353	-2.95682	-2.98393	-2.99741	-3.02489
14.11	20.79	21.63	21.80	21.88	22.08	22.17	22.35	22.44	22.60
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
675	987	1035	1040	1055	1055	1069	1074	1089	1093
202.2816	208.6962	209.2828	210.8676	211.6552	213.5453	214.4847	216.1807	217.0236	218.5307

2033 1	2033 2	2034 1	2034 2	2035 1	2035 2	2036 1	2036 2	2037 1	2037 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
72.7957	72.53695	73.29774	73.36756	74.30182	73.90311	74.6111	74.21073	74.92167	74.51963
213.7865	214.8197	215.3331	213.1017	211.9927	212.6842	213.0279	213.7227	214.068	214.7663
189.1916	190.1059	190.5603	188.5855	187.6042	188.2161	188.5202	189.1352	189.4407	190.0587
198.6512	199.6112	200.0883	198.0148	196.9844	197.6269	197.9462	198.5919	198.9128	199.5616
219.2797	220.3394	220.8661	218.5773	217.4399	218.1491	218.5016	219.2143	219.5685	220.2847
27.14891	27.28012	27.34532	27.06195	26.92112	27.00894	27.05258	27.14082	27.18467	27.27334
-16.71	-16.79	-16.83	-16.65	-16.57	-16.62	-16.65	-16.70	-16.73	-16.78
208.84	209.85	210.35	208.17	207.09	207.76	208.10	208.78	209.11	209.79
-3.03855	-3.06641	-3.08025	-3.1085	-3.12253	-3.15117	-3.16539	-3.19442	-3.20884	-3.23826
22.68	22.81	22.87	22.69	22.60	22.70	22.74	22.83	22.88	22.97
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1109	1111	1125	1118	1128	1126	1139	1138	1151	1149
219.2797	220.3394	220.8661	218.5773	217.4399	218.1491	218.5016	219.2143	219.5685	220.2847

2038 1	2038 2	2039 1	2039 2	2040 1	2040 2	2041 1	2041 2	2042 1	2042 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
75.23353	74.82981	75.54669	75.14129	75.86115	75.45407	76.17692	75.76814	76.494	76.08353
215.1133	215.815	216.1637	216.8688	217.2192	217.9277	218.2798	218.9918	219.3456	220.0611
190.3658	190.9867	191.2953	191.9193	192.2293	192.8564	193.168	193.798	194.1112	194.7443
199.884	200.536	200.86	201.5152	201.8408	202.4992	202.8264	203.4879	203.8167	204.4815
220.6406	221.3603	221.7179	222.4412	222.8006	223.5273	223.8885	224.6187	224.9817	225.7155
27.31741	27.40651	27.45079	27.54033	27.58483	27.67481	27.71952	27.80994	27.85487	27.94573
-16.81	-16.87	-16.89	-16.95	-16.98	-17.03	-17.06	-17.11	-17.14	-17.20
210.13	210.82	211.16	211.85	212.19	212.88	213.23	213.92	214.27	214.97
-3.25289	-3.28271	-3.29753	-3.32777	-3.3428	-3.37345	-3.38868	-3.41975	-3.43519	-3.46669
23.02	23.12	23.16	23.26	23.30	23.40	23.45	23.54	23.59	23.69
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1163	1161	1175	1173	1187	1185	1199	1198	1212	1210
220.6406	221.3603	221.7179	222.4412	222.8006	223.5273	223.8885	224.6187	224.9817	225.7155

2043	2043	2044	2044	2045	2045	2046	2046	2047	2047
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
76.81241	76.40022	77.13214	76.71824	77.4532	77.03758	77.7756	77.35824	78.09934	77.68025
220.4166	221.1356	221.4929	222.2154	222.5744	223.3004	223.6612	224.3908	224.7533	225.4864
195.059	195.6952	196.0114	196.6508	196.9685	197.611	197.9303	198.5759	198.8967	199.5455
204.8119	205.48	205.812	206.4833	206.8169	207.4915	207.8268	208.5047	208.8416	209.5228
226.0802	226.8176	227.1841	227.9252	228.2934	229.0381	229.4081	230.1564	230.5283	231.2802
27.99088	28.08219	28.12756	28.21931	28.2649	28.3571	28.40291	28.49556	28.5416	28.6347
-17.23	-17.28	-17.31	-17.37	-17.39	-17.45	-17.48	-17.54	-17.56	-17.62
215.31	216.02	216.37	217.07	217.42	218.13	218.48	219.20	219.55	220.27
-3.48234	-3.51427	-3.53014	-3.56251	-3.57859	-3.61141	-3.62771	-3.66098	-3.67751	-3.71123
23.74	23.84	23.88	23.98	24.03	24.13	24.18	24.28	24.33	24.43
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1224	1223	1237	1235	1250	1248	1263	1261	1276	1274
226.0802	226.8176	227.1841	227.9252	228.2934	229.0381	229.4081	230.1564	230.5283	231.2802

2048	2048	2049	2049	2050	2050
1	2	1	2	1	2
May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%
78.42443	78.00359	78.75087	78.32828	79.07867	26.03904
225.8507	226.5874	226.9535	227.6938	228.0617	75.71129
199.8679	200.5198	200.8438	201.499	201.8245	67.00114
209.8613	210.5458	210.886	211.5739	211.9157	70.3512
231.6539	232.4096	232.7851	233.5444	233.9217	77.65668
28.68096	28.77452	28.82101	28.91502	28.96174	9.614636
-17.65	-17.71	-17.74	-17.79	-17.82	-5.92
220.62	221.34	221.70	222.42	222.78	73.96
-3.72798	-3.76217	-3.77915	-3.81381	-3.83103	-1.27181
24.48	24.58	24.64	24.74	24.79	8.23
48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%
1289	1287	1302	1301	1316	144
205.9469	206.5956	206.9179	207.5694	207.8932	69.01579

Share of consumption	0.503496503
Share of GA savings	1
Average monthly residential consumtion (MW)	0.75
RPP Fraction of Class B conumption	0.53
Assumed RPP Eligible Demand (TWh) (from Energy Economics)	72
Tax-basing of social programs CAGR	1.0137

	2017
OPO Demand - Outlook B + Extrapolation	143
YoY Increase	

Relative change in non-OFHP Bill	
Non-OFHP Bill with rebate and tax	152.71
Non-OFHP Bill Extrapolated	
Non-OFHP Bill no rebate with tax	164.34
non-OFHP bill no rebate no tax	145.43
Cost Savings due to tax-basing social programs	-2.41

All	Class B	RPP	RPP Eligible
0.82	0.82	0.43	0.50
0.88	1	1	1

2018	2019	2020	2021	2022	2023
143	142	142	142	142	142
0	-0.00699301	0	0	0	0

1.7%	1.7%	6.3%	-1.2%	2.0%	2.7%
155.25	157.88	167.81	165.86	169.12	173.77
167.08	169.91	180.60	178.50	182.00	187.01
147.86	150.36	159.82	157.96	161.06	165.49
-2.45	-2.49	-2.54	-2.58	-2.62	-2.65

2024	2025	2026	2027	2028
142	142	141	142	142
0	0	-0.007042254	0.007092199	0

1.5%	4.8%	-2.4%	5.2%	0.3%
176.42	184.97	180.54	189.90	190.45
189.86	199.07	194.29	204.37	204.96
168.02	176.17	171.94	180.86	181.38
-2.69	-2.72	-2.76	-2.80	-2.84

Average Demand Growth Rate
Average Growth Rate in non-OFHP bill

2029	2030	2031	2032	2033	2034
142	143	143	144	145	146
0	0.00704225	0	0.00699301	0.00694444	0.006896552

-0.4%	1.1%	1.3%	1.2%	1.0%	0.7%
189.59	191.74	194.31	196.61	198.65	200.09
204.04	206.35	209.11	211.59	213.79	215.33
180.57	182.61	185.05	187.25	189.19	190.56
-2.88	-2.92	-2.96	-3.00	-3.04	-3.08

0.42%

0.49%

2035	2036	2037	2038	2039	2040
148	149	149	150	150	151
0.01369863					

-1.6%

196.98	197.95	198.91	199.88	200.86	201.84
	197.95	198.91	199.88	200.86	201.84
211.99	213.03	214.07	215.11	216.16	217.22
187.60	188.52	189.44	190.37	191.30	192.23
-3.12	-3.17	-3.21	-3.25	-3.30	-3.34

2041	2042	2043	2044	2045	2046
152	152	153	154	154	155

202.83	203.82	204.81	205.81	206.82	207.83
202.83	203.82	204.81	205.81	206.82	207.83
218.28	219.35	220.42	221.49	222.57	223.66
193.17	194.11	195.06	196.01	196.97	197.93
-3.39	-3.44	-3.48	-3.53	-3.58	-3.63

2047	2048	2049	2050
156	156	157	158

208.84	209.86	210.89	211.92
208.84	209.86	210.89	211.92
224.75	225.85	226.95	228.06
198.90	199.87	200.84	201.82
-3.68	-3.73	-3.78	-3.83

From the IESO website

2016	Jan	Feb	Mar	Apr
GA-OEFC-NUG (M$)	74.2	73.3	76.5	61.2
GA-OPG (M$)	327.9	339.6	378	335.1
GA-OPA (M$)	668.5	650.8	665.6	694.4
Total GA (M$)	1070.6	1063.7	1120.1	1090.7
Fraction of total	9%	9%	9%	9%
Fraction of 6-month RPP total	17%	17%	18%	17%

May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
54.1	46.5	40	38.9	99.3	119.7	116.1	42
301.8	261.4	268.4	204.4	273.7	305.6	261.6	258.7
704.9	687.4	673.4	635.3	594.7	637	698.4	664.8
1060.8	995.3	981.8	878.6	967.7	1062.3	1076.1	965.5
9%	8%	8%	7%	8%	9%	9%	8%
18%	17%	17%	15%	16%	18%	17%	15%

Total	Fraction of total
841.8	7%
3516.2	29%
7975.2	65%
12333.2	

RPP Period Start	Fraction of current year's GA cost
May	48.2%
Nov	16.6%

Fraction of next year's GA cost
0
35%

From IESO website

Month	Date	Hour	Total Market Demand	Ontario Demand
1	1-Jan-16	1	16767	13417
1	1-Jan-16	2	16751	12968
1	1-Jan-16	3	16319	12395
1	1-Jan-16	4	16148	12228
1	1-Jan-16	5	16054	12116
1	1-Jan-16	6	16100	12257
1	1-Jan-16	7	16416	12528
1	1-Jan-16	8	16711	12820
1	1-Jan-16	9	16688	12986
1	1-Jan-16	10	17066	13569
1	1-Jan-16	11	17598	13965
1	1-Jan-16	12	17943	14215
1	1-Jan-16	13	18289	14443
1	1-Jan-16	14	18586	14733
1	1-Jan-16	15	18373	14907
1	1-Jan-16	16	18374	14981
1	1-Jan-16	17	18963	15763
1	1-Jan-16	18	20100	16979
1	1-Jan-16	19	19972	16859
1	1-Jan-16	20	19554	16552
1	1-Jan-16	21	19137	16165
1	1-Jan-16	22	18814	15701
1	1-Jan-16	23	17782	14866
1	1-Jan-16	24	17442	14023
1	2-Jan-16	1	17064	13251
1	2-Jan-16	2	16789	12844
1	2-Jan-16	3	16564	12673
1	2-Jan-16	4	16312	12473
1	2-Jan-16	5	16479	12468
1	2-Jan-16	6	16481	12644
1	2-Jan-16	7	16962	13064
1	2-Jan-16	8	17143	13780
1	2-Jan-16	9	17560	14305
1	2-Jan-16	10	18248	15068
1	2-Jan-16	11	18700	15536
1	2-Jan-16	12	18835	15852
1	2-Jan-16	13	18853	16059
1	2-Jan-16	14	18348	15750
1	2-Jan-16	15	18418	15564
1	2-Jan-16	16	18679	15571
1	2-Jan-16	17	19226	16207
1	2-Jan-16	18	20347	17163
1	2-Jan-16	19	20289	17100
1	2-Jan-16	20	19972	16710
1	2-Jan-16	21	19054	16124

1	2-Jan-16	22	18972	15699
1	2-Jan-16	23	18312	14983
1	2-Jan-16	24	17878	14164
1	3-Jan-16	1	17408	13432
1	3-Jan-16	2	16592	12916
1	3-Jan-16	3	16499	12588
1	3-Jan-16	4	16362	12450
1	3-Jan-16	5	16319	12443
1	3-Jan-16	6	16512	12624
1	3-Jan-16	7	16929	12973
1	3-Jan-16	8	17351	13613
1	3-Jan-16	9	17314	14155
1	3-Jan-16	10	17773	14696
1	3-Jan-16	11	18412	15182
1	3-Jan-16	12	18480	15434
1	3-Jan-16	13	18720	15650
1	3-Jan-16	14	18524	15533
1	3-Jan-16	15	18463	15602
1	3-Jan-16	16	18645	15748
1	3-Jan-16	17	19743	16863
1	3-Jan-16	18	21242	18423
1	3-Jan-16	19	21258	18512
1	3-Jan-16	20	21009	18316
1	3-Jan-16	21	20191	18006
1	3-Jan-16	22	19909	17347
1	3-Jan-16	23	19138	16606
1	3-Jan-16	24	18275	15533
1	4-Jan-16	1	17965	14809
1	4-Jan-16	2	17629	14480
1	4-Jan-16	3	17406	14295
1	4-Jan-16	4	17184	14213
1	4-Jan-16	5	17536	14435
1	4-Jan-16	6	18269	15147
1	4-Jan-16	7	19542	16532
1	4-Jan-16	8	21171	18240
1	4-Jan-16	9	21362	18522
1	4-Jan-16	10	21695	18225
1	4-Jan-16	11	21213	17912
1	4-Jan-16	12	21218	17733
1	4-Jan-16	13	20870	17597
1	4-Jan-16	14	21146	17619
1	4-Jan-16	15	21192	17758
1	4-Jan-16	16	21706	18327
1	4-Jan-16	17	22939	19437
1	4-Jan-16	18	24010	20820
1	4-Jan-16	19	23703	20836
1	4-Jan-16	20	23102	20502

1	4-Jan-16	21	23028	20255
1	4-Jan-16	22	22404	19533
1	4-Jan-16	23	21205	18358
1	4-Jan-16	24	19817	17238
1	5-Jan-16	1	19386	16429
1	5-Jan-16	2	19071	15996
1	5-Jan-16	3	19015	15916
1	5-Jan-16	4	18882	15878
1	5-Jan-16	5	18859	15947
1	5-Jan-16	6	20075	16466
1	5-Jan-16	7	21834	17974
1	5-Jan-16	8	22913	19374
1	5-Jan-16	9	23441	19356
1	5-Jan-16	10	22903	18899
1	5-Jan-16	11	22889	18547
1	5-Jan-16	12	22431	18080
1	5-Jan-16	13	21288	17610
1	5-Jan-16	14	20761	17456
1	5-Jan-16	15	20746	17516
1	5-Jan-16	16	21220	18038
1	5-Jan-16	17	22494	19311
1	5-Jan-16	18	23364	20277
1	5-Jan-16	19	23629	20202
1	5-Jan-16	20	23262	19893
1	5-Jan-16	21	22462	19445
1	5-Jan-16	22	21746	18648
1	5-Jan-16	23	20463	17341
1	5-Jan-16	24	18834	16055
1	6-Jan-16	1	18164	15187
1	6-Jan-16	2	17916	14784
1	6-Jan-16	3	17921	14522
1	6-Jan-16	4	17944	14476
1	6-Jan-16	5	17898	14586
1	6-Jan-16	6	18240	15148
1	6-Jan-16	7	19457	16504
1	6-Jan-16	8	21644	18112
1	6-Jan-16	9	21583	18213
1	6-Jan-16	10	20947	17600
1	6-Jan-16	11	20417	17234
1	6-Jan-16	12	20044	16927
1	6-Jan-16	13	19796	16619
1	6-Jan-16	14	20216	16678
1	6-Jan-16	15	20289	16707
1	6-Jan-16	16	20416	16869
1	6-Jan-16	17	21450	18146
1	6-Jan-16	18	22628	19353
1	6-Jan-16	19	22286	19400

1	6-Jan-16	20	22086	19105
1	6-Jan-16	21	21468	18731
1	6-Jan-16	22	20966	17971
1	6-Jan-16	23	20030	16841
1	6-Jan-16	24	18766	15669
1	7-Jan-16	1	17925	14795
1	7-Jan-16	2	17477	14398
1	7-Jan-16	3	17506	14210
1	7-Jan-16	4	17330	14198
1	7-Jan-16	5	17561	14356
1	7-Jan-16	6	18298	15122
1	7-Jan-16	7	19402	16439
1	7-Jan-16	8	20710	18000
1	7-Jan-16	9	20873	17989
1	7-Jan-16	10	20476	17460
1	7-Jan-16	11	20463	17154
1	7-Jan-16	12	20337	17075
1	7-Jan-16	13	20063	16841
1	7-Jan-16	14	19922	16657
1	7-Jan-16	15	20161	16832
1	7-Jan-16	16	20342	17142
1	7-Jan-16	17	20893	18087
1	7-Jan-16	18	21801	19131
1	7-Jan-16	19	21920	19211
1	7-Jan-16	20	21940	18958
1	7-Jan-16	21	21576	18591
1	7-Jan-16	22	20690	17832
1	7-Jan-16	23	19625	16564
1	7-Jan-16	24	18367	15403
1	8-Jan-16	1	17846	14684
1	8-Jan-16	2	17379	14114
1	8-Jan-16	3	17334	13994
1	8-Jan-16	4	17339	13986
1	8-Jan-16	5	17507	14133
1	8-Jan-16	6	17588	14624
1	8-Jan-16	7	18914	16024
1	8-Jan-16	8	20228	17529
1	8-Jan-16	9	20360	17727
1	8-Jan-16	10	20107	17550
1	8-Jan-16	11	20171	17523
1	8-Jan-16	12	20015	17427
1	8-Jan-16	13	19769	17308
1	8-Jan-16	14	19934	17384
1	8-Jan-16	15	19841	17296
1	8-Jan-16	16	20025	17413
1	8-Jan-16	17	20731	17963
1	8-Jan-16	18	21291	18801

1	8-Jan-16	19	21578	18689
1	8-Jan-16	20	21318	18526
1	8-Jan-16	21	21049	18054
1	8-Jan-16	22	20508	17492
1	8-Jan-16	23	19267	16343
1	8-Jan-16	24	17841	14973
1	9-Jan-16	1	17204	14235
1	9-Jan-16	2	16935	13547
1	9-Jan-16	3	16624	13157
1	9-Jan-16	4	16523	12976
1	9-Jan-16	5	16564	12885
1	9-Jan-16	6	16751	13137
1	9-Jan-16	7	16884	13460
1	9-Jan-16	8	17291	14239
1	9-Jan-16	9	18551	15186
1	9-Jan-16	10	19057	15772
1	9-Jan-16	11	19085	16164
1	9-Jan-16	12	19186	16377
1	9-Jan-16	13	19218	16432
1	9-Jan-16	14	18921	16235
1	9-Jan-16	15	19227	16220
1	9-Jan-16	16	19253	16313
1	9-Jan-16	17	19731	16845
1	9-Jan-16	18	20159	17628
1	9-Jan-16	19	20193	17574
1	9-Jan-16	20	19638	16880
1	9-Jan-16	21	18987	16215
1	9-Jan-16	22	18378	15522
1	9-Jan-16	23	17681	14844
1	9-Jan-16	24	17261	14031
1	10-Jan-16	1	16722	13297
1	10-Jan-16	2	16258	12752
1	10-Jan-16	3	16201	12486
1	10-Jan-16	4	16189	12401
1	10-Jan-16	5	16348	12346
1	10-Jan-16	6	16555	12653
1	10-Jan-16	7	17001	13241
1	10-Jan-16	8	17155	13957
1	10-Jan-16	9	17029	14330
1	10-Jan-16	10	17811	15001
1	10-Jan-16	11	18620	15696
1	10-Jan-16	12	18814	16008
1	10-Jan-16	13	18890	16100
1	10-Jan-16	14	18867	16004
1	10-Jan-16	15	18947	15964
1	10-Jan-16	16	19319	16319
1	10-Jan-16	17	20197	17352

1	10-Jan-16	18	21342	18498
1	10-Jan-16	19	21159	18386
1	10-Jan-16	20	20465	17771
1	10-Jan-16	21	20205	17429
1	10-Jan-16	22	19530	16713
1	10-Jan-16	23	18947	15967
1	10-Jan-16	24	18405	15138
1	11-Jan-16	1	17719	14459
1	11-Jan-16	2	17017	14070
1	11-Jan-16	3	16956	13990
1	11-Jan-16	4	17060	14091
1	11-Jan-16	5	17948	14465
1	11-Jan-16	6	18345	15214
1	11-Jan-16	7	19797	16653
1	11-Jan-16	8	21327	18165
1	11-Jan-16	9	21246	18164
1	11-Jan-16	10	20747	17840
1	11-Jan-16	11	20682	17709
1	11-Jan-16	12	20885	17857
1	11-Jan-16	13	20582	17626
1	11-Jan-16	14	21088	17781
1	11-Jan-16	15	21066	17767
1	11-Jan-16	16	21288	18175
1	11-Jan-16	17	21844	19224
1	11-Jan-16	18	22696	20347
1	11-Jan-16	19	22783	20494
1	11-Jan-16	20	22812	20314
1	11-Jan-16	21	22576	19938
1	11-Jan-16	22	21789	19109
1	11-Jan-16	23	20831	17982
1	11-Jan-16	24	19282	16643
1	12-Jan-16	1	18965	15705
1	12-Jan-16	2	18718	15365
1	12-Jan-16	3	18606	15204
1	12-Jan-16	4	18800	15039
1	12-Jan-16	5	18800	15003
1	12-Jan-16	6	18957	15616
1	12-Jan-16	7	19941	16899
1	12-Jan-16	8	21557	18563
1	12-Jan-16	9	21747	18699
1	12-Jan-16	10	21925	18575
1	12-Jan-16	11	21803	18480
1	12-Jan-16	12	21864	18512
1	12-Jan-16	13	21554	18312
1	12-Jan-16	14	21614	18262
1	12-Jan-16	15	21653	18271
1	12-Jan-16	16	21766	18369

1	12-Jan-16	17	22499	19022
1	12-Jan-16	18	23615	20144
1	12-Jan-16	19	23542	20186
1	12-Jan-16	20	23398	19925
1	12-Jan-16	21	22978	19507
1	12-Jan-16	22	21787	18705
1	12-Jan-16	23	20573	17577
1	12-Jan-16	24	19496	16441
1	13-Jan-16	1	18505	15475
1	13-Jan-16	2	18666	15036
1	13-Jan-16	3	18721	14900
1	13-Jan-16	4	18761	14953
1	13-Jan-16	5	18925	15103
1	13-Jan-16	6	18923	15821
1	13-Jan-16	7	20146	17257
1	13-Jan-16	8	21165	18625
1	13-Jan-16	9	21576	18819
1	13-Jan-16	10	21260	18600
1	13-Jan-16	11	21163	18332
1	13-Jan-16	12	21395	18230
1	13-Jan-16	13	21199	17889
1	13-Jan-16	14	21061	17891
1	13-Jan-16	15	21162	17884
1	13-Jan-16	16	21469	18327
1	13-Jan-16	17	22295	19257
1	13-Jan-16	18	23602	20354
1	13-Jan-16	19	23705	20354
1	13-Jan-16	20	23427	20101
1	13-Jan-16	21	22781	19682
1	13-Jan-16	22	22003	18983
1	13-Jan-16	23	20912	17845
1	13-Jan-16	24	19750	16624
1	14-Jan-16	1	18753	15831
1	14-Jan-16	2	18431	15520
1	14-Jan-16	3	18363	15365
1	14-Jan-16	4	18472	15369
1	14-Jan-16	5	18620	15469
1	14-Jan-16	6	19066	15963
1	14-Jan-16	7	20362	17294
1	14-Jan-16	8	21494	18813
1	14-Jan-16	9	21948	18980
1	14-Jan-16	10	21651	18947
1	14-Jan-16	11	21536	18762
1	14-Jan-16	12	21531	18579
1	14-Jan-16	13	20805	18245
1	14-Jan-16	14	20904	18123
1	14-Jan-16	15	20891	18091

1	14-Jan-16	16	21160	18359
1	14-Jan-16	17	21410	19066
1	14-Jan-16	18	22463	20091
1	14-Jan-16	19	22495	19996
1	14-Jan-16	20	21968	19800
1	14-Jan-16	21	21867	19432
1	14-Jan-16	22	21187	18737
1	14-Jan-16	23	20085	17535
1	14-Jan-16	24	18378	16055
1	15-Jan-16	1	17709	15398
1	15-Jan-16	2	17681	14906
1	15-Jan-16	3	17513	14482
1	15-Jan-16	4	17599	14451
1	15-Jan-16	5	17601	14577
1	15-Jan-16	6	18408	15200
1	15-Jan-16	7	19122	16455
1	15-Jan-16	8	20729	17923
1	15-Jan-16	9	20985	18224
1	15-Jan-16	10	21188	18144
1	15-Jan-16	11	20971	18119
1	15-Jan-16	12	20993	18166
1	15-Jan-16	13	20867	17957
1	15-Jan-16	14	21092	17911
1	15-Jan-16	15	21164	17900
1	15-Jan-16	16	21255	17937
1	15-Jan-16	17	21285	18375
1	15-Jan-16	18	22048	19131
1	15-Jan-16	19	21736	19037
1	15-Jan-16	20	21563	18732
1	15-Jan-16	21	21034	18308
1	15-Jan-16	22	20336	17617
1	15-Jan-16	23	19258	16495
1	15-Jan-16	24	17951	15435
1	16-Jan-16	1	17670	14684
1	16-Jan-16	2	17246	14136
1	16-Jan-16	3	16914	13673
1	16-Jan-16	4	16663	13540
1	16-Jan-16	5	16889	13430
1	16-Jan-16	6	17036	13556
1	16-Jan-16	7	17436	14091
1	16-Jan-16	8	18261	14974
1	16-Jan-16	9	18754	15759
1	16-Jan-16	10	19699	16582
1	16-Jan-16	11	19715	16953
1	16-Jan-16	12	19179	17060
1	16-Jan-16	13	19227	16811
1	16-Jan-16	14	19048	16434

1	16-Jan-16	15	19078	16345
1	16-Jan-16	16	19363	16538
1	16-Jan-16	17	20070	17518
1	16-Jan-16	18	20695	18404
1	16-Jan-16	19	20789	18368
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12	26-Dec-16	7	16645	13339
12	26-Dec-16	8	17228	13832
12	26-Dec-16	9	17766	14380
12	26-Dec-16	10	18197	14917
12	26-Dec-16	11	18354	15233
12	26-Dec-16	12	18920	15582
12	26-Dec-16	13	18610	15339
12	26-Dec-16	14	18793	15429
12	26-Dec-16	15	18499	15274
12	26-Dec-16	16	18660	15350
12	26-Dec-16	17	18982	15899
12	26-Dec-16	18	19427	16375
12	26-Dec-16	19	19020	16073
12	26-Dec-16	20	18876	15782
12	26-Dec-16	21	18467	15410
12	26-Dec-16	22	17944	14797
12	26-Dec-16	23	17005	14005
12	26-Dec-16	24	16297	13180
12	27-Dec-16	1	15442	12480
12	27-Dec-16	2	15214	12045
12	27-Dec-16	3	14586	11752
12	27-Dec-16	4	14561	11684
12	27-Dec-16	5	14783	11833
12	27-Dec-16	6	15356	12180
12	27-Dec-16	7	15902	12821
12	27-Dec-16	8	16623	13571
12	27-Dec-16	9	17036	14166
12	27-Dec-16	10	17758	14730
12	27-Dec-16	11	18341	15223
12	27-Dec-16	12	18681	15393
12	27-Dec-16	13	18531	15467
12	27-Dec-16	14	18425	15461
12	27-Dec-16	15	18264	15425
12	27-Dec-16	16	18465	15614
12	27-Dec-16	17	19152	16377
12	27-Dec-16	18	20133	17251
12	27-Dec-16	19	19812	17081
12	27-Dec-16	20	19831	16939
12	27-Dec-16	21	19654	16656
12	27-Dec-16	22	19102	16083
12	27-Dec-16	23	18520	15219
12	27-Dec-16	24	17582	14293
12	28-Dec-16	1	16789	13560
12	28-Dec-16	2	16340	13129
12	28-Dec-16	3	16081	12873
12	28-Dec-16	4	16068	12801
12	28-Dec-16	5	16167	12922

12	28-Dec-16	6	16699	13429
12	28-Dec-16	7	17553	14341
12	28-Dec-16	8	18556	15379
12	28-Dec-16	9	18910	15770
12	28-Dec-16	10	18977	15987
12	28-Dec-16	11	18851	15992
12	28-Dec-16	12	18823	16051
12	28-Dec-16	13	18946	15972
12	28-Dec-16	14	19388	15922
12	28-Dec-16	15	19471	16056
12	28-Dec-16	16	19839	16384
12	28-Dec-16	17	20383	17148
12	28-Dec-16	18	20704	18156
12	28-Dec-16	19	21023	17879
12	28-Dec-16	20	20895	17532
12	28-Dec-16	21	20518	17159
12	28-Dec-16	22	19679	16473
12	28-Dec-16	23	18804	15477
12	28-Dec-16	24	17599	14358
12	29-Dec-16	1	16970	13579
12	29-Dec-16	2	16591	13071
12	29-Dec-16	3	16424	12854
12	29-Dec-16	4	16441	12909
12	29-Dec-16	5	16522	13050
12	29-Dec-16	6	17276	13548
12	29-Dec-16	7	17840	14352
12	29-Dec-16	8	18989	15373
12	29-Dec-16	9	19312	15691
12	29-Dec-16	10	19571	16027
12	29-Dec-16	11	19785	16261
12	29-Dec-16	12	19906	16347
12	29-Dec-16	13	19972	16375
12	29-Dec-16	14	19672	16198
12	29-Dec-16	15	19658	16079
12	29-Dec-16	16	19608	15942
12	29-Dec-16	17	20227	16745
12	29-Dec-16	18	21026	17671
12	29-Dec-16	19	20968	17603
12	29-Dec-16	20	20642	17328
12	29-Dec-16	21	20325	17002
12	29-Dec-16	22	19824	16422
12	29-Dec-16	23	18852	15421
12	29-Dec-16	24	17792	14364
12	30-Dec-16	1	17214	13527
12	30-Dec-16	2	16621	13014
12	30-Dec-16	3	16482	12780
12	30-Dec-16	4	16195	12729

12	30-Dec-16	5	16258	12816
12	30-Dec-16	6	16728	13199
12	30-Dec-16	7	17531	14021
12	30-Dec-16	8	18104	14906
12	30-Dec-16	9	18614	15350
12	30-Dec-16	10	19051	15756
12	30-Dec-16	11	19367	16025
12	30-Dec-16	12	19282	16055
12	30-Dec-16	13	19289	16018
12	30-Dec-16	14	19110	15829
12	30-Dec-16	15	19109	15837
12	30-Dec-16	16	19445	16104
12	30-Dec-16	17	20232	16890
12	30-Dec-16	18	21182	17958
12	30-Dec-16	19	21034	17807
12	30-Dec-16	20	20679	17563
12	30-Dec-16	21	20475	17235
12	30-Dec-16	22	19840	16641
12	30-Dec-16	23	19080	15829
12	30-Dec-16	24	18143	14708
12	31-Dec-16	1	17788	13934
12	31-Dec-16	2	17235	13450
12	31-Dec-16	3	17024	13105
12	31-Dec-16	4	16794	12938
12	31-Dec-16	5	16719	12861
12	31-Dec-16	6	16825	12984
12	31-Dec-16	7	16636	13321
12	31-Dec-16	8	17700	13990
12	31-Dec-16	9	18172	14605
12	31-Dec-16	10	18709	15138
12	31-Dec-16	11	19072	15515
12	31-Dec-16	12	19115	15738
12	31-Dec-16	13	19255	15718
12	31-Dec-16	14	19057	15502
12	31-Dec-16	15	19008	15505
12	31-Dec-16	16	19079	15629
12	31-Dec-16	17	19970	16475
12	31-Dec-16	18	20648	17340
12	31-Dec-16	19	20309	16921
12	31-Dec-16	20	19673	16260
12	31-Dec-16	21	19160	15658
12	31-Dec-16	22	18436	15195
12	31-Dec-16	23	18045	14758
12	31-Dec-16	24	17562	14153

		Ontario Demand	Fraction of Annual Demand
	1	12384867	9%
	2	11471763	8%
	3	11302963	8%
	4	10409920	8%
	5	10470808	8%
	6	11101521	8%
	7	12497616	9%
	8	13113359	10%
	9	11072260	8%
	10	10518677	8%
	11	10697636	8%
	12	11948357	9%
Total		136989747	

RPP Period Start	Fraction of current yea	Fraction of next year's demand
May	50.2%	0
Nov	16.5%	33%

750 kWh/month	2010	2011	2012	2013	2014	2015
Electricity					68.78	75.51
Distribution					32.67	36.03
Transmission					10.25	11.92
Regulatory					4.5	4.68
DRC					5.25	5.25
Tax					15.79	17.34
OCEB					-13.72	-15.07
Total	104	105	112	116.41	123.51	135.65

2016
82.61
37.57
12.75
4.75
0
17.9
0
155.58

IESO analysis, revised from OPO.

HOEP (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 18.14	$ 23.93	$ 25.74	$ 27.17	$ 30.50	$ 34.24	$ 36.08

Class A GA (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 40.72	$ 39.88	$ 38.26	$ 36.87	$ 38.08	$ 33.27	$ 31.98

Class B GA (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 90.86	$ 88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 40.45	$ 34.82	$ 44.05	$ 39.06	$ 39.89	$ 39.22	$ 40.29	$ 41.66	$ 47.07	$ 46.06

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 30.20	$ 32.17	$ 29.84	$ 28.08	$ 30.08	$ 28.89	$ 26.21	$ 24.78	$ 21.63	$ 21.46

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 67.39	$ 71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29	$ 48.26	$ 47.88

2033	2034	2035
$ 48.01	$ 49.79	$ 55.81

2033	2034	2035
$ 19.52	$ 17.89	$ 12.63

2033	2034	2035
$ 43.54	$ 39.92	$ 28.18

Revised Base Case with updated share values (provided by Joyce Poon, IESO				
Residential Monthly Bills - Based on TOU Shares (65% Off-Peak, 17% Mid-Peak, 18% On-peak)				
Updated 2016 History with Revised share values on TOU rates	**2016 Act**		**2017**	
Distribution	$	39.91	$	41.61
Transmission	$	12.80	$	13.10
Regulated Charges (Wholesale Uplift and DRC)	$	4.88	$	5.72
DRC	$	-	$	-
Commodity	$	82.50	$	85.00
Total Bill before Taxes	$	140.08	$	145.43
HST	$	18.21	$	18.91
8% Rebate on Bill before Taxes	$	-	$	(11.63)
Total Bill After Rebate	**$**	**158.29**	**$**	**152.71**

Feb 17, 2017)		
2018	2019	2020
$ 43.26	$ 44.88	$ 46.71
$ 13.40	$ 13.79	$ 14.67
$ 5.89	$ 5.99	$ 6.21
$ -	$ -	$ -
$ 85.31	$ 85.71	$ 92.23
$ 147.86	$ 150.36	$ 159.82
$ 19.22	$ 19.55	$ 20.78
$ (11.83)	$ (12.03)	$ (12.79)
$ 155.25	$ 157.88	$ 167.81

	2021		**2022**		**2023**
$	48.17	$	49.50	$	51.14
$	14.93	$	15.58	$	15.86
$	6.50	$	6.70	$	7.07
$	-	$	-	$	-
$	88.37	$	89.29	$	91.42
$	157.96	$	161.06	$	165.49
$	20.54	**$**	**20.94**	**$**	**21.51**
$	(12.64)	$	(12.89)	$	(13.24)
$	165.86	$	169.12	$	173.77

	2024	2025	2026	2027
$	52.59	$ 54.35	$ 55.70	$ 57.37
$	16.12	$ 16.50	$ 16.90	$ 17.26
$	7.13	$ 7.75	$ 7.85	$ 8.04
$	-	$ -	$ -	$ -
$	92.18	$ 97.56	$ 91.49	$ 98.19
$	168.02	$ 176.17	$ 171.94	$ 180.86
$	**21.84**	**$ 22.90**	**$ 22.35**	**$ 23.51**
$	(13.44)	$ (14.09)	$ (13.76)	$ (14.47)
$	176.42	$ 184.97	$ 180.54	$ 189.90

	2028	2029	2030	2031
$	58.60	$ 60.02	$ 61.47	$ 62.99
$	17.57	$ 17.92	$ 18.26	$ 18.60
$	8.16	$ 8.34	$ 8.48	$ 8.78
$	-	$ -	$ -	$ -
$	97.05	$ 94.28	$ 94.41	$ 94.68
$	181.38	$ 180.57	$ 182.61	$ 185.05
$	**23.58**	**$ 23.47**	**$ 23.74**	**$ 24.06**
$	(14.51)	$ (14.45)	$ (14.61)	$ (14.80)
$	190.45	$ 189.59	$ 191.74	$ 194.31

	2032	2033	2034	2035
$	64.35	$ 65.56	$ 66.60	$ 67.41
$	18.92	$ 20.05	$ 20.30	$ 20.54
$	8.80	$ 8.98	$ 9.10	$ 9.36
$	-	$ -	$ -	$ -
$	95.17	$ 94.61	$ 94.55	$ 90.30
$	187.25	$ 189.19	$ 190.56	$ 187.60
$	**24.34**	**$ 24.59**	**$ 24.77**	**$ 24.39**
$	(14.98)	$ (15.14)	$ (15.24)	$ (15.01)
$	196.61	$ 198.65	$ 200.09	$ 196.98

From:	Ronald Kwan
To:	John Kim; Bruno Amara
Cc:	Didem Proulx (MTCU); Gavin He
Subject:	FW: Energy Models
Date:	Wednesday, April 12, 2017 5:41:31 PM
Attachments:	GA Financing Model v9.xlsx GA Financing - by RPP period 170404.xlsm
Importance:	High
Sensitivity:	Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

InpC

Active Case		1					1	2	3	4	5
		Constant	**Unit**	**Comment**							
FORECAST INPUT											
Active Case		1	-		2		1	2	3	4	5
Comparison Case		1			2						
Case Description		ENERGY Base Case					ENERGY Base Case	ENERGY 20% Initial Reduction	ENERGY 18% Initial Reduction	Higher Gas Price Sensitivity	Federal CO2 Price
TIMING ASSUMPTIONS											
Forecast Period Labels											
From now to Commercial Operations Date or In-service Date		Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD
From COD or In-service Date to End of Operations		Operations	timeline label		-		Operations	Operations	Operations	Operations	Operations
From End of Operations and beyond		Post-Operation	timeline label		-		Post-Operations	Post-Operations	Post-Operations	Post-Operation	Post-Operation
Forecast Period Dates and Durations											
1st model column start date - Annual		01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017
Commercial Operation Date/1st Balance Sheet Date		31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
Months per Construction Model period		1	months		-		1	1	1	1	1
Length of Operations period		30	years		-		30	30	30	30	30
Length of Regulation period		-	years		-		-	-	-	-	-
Last Regulation Period		31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
Months per Operations Model period		12	months		-		12	12	12	12	12
Financial year end month number		12	month #		-		12	12	12	12	12
Financial year middle month number		6	month #		-		6	6	6	6	6
Annual to Semi Annual Conversion Factor (Dynamic)		1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	1.0000
` Inflation		2.00%	%				2.00%	2.00%	2.00%	2.00%	2.00%
TECHNICAL ASSUMPTIONS											
Accumulate Interst?		1	toggle		-		1	1	1	1	1
RPP Share of Consumption		50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	50.00%
Average Household Demand		1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	0.75
Year to Start Paying Back		2030	Year	Source: ENERGY			2030	2029	2030	2030	2030
Year to Finish Paying Back		2047	Year	Source: ENERGY			2047	2047	2050	2047	2047
Amortization Length							18	19	21	18	18
Public Debt Scenario?		0	toggle								
Sensitivity Incremental to Ministry Scenario?		0	toggle							1	1
DEBT ASSUMPTIONS											
Interest Rate Sensitivity Scenario?		-	toggle				-	-	-	-	-
Interest Rate Sensitivity		-	%		-						
All-in debt interest rate		5.00%	%		-		5.00%	5.00%	5.00%	5.00%	5.00%
NON CHANGEABLE MODEL TECHNICAL INPUTS											
Units in thousand		1,000	units/000s								

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**InpC**														
2															
3															
4					Active Case	1					1	2	3	4	5
5						**Constant**	**Unit**	**Comment**							
53					Hours per day	24	hours/day								
54					Nominal days per year	365	days/year								
55					Months in a year	12	months								
56					Cents per dollar	100	¢/$								
57					Standard Monetary Unit	$ 000s	name	"= smu"							
58					% to bps conversion factor	10,000	factor								
59					Annual to Semi-Annual Conversion Factor	0.5000	factor								
60					Semi annual periods in a year	2	periods								
61															
62	**CCA RATES**														
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet										
64					Class 1	4.00%	%								
65					Class 2	6.00%	%								
66					Class 3	5.00%	%								
67					Class 8	20.00%	%								
68					Class 43.2	50.00%	%								
69					Class 12	100.00%	%								
70					Class 17	8.00%	%								
71					Class 26	5.00%	%								
72					Class 42	12.00%	%								
73					Class 48	15.00%	%								
74					Tax Goodwill	5.25%	%								
75					Land	-	%								

InpC

4	Active Case	1					6	7	8	9	10	11
5		**Constant**	**Unit**	**Comment**								
7	**FORECAST INPUT**											
8	Active Case	1	-		2		6	7	8	9	10	11
9	Comparison Case	1			2							
10	Case Description	ENERGY Base Case					66.7 cent CAD	5 Year Reduction	30% BP Cost	7% IR	6 Year Reduction /25 Year Amortization	Low Demand
13	**TIMING ASSUMPTIONS**											
14	**Forecast Period Labels**											
15	From now to Commercial Operations Date or In-service Date	Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD	Pre-COD
16	From COD or In-service Date to End of Operations	Operations	timeline label		-		Operations	Operations	Operations	Operations	Operations	Operations
17	From End of Operations and beyond	Post-Operation	timeline label		-		Post-Operation	Post-Operation	Post-Operation	Post-Operation	Post-Operation	Post-Operation
19	**Forecast Period Dates and Durations**											
20	1st model column start date - Annual	01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017
21	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
22	Months per Construction Model period	1	months		-		1	1	1	1	1	1
23	Length of Operations period	30	years		-		30	30	30	30	30	30
24	Length of Regulation period	-	years		-		-	-	-	-	-	-
25	Last Regulation Period	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022
26	Months per Operations Model period	12	months		-		12	12	12	12	12	12
27	Financial year end month number	12	month #		-		12	12	12	12	12	12
28	Financial year middle month number	6	month #		-		6	6	6	6	6	6
29	Annual to Semi Annual Conversion Factor (Dynamic)	1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	` Inflation	2.00%	%				2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
34	**TECHNICAL ASSUMPTIONS**											
35	Accumulate Interst?	1	toggle		-		1	1	1	1	1	1
36	RPP Share of Consumption	50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
37	Average Household Demand	1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	0.75	0.75
38	Year to Start Paying Back	2030	Year	Source: ENERGY			2030	2022	2030	2030	2023	2030
39	Year to Finish Paying Back	2047	Year	Source: ENERGY			2047	2042	2047	2047	2047	2047
40	Amortization Length						18	21	18	18	25	18
41	Public Debt Scenario?	0	toggle					1			1	
42	Sensitivity Incremental to Ministry Scenario?	0	toggle				1		1			1
44	**DEBT ASSUMPTIONS**											
45	Interest Rate Sensitivity Scenario?	-	toggle				-	-	-	1	-	-
46	Interest Rate Sensitivity	-	%		-					7.00%		
47	All-in debt interest rate	5.00%	%		-		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
50	**NON CHANGEABLE MODEL TECHNICAL INPUTS**											
52	Units in thousand	1,000	units/000s									

	A	B	C	D	E	F	G	H	I	J	P	Q	R	S	T	U
1	**InpC**															
2																
3																
4					Active Case	1					6	7	8	9	10	11
5						**Constant**	**Unit**	**Comment**								
53					Hours per day	24	hours/day									
54					Nominal days per year	365	days/year									
55					Months in a year	12	months									
56					Cents per dollar	100	¢/$									
57					Standard Monetary Unit	$ 000s	name	"= smu"								
58					% to bps conversion factor	10,000	factor									
59					Annual to Semi-Annual Conversion Factor	0.5000	factor									
60					Semi annual periods in a year	2	periods									
61																
62	**CCA RATES**															
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet											
64					Class 1	4.00%	%									
65					Class 2	6.00%	%									
66					Class 3	5.00%	%									
67					Class 8	20.00%	%									
68					Class 43.2	50.00%	%									
69					Class 12	100.00%	%									
70					Class 17	8.00%	%									
71					Class 26	5.00%	%									
72					Class 42	12.00%	%									
73					Class 48	15.00%	%									
74					Tax Goodwill	5.25%	%									
75					Land	-	%									

InpC

	E	F	G	H	I	J	V	W	X	Y	Z
4	Active Case	1					12	13	14	15	
5		**Constant**	**Unit**	**Comment**							
7	**FORECAST INPUT**										
8	Active Case	1	-		2		12	13	14	15	
9	Comparison Case	1			2						
10	Case Description	ENERGY Base Case					Double High Gas Price	Feb 27 Min Scenario	Feb 27 Min Scenario	High Demand	
13	**TIMING ASSUMPTIONS**										
14	**Forecast Period Labels**										
15	From now to Commercial Operations Date or In-service Date	Pre-COD	timeline label		-		Pre-COD	Pre-COD	Pre-COD	Pre-COD	
16	From COD or In-service Date to End of Operations	Operations	timeline label		-		Operations	Operations	Operations	Operations	
17	From End of Operations and beyond	Post-Operation	timeline label		-		Post-Operation	Post-Operation	Post-Operation	Post-Operations	
19	**Forecast Period Dates and Durations**										
20	1st model column start date - Annual	01 Jan 2017	date		-		01 Jan 2017	01 Jan 2017	01 Jan 2017	01 Jan 2017	
21	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	
22	Months per Construction Model period	1	months		-		1	1	1	1	
23	Length of Operations period	30	years		-		30	30	30	30	
24	Length of Regulation period	-	years		-		-	-	-	-	
25	Last Regulation Period	31 Jan 2022	date		-		31 Jan 2022	31 Jan 2022	31 Jan 2022	31 Jan 2022	
26	Months per Operations Model period	12	months		-		12	12	12	12	
27	Financial year end month number	12	month #		-		12	12	12	12	
28	Financial year middle month number	6	month #		-		6	6	6	6	
29	Annual to Semi Annual Conversion Factor (Dynamic)	1.0000	factor		-		1.0000	1.0000	1.0000	1.0000	
30	` Inflation	2.00%	%				2.00%	2.00%	2.00%	2.00%	
34	**TECHNICAL ASSUMPTIONS**										
35	Accumulate Interst?	1	toggle		-		1	1	1	1	
36	RPP Share of Consumption	50.00%	%	Source: ENERGY			50.00%	50.00%	50.00%	50.00%	
37	Average Household Demand	1	MWh	Source: ENERGY	-		0.75	0.75	0.75	0.75	
38	Year to Start Paying Back	2030	Year	Source: ENERGY			2030	2025	2025	2030	
39	Year to Finish Paying Back	2047	Year	Source: ENERGY			2047	2047	2047	2047	
40	Amortization Length						18	23	23	18	
41	Public Debt Scenario?	0	toggle								
42	Sensitivity Incremental to Ministry Scenario?	0	toggle				1			1	
44	**DEBT ASSUMPTIONS**										
45	Interest Rate Sensitivity Scenario?	-	toggle				-	-	1	-	
46	Interest Rate Sensitivity	-	%		-				7.00%		
47	All-in debt interest rate	5.00%	%		-		5.00%	5.00%	5.00%	5.00%	
50	**NON CHANGEABLE MODEL TECHNICAL INPUTS**										
52	Units in thousand	1,000	units/000s								

	A	B	C	D	E	F	G	H	I	J	V	W	X	Y	Z
1	**InpC**														
2															
3															
4					Active Case	1					12	13	14	15	
5						**Constant**	**Unit**	**Comment**							
53					Hours per day	24	hours/day								
54					Nominal days per year	365	days/year								
55					Months in a year	12	months								
56					Cents per dollar	100	¢/$								
57					Standard Monetary Unit	$ 000s	name	"= smu"							
58					% to bps conversion factor	10,000	factor								
59					Annual to Semi-Annual Conversion Factor	0.5000	factor								
60					Semi annual periods in a year	2	periods								
61															
62	**CCA RATES**														
63					Note: Allocate Capital to CCA Classes on "CCA" worksheet										
64					Class 1	4.00%	%								
65					Class 2	6.00%	%								
66					Class 3	5.00%	%								
67					Class 8	20.00%	%								
68					Class 43.2	50.00%	%								
69					Class 12	100.00%	%								
70					Class 17	8.00%	%								
71					Class 26	5.00%	%								
72					Class 42	12.00%	%								
73					Class 48	15.00%	%								
74					Tax Goodwill	5.25%	%								
75					Land	-	%								

InpS

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
12	***Debt Borrowing/Payment Schedule***					**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					12,095	11,835	11,552	12,168	10,844	10,634	10,243	11,128	10,527
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					9,595	9,327	9,051	9,094	8,184	8,374	8,569	8,768	8,972
17	Amount borrowed (negative) or paid back (positive) in present year					-2,501	-2,508	-2,501	-3,075	-2,660	-2,260	-1,675	-2,360	-1,555
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-128	-263	-404	-582	-748	-902	-1,034	-1,207
19	Total change of debt account in present year					-2,501	-2,636	-2,764	-3,479	-3,242	-3,008	-2,577	-3,394	-2,763
20	Accumulated debt in present year					-2,501	-5,136	-7,900	-11,379	-14,621	-17,629	-20,205	-23,599	-26,362
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					10,346	10,093	9,827	9,886	8,991	9,200	9,414	9,633	9,857
23	Amount borrowed (negative) or paid back (positive) in present year					-1,749	-1,742	-1,725	-2,283	-1,852	-1,433	-829	-1,495	-670
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-89	-183	-281	-412	-528	-628	-703	-815
25	Total change of debt account in present year					-1,749	-1,831	-1,908	-2,564	-2,264	-1,961	-1,457	-2,198	-1,485
26	Accumulated debt in present year					-1,749	-3,580	-5,488	-8,052	-10,316	-12,278	-13,735	-15,933	-17,418
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					10,648	10,303	10,186	10,873	9,733	9,573	9,240	10,128	9,620
29	Amount borrowed (negative) or paid back (positive) in present year					-1,447	-1,532	-1,366	-1,296	-1,110	-1,061	-1,004	-1,000	-907
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					0	-74	-156	-234	-312	-385	-459	-534	-612
31	Total change of debt account in present year					-1,447	-1,606	-1,522	-1,530	-1,423	-1,446	-1,463	-1,534	-1,520
32	Accumulated debt in present year					-1,447	-3,053	-4,575	-6,105	-7,527	-8,973	-10,436	-11,970	-13,490
35	***Debt Borrowing/Payment Schedule***					**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					12,095	11,835	11,552	12,168	10,844	10,634	10,243	11,128	10,527
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					9,595	9,327	9,051	9,094	8,184	8,374	8,569	8,768	8,972
40	Accumulated debt in present year (including 5% interest, compounded monthly)					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					10,346	10,093	9,827	9,886	8,991	9,200	9,414	9,633	9,857
43	Accumulated debt in present year (including 5% interest, compounded monthly)					1,749	3,580	5,488	8,052	10,316	12,278	13,735	15,933	17,418
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					10,648	10,303	10,186	10,873	9,733	9,573	9,240	10,128	9,620
46	Accumulated debt in present year (including 5% interest, compounded monthly)					1,447	3,053	4,575	6,105	7,527	8,973	10,436	11,970	13,490

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
3														
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
5														
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
47	*Source: Ministry of Energy*													
48														
49	ENERGY Base Case					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
50	ENERGY 20% Initial Reduction					1,749	1,742	1,725	2,283	1,852	1,433	829	1,495	670
51	ENERGY 18% Initial Reduction					1,447	1,532	1,366	1,296	1,110	1,061	1,004	1,000	907
52	Higher Gas Price Sensitivity					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
53	Federal CO2 Price					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
54	66.7 cent CAD					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
55	5 year reduction / 21 Year Amortization													
56	30% BP Cost					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
57	7% IR					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
58	6 Year / 25 Year Amortization													
59	Low Demand					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
60	Double High Gas Price					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
61	Feb 27 Min Scenario					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093	-215
62	Feb 27 7% IR					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093	-215
63	High Demand					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
64	Annual Ratepayer Borrowing for GA (Repayment)					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity					18	41	59	156	219	287	555	452	836
70	Federal CO2 Price					0	10	18	60	93	129	206	128	204
71	66.7 cent CAD					0	15	28	89	101	126	227	156	279
72	5 year reduction / 21 Year Amortization					2,501	2,508	2,501	3,075	2,660				
73	30% BP Cost					948	840	997	854	829	929	780	941	912
74	7% IR													
75	6 Year / 25 Year Amortization					2,501	2,508	2,501	3,075	2,660	2,260			
76	Low Demand					74	149	254	302	372	419	267	420	137
77	Double High Gas Price					33	82	116	302	435	587	1,164	868	1,634
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand					-46	-135	-247	-295	-382	-440	-224	-439	-244
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					143	143	142	142	142	142	142	142	142
85	ENERGY 20% Initial Reduction					143	143	142	142	142	142	142	142	142
86	ENERGY 18% Initial Reduction					143	143	142	142	142	142	142	142	142
87	Higher Gas Price Sensitivity					143	143	142	142	142	142	142	142	142
88	Federal CO2 Price					143	143	142	142	142	142	142	142	142
89	66.7 cent CAD					143	143	142	142	142	142	142	142	142
90	5 year reduction / 21 Year Amortization					143	143	142	142	142	142	142	142	142
91	30% BP Cost					143	143	142	142	142	142	142	142	142
92	7% IR					143	143	142	142	142	142	142	142	142
93	6 Year / 25 Year Amortization					143	143	142	142	142	142	142	142	142
94	Low Demand					142	141	139	138	136	135	135	134	133
95	Double High Gas Price					143	143	142	142	142	142	142	142	142
96	Feb 27 Min Scenario					143	143	142	142	142	142	142	142	142
97	Feb 27 7% IR					143	143	142	142	142	142	142	142	142
98	High Demand					144	145	145	147	149	150	152	154	156
99	Total Electricity Demand					143	143	142	142	142	142	142	142	142
100														
101	Base Electricity Demand					143	143	142	142	142	142	142	142	142

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
3														
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
5														
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
102														
103	ENERGY Base Residential Bill					153	155	158	168	166	169	174	176	185
104														
105	Low Demand					(18)	(50)	(81)	(146)	(190)	(242)	(438)	(423)	(750)
106														
107														
108	OPG Base Demand					140	140	141	142	142	142	143	145	145
109	OPG High Demand (Outlook D)					140	142	144	147	148	151	154	157	160
110	OPG Low Demand (Outlook A)					139	138	137	137	136	136	136	137	136
111	OPG High Demand Delta					0.8	2.1	3.4	4.9	6.6	8.4	10.2	12.3	14.4
112	OPG Low Demand Delta					(1.0)	(2.1)	(3.3)	(4.5)	(5.6)	(6.6)	(7.4)	(8.2)	(9.0)
113														
114														
115	Change in Unit Electricity Cost -Low Demand					0.52	1.04	1.79	2.13	2.62	2.95	1.88	2.96	0.96
116	Change in Unit Electricity Cost -High Demand					(0.32)	(0.94)	(1.74)	(2.08)	(2.69)	(3.10)	(1.58)	(3.09)	(1.72)
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	0.52	1.04	1.79	2.13	2.62	2.95	1.88	2.96	0.96
120	Total Electricity Demand	-	-	-	-	143	143	142	142	142	142	142	142	142
121	Additional Cost from Low Demand					74	149	254	302	372	419	267	420	137
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	(0)	(1)	(2)	(2)	(3)	(3)	(2)	(3)	(2)
124	Total Electricity Demand	-	-	-	-	143	143	142	142	142	142	142	142	142
125	Additional Savings from High Demand					(46)	(135)	(247)	(295)	(382)	(440)	(224)	(439)	(244)

InpS

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
12	***Debt Borrowing/Payment Schedule***					**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					10,033	11,043	10,819	10,009	9,721	8,654	8,820	8,238	7,756
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					9,180	9,394	9,612	9,835	10,064	10,298	10,537	10,782	11,033
17	Amount borrowed (negative) or paid back (positive) in present year					-853	-1,649	-1,207	-173	343	1,644	1,718	2,544	3,277
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,349	-1,461	-1,620	-1,765	-1,864	-1,942	-1,957	-1,970	-1,940
19	Total change of debt account in present year					-2,202	-3,111	-2,828	-1,938	-1,522	-299	-240	575	1,336
20	Accumulated debt in present year					-28,564	-31,674	-34,502	-36,440	-37,962	-38,260	-38,500	-37,925	-36,589
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					10,086	10,321	10,560	10,806	11,057	10,555	10,720	10,138	9,657
23	Amount borrowed (negative) or paid back (positive) in present year					53	-722	-259	797	1,336	1,900	1,900	1,900	1,900
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-891	-934	-1,019	-1,084	-1,099	-1,087	-1,045	-1,001	-955
25	Total change of debt account in present year					-838	-1,656	-1,277	-287	237	814	855	899	945
26	Accumulated debt in present year					-18,256	-19,913	-21,190	-21,477	-21,240	-20,426	-19,571	-18,672	-17,727
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					9,238	10,318	10,253	9,956	10,007	9,167	9,538	9,264	9,366
29	Amount borrowed (negative) or paid back (positive) in present year					-796	-725	-566	-52	286	513	718	1,026	1,610
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-690	-766	-842	-915	-964	-999	-1,024	-1,039	-1,040
31	Total change of debt account in present year					-1,486	-1,491	-1,409	-967	-678	-486	-305	-13	570
32	Accumulated debt in present year					-14,976	-16,467	-17,876	-18,843	-19,521	-20,007	-20,312	-20,325	-19,755
35	***Debt Borrowing/Payment Schedule***					**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					10,033	11,043	10,819	10,009	9,721	8,654	8,820	8,238	7,756
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					9,180	9,394	9,612	9,835	10,064	10,298	10,537	10,782	11,033
40	Accumulated debt in present year (including 5% interest, compounded monthly)					28,564	31,674	34,502	36,440	37,962	38,260	38,500	37,925	36,589
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					10,086	10,321	10,560	10,806	11,057	10,555	10,720	10,138	9,657
43	Accumulated debt in present year (including 5% interest, compounded monthly)					18,256	19,913	21,190	21,477	21,240	20,426	19,571	18,672	17,727
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					9,238	10,318	10,253	9,956	10,007	9,167	9,538	9,264	9,366
46	Accumulated debt in present year (including 5% interest, compounded monthly)					14,976	16,467	17,876	18,843	19,521	20,007	20,312	20,325	19,755

InpS

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
47	*Source: Ministry of Energy*													
49	ENERGY Base Case					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
50	ENERGY 20% Initial Reduction					-53	722	259	-797	-1,336	-1,900	-1,900	-1,900	-1,900
51	ENERGY 18% Initial Reduction					796	725	566	52	-286	-513	-718	-1,026	-1,610
52	Higher Gas Price Sensitivity					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
53	Federal CO2 Price					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
54	66.7 cent CAD					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
55	5 year reduction / 21 Year Amortization													
56	30% BP Cost					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
57	7% IR					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
58	6 Year / 25 Year Amortization													
59	Low Demand					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
60	Double High Gas Price					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
61	Feb 27 Min Scenario					-1,464	-1,264	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
62	Feb 27 7% IR					-1,464	-1,264	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
63	High Demand					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
64	Annual Ratepayer Borrowing for GA (Repayment)					853	1,649	1,207	173	-343	-1,644	-1,718	-2,544	-3,277
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity					744	729	663	629	632	666	607	545	534
70	Federal CO2 Price					162	143	117	87	84	74	55	38	26
71	66.7 cent CAD					242	241	220	222	218	232	212	193	194
72	5 year reduction / 21 Year Amortization													
73	30% BP Cost					883	966	999	1099	1055	1069	1122	1230	1307
74	7% IR													
75	6 Year / 25 Year Amortization													
76	Low Demand					194	267	294	349	211	211	214	274	311
77	Double High Gas Price					1,436	1,417	1,290	1,191	1,265	1,327	1,220	1,112	1,095
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand					-350	-460	-493	-409	-438	-372	-340	-371	-454
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					141	142	142	142	143	143	144	145	146
85	ENERGY 20% Initial Reduction					141	142	142	142	143	143	144	145	146
86	ENERGY 18% Initial Reduction					141	142	142	142	143	143	144	145	146
87	Higher Gas Price Sensitivity					141	142	142	142	143	143	144	145	146
88	Federal CO2 Price					141	142	142	142	143	143	144	145	146
89	66.7 cent CAD					141	142	142	142	143	143	144	145	146
90	5 year reduction / 21 Year Amortization					141	142	142	142	143	143	144	145	146
91	30% BP Cost					141	142	142	142	143	143	144	145	146
92	7% IR					141	142	142	142	143	143	144	145	146
93	6 Year / 25 Year Amortization					141	142	142	142	143	143	144	145	146
94	Low Demand					132	132	131	130	131	130	131	132	132
95	Double High Gas Price					141	142	142	142	143	143	144	145	146
96	Feb 27 Min Scenario					141	142	142	142	143	143	144	145	146
97	Feb 27 7% IR					141	142	142	142	143	143	144	145	146
98	High Demand					158	161	164	166	170	173	177	181	185
99	Total Electricity Demand					141	142	142	142	143	143	144	145	146
100														
101	Base Electricity Demand					141	142	142	142	143	143	144	145	146

	A	B	C	D	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
3																		
4					Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
102																		
103					ENERGY Base Residential Bill					181	190	190	190	192	194	197	199	200
104																		
105					Low Demand					(736)	(780)	(794)	(764)	(934)	(978)	(982)	(978)	(1,007)
106																		
107																		
108					OPG Base Demand					146	147	148	149	150	150	151	153	154
109					OPG High Demand (Outlook D)					163	166	170	173	177	180	184	188	193
110					OPG Low Demand (Outlook A)					137	137	137	137	138	138	138	139	140
111					OPG High Demand Delta					16.8	19.2	21.7	24.2	26.9	29.7	32.6	35.7	39.0
112					OPG Low Demand Delta					(9.5)	(10.3)	(11.1)	(11.6)	(12.1)	(12.6)	(13.0)	(13.5)	(14.0)
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand					1.37	1.88	2.07	2.46	1.47	1.48	1.49	1.89	2.13
116					Change in Unit Electricity Cost -High Demand					(2.48)	(3.24)	(3.47)	(2.88)	(3.06)	(2.60)	(2.36)	(2.56)	(3.11)
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	1.37	1.88	2.07	2.46	1.47	1.48	1.49	1.89	2.13
120					Total Electricity Demand	-	-	-	-	141	142	142	142	143	143	144	145	146
121					Additional Cost from Low Demand					194	267	294	349	211	211	214	274	311
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	(2)	(3)	(3)	(3)	(3)	(3)	(2)	(3)	(3)
124					Total Electricity Demand	-	-	-	-	141	142	142	142	143	143	144	145	146
125					Additional Savings from High Demand					(350)	(460)	(493)	(409)	(438)	(372)	(340)	(371)	(454)

InpS

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
12	***Debt Borrowing/Payment Schedule***					**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					5,662	5,389	5,129	4,881	4,645	4,421	4,207	4,004	3,811
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					9,585	9,311	9,051	8,803	8,567	8,343	8,130	7,926	7,733
17	Amount borrowed (negative) or paid back (positive) in present year					3,922	3,922	3,922	3,922	3,922	3,922	3,922	3,922	3,922
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,872	-1,767	-1,657	-1,541	-1,419	-1,291	-1,156	-1,015	-866
19	Total change of debt account in present year					2,050	2,155	2,266	2,382	2,503	2,631	2,766	2,908	3,056
20	Accumulated debt in present year					-34,538	-32,383	-30,117	-27,736	-25,232	-22,601	-19,835	-16,927	-13,871
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					7,563	7,289	7,029	6,781	6,545	6,321	6,108	5,904	5,711
23	Amount borrowed (negative) or paid back (positive) in present year					1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-907	-856	-803	-746	-687	-625	-560	-492	-420
25	Total change of debt account in present year					993	1,044	1,098	1,154	1,213	1,275	1,340	1,409	1,481
26	Accumulated debt in present year					-16,733	-15,689	-14,591	-13,438	-12,225	-10,950	-9,610	-8,201	-6,720
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					7,879	7,837	7,587	7,441	6,978	6,544	6,160	5,805	5,348
29	Amount borrowed (negative) or paid back (positive) in present year					2,217	2,448	2,459	2,560	2,333	2,123	1,952	1,801	1,538
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-1,011	-949	-872	-791	-701	-617	-540	-468	-400
31	Total change of debt account in present year					1,206	1,499	1,586	1,769	1,633	1,506	1,412	1,333	1,138
32	Accumulated debt in present year					-18,549	-17,050	-15,464	-13,694	-12,062	-10,556	-9,143	-7,810	-6,672
35	***Debt Borrowing/Payment Schedule***					**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					5,662	5,389	5,129	4,881	4,645	4,421	4,207	4,004	3,811
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					9,585	9,311	9,051	8,803	8,567	8,343	8,130	7,926	7,733
40	Accumulated debt in present year (including 5% interest, compounded monthly)					34,538	32,383	30,117	27,736	25,232	22,601	19,835	16,927	13,871
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					7,563	7,289	7,029	6,781	6,545	6,321	6,108	5,904	5,711
43	Accumulated debt in present year (including 5% interest, compounded monthly)					16,733	15,689	14,591	13,438	12,225	10,950	9,610	8,201	6,720
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					7,879	7,837	7,587	7,441	6,978	6,544	6,160	5,805	5,348
46	Accumulated debt in present year (including 5% interest, compounded monthly)					18,549	17,050	15,464	13,694	12,062	10,556	9,143	7,810	6,672

	A	B	C	D	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3																		
4					Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
50					ENERGY 20% Initial Reduction					-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900	-1,900
51					ENERGY 18% Initial Reduction					-2,217	-2,448	-2,459	-2,560	-2,333	-2,123	-1,952	-1,801	-1,538
52					Higher Gas Price Sensitivity					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
53					Federal CO2 Price					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
54					66.7 cent CAD					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
55					5 year reduction / 21 Year Amortization													
56					30% BP Cost					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
57					7% IR					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
58					6 Year / 25 Year Amortization													
59					Low Demand					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
60					Double High Gas Price					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
61					Feb 27 Min Scenario					-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
62					Feb 27 7% IR					-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736	-1,736
63					High Demand					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
64					Annual Ratepayer Borrowing for GA (Repayment)					-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922	-3,922
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity					549	581	563	563	563	563	563	563	563
70					Federal CO2 Price					14	41	41	41	41	41	41	41	41
71					66.7 cent CAD					200	206	206	206	206	206	206	206	206
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost					1292	1204	1204	1204	1204	1204	1204	1204	1204
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand					292	261	261	261	261	261	261	261	261
77					Double High Gas Price					1,122	1205	1151	1151	1151	1151	1151	1151	1151
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand					-229	-353	-353	-353	-353	-353	-353	-353	-353
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					148	149	149	150	150	151	152	152	153
85					ENERGY 20% Initial Reduction					148	149	149	150	150	151	152	152	153
86					ENERGY 18% Initial Reduction					148	149	149	150	150	151	152	152	153
87					Higher Gas Price Sensitivity					148	149	149	150	150	151	152	152	153
88					Federal CO2 Price					148	149	149	150	150	151	152	152	153
89					66.7 cent CAD					148	149	149	150	150	151	152	152	153
90					5 year reduction / 21 Year Amortization					148	149	149	150	150	151	152	152	153
91					30% BP Cost					148	149	149	150	150	151	152	152	153
92					7% IR					148	149	149	150	150	151	152	152	153
93					6 Year / 25 Year Amortization					148	149	149	150	150	151	152	152	153
94					Low Demand					134	134	135	135	136	136	137	138	138
95					Double High Gas Price					148	149	149	150	150	151	152	152	153
96					Feb 27 Min Scenario					148	149	149	150	150	151	152	152	153
97					Feb 27 7% IR					148	149	149	150	150	151	152	152	153
98					High Demand					191	191	192	193	194	194	195	196	197
99					Total Electricity Demand					148	149	149	150	150	151	152	152	153
100																		
101					Base Electricity Demand					148	149	149	150	150	151	152	152	153

	A	B	C	D	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3																		
4					Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
102																		
103					ENERGY Base Residential Bill					197	198	199	199	200	201	202	203	204
104																		
105					Low Demand					(1,033)	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand					155	156	156	157	158	158	159	160	160
109					OPG High Demand (Outlook D)					198	199	199	200	201	202	203	204	204
110					OPG Low Demand (Outlook A)					141	141	142	143	143	144	144	145	146
111					OPG High Demand Delta					42.5	42.7	42.9	43.0	43.2	43.4	43.6	43.8	43.9
112					OPG Low Demand Delta					(14.4)	(14.5)	(14.5)	(14.6)	(14.6)	(14.7)	(14.8)	(14.8)	(14.9)
113											0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%
114																		
115					Change in Unit Electricity Cost -Low Demand					1.98								
116					Change in Unit Electricity Cost -High Demand					(1.54)								
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	1.98	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	148	149	149	150	150	151	152	152	153
121					Additional Cost from Low Demand					292	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	(2)	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	148	149	149	150	150	151	152	152	153
125					Additional Savings from High Demand					(229)	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
12	***Debt Borrowing/Payment Schedule***					**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**		
13	***($ million)***													
14	IESO GA cost forecast + extrapolation					3,627	3,451	3,285	3,126	2,975	2,831	2,695		
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment					7,549	7,374	7,207	7,048	2,975	2,831	2,695		
17	Amount borrowed (negative) or paid back (positive) in present year					3,922	3,922	3,922	3,922	0	0	0		
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-710	-545	-373	-191	0	0	0		
19	Total change of debt account in present year					3,213	3,377	3,550	3,731	0	0	0		
20	Accumulated debt in present year					-10,658	-7,281	-3,731	0	0	0	0		
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment					5,527	5,352	5,185	5,026	2,975	2,831	2,695		
23	Amount borrowed (negative) or paid back (positive) in present year					1,900	1,900	1,900	1,900	0	0	0		
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-344	-264	-180	-92	0	0	0		
25	Total change of debt account in present year					1,556	1,636	1,720	1,808	0	0	0		
26	Accumulated debt in present year					-5,164	-3,528	-1,808	0	0	0	0		
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment					4,712	4,007	3,619	3,425	3,156	3,011	2,878		
29	Amount borrowed (negative) or paid back (positive) in present year					1,085	555	334	298	180	180	183		
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)					-341	-303	-290	-288	-288	-293	-299		
31	Total change of debt account in present year					744	252	43	10	-107	-113	-115		
32	Accumulated debt in present year					-5,928	-5,676	-5,633	-5,623	-5,730	-5,843	-5,959		
35	***Debt Borrowing/Payment Schedule***					**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**		
36	***($ million)***													
37	IESO GA cost forecast + extrapolation					3,627	3,451	3,285	3,126	2,975	2,831	2,695		
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment					7,549	7,374	7,207	7,048	2,975	2,831	2,695		
40	Accumulated debt in present year (including 5% interest, compounded monthly)					10,658	7,281	3,731	0	0	0	0		
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment					5,527	5,352	5,185	5,026	2,975	2,831	2,695		
43	Accumulated debt in present year (including 5% interest, compounded monthly)					5,164	3,528	1,808	0	0	0	0		
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment					4,712	4,007	3,619	3,425	3,156	3,011	2,878		
46	Accumulated debt in present year (including 5% interest, compounded monthly)					5,928	5,676	5,633	5,623	5,730	5,843	5,959		

	A	B	C	D	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3																		
4					Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case					-3,922	-3,922	-3,922	-3,922	0	0	0		
50					ENERGY 20% Initial Reduction					-1,900	-1,900	-1,900	-1,900	0	0	0		
51					ENERGY 18% Initial Reduction					-1,085	-555	-334	-298	-180	-180	-183		
52					Higher Gas Price Sensitivity					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
53					Federal CO2 Price					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
54					66.7 cent CAD					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
55					5 year reduction / 21 Year Amortization												0	0
56					30% BP Cost					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
57					7% IR					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
60					Double High Gas Price					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
61					Feb 27 Min Scenario					-1,736	-1,736	-1,736	-1,736	0	0	0		
62					Feb 27 7% IR					-1,736	-1,736	-1,736	-1,736	0	0	0		
63					High Demand					-3,922	-3,922	-3,922	-3,922	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)					-3,922	-3,922	-3,922	-3,922	0	0	0		
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity					563	563	563	563					
70					Federal CO2 Price					41	41	41	41					
71					66.7 cent CAD					206	206	206	206					
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost					1204	1204	1204	1204					
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand					261	261	261	261					
77					Double High Gas Price					1151	1151	1151	1151					
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand					-353	-353	-353	-353					
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83					**Electricity Demand**													
84					ENERGY Base Case					154	154	155	156	156	157	158	-	-
85					ENERGY 20% Initial Reduction					154	154	155	156	156	157	158	-	-
86					ENERGY 18% Initial Reduction					154	154	155	156	156	157	158	-	-
87					Higher Gas Price Sensitivity					154	154	155	156	156	157	158	-	-
88					Federal CO2 Price					154	154	155	156	156	157	158	-	-
89					66.7 cent CAD					154	154	155	156	156	157	158	-	-
90					5 year reduction / 21 Year Amortization					154	154	155	156	156	157	158	-	-
91					30% BP Cost					154	154	155	156	156	157	158	-	-
92					7% IR					154	154	155	156	156	157	158	-	-
93					6 Year / 25 Year Amortization					154	154	155	156	156	157	158	-	-
94					Low Demand					139	139	140	140	141	142	142	-	-
95					Double High Gas Price					154	154	155	156	156	157	158	-	-
96					Feb 27 Min Scenario					154	154	155	156	156	157	158	-	-
97					Feb 27 7% IR					154	154	155	156	156	157	158	-	-
98					High Demand					198	199	199	200	201	202	203	-	-
99					Total Electricity Demand					154	154	155	156	156	157	158	0	0
100																		
101					Base Electricity Demand					154	154	155	156	156	157	158	-	-

	A	B	C	D	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3																		
4					Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
102																		
103					ENERGY Base Residential Bill					204	205	206	207	208	209	210	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand					161	162	162	163	164	164	165		
109					OPG High Demand (Outlook D)					205	206	207	208	209	210	210		
110					OPG Low Demand (Outlook A)					146	147	147	148	149	149	150		
111					OPG High Demand Delta					44.1	44.3	44.5	44.7	44.9	45.0	45.2		
112					OPG Low Demand Delta					(14.9)	(15.0)	(15.1)	(15.1)	(15.2)	(15.3)	(15.3)		
113										0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	154	154	155	156	156	157	158	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	154	154	155	156	156	157	158	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		37	38	39	40	41	42	43	44	45
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
6	Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3														
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5														
6	Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
47	*Source: Ministry of Energy*													
48														
49	ENERGY Base Case													
50	ENERGY 20% Initial Reduction													
51	ENERGY 18% Initial Reduction													
52	Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53	Federal CO2 Price					0	0	0	0	0	0	0	0	0
54	66.7 cent CAD					0	0	0	0	0	0	0	0	0
55	5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56	30% BP Cost					0	0	0	0	0	0	0	0	0
57	7% IR					0	0	0	0	0	0	0	0	0
58	6 Year / 25 Year Amortization													
59	Low Demand					0	0	0	0	0	0	0	0	0
60	Double High Gas Price					0	0	0	0	0	0	0	0	0
61	Feb 27 Min Scenario													
62	Feb 27 7% IR													
63	High Demand					0	0	0	0	0	0	0	0	0
64	Annual Ratepayer Borrowing for GA (Repayment)													
65														
66	ENERGY Base Case													
67	ENERGY 20% Initial Reduction													
68	ENERGY 18% Initial Reduction													
69	Higher Gas Price Sensitivity													
70	Federal CO2 Price													
71	66.7 cent CAD													
72	5 year reduction / 21 Year Amortization													
73	30% BP Cost													
74	7% IR													
75	6 Year / 25 Year Amortization													
76	Low Demand													
77	Double High Gas Price													
78	Feb 27 Min Scenario													
79	Feb 27 7% IR													
80	High Demand													
81	Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82														
83	**Electricity Demand**													
84	ENERGY Base Case					-	-	-	-	-	-	-	-	-
85	ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86	ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87	Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88	Federal CO2 Price					-	-	-	-	-	-	-	-	-
89	66.7 cent CAD					-	-	-	-	-	-	-	-	-
90	5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91	30% BP Cost					-	-	-	-	-	-	-	-	-
92	7% IR					-	-	-	-	-	-	-	-	-
93	6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94	Low Demand					-	-	-	-	-	-	-	-	-
95	Double High Gas Price					-	-	-	-	-	-	-	-	-
96	Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97	Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98	High Demand					-	-	-	-	-	-	-	-	-
99	Total Electricity Demand					0	0	0	0	0	0	0	0	0
100														
101	Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
6	Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3														
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5														
6	Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
102														
103	ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104														
105	Low Demand					-	-	-	-	-	-	-	-	-
106														
107														
108	OPG Base Demand													
109	OPG High Demand (Outlook D)													
110	OPG Low Demand (Outlook A)													
111	OPG High Demand Delta													
112	OPG Low Demand Delta													
113														
114														
115	Change in Unit Electricity Cost -Low Demand													
116	Change in Unit Electricity Cost -High Demand													
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120	Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121	Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124	Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125	Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3																		
4					Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**InpS**													
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3														
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5														
6	Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
102														
103	ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104														
105	Low Demand					-	-	-	-	-	-	-	-	-
106														
107														
108	OPG Base Demand													
109	OPG High Demand (Outlook D)													
110	OPG Low Demand (Outlook A)													
111	OPG High Demand Delta													
112	OPG Low Demand Delta													
113														
114														
115	Change in Unit Electricity Cost -Low Demand													
116	Change in Unit Electricity Cost -High Demand													
117														
118														
119	Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120	Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121	Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122														
123	Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124	Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125	Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

InpS

	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
6	Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	-
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	-
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	-
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	-
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107	108
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case					-	-	-	-	-	-	-	-	
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand					-	-	-	-	-	-	-	-	

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107	108
102																		
103					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-	
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-	-	-	-	-	-	-	-	-	
120					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	
121					Additional Cost from Low Demand					-	-	-	-	-	-	-	-	
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-	-	-	-	-	-	-	-	-	
124					Total Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-	
125					Additional Savings from High Demand					-	-	-	-	-	-	-	-	

InpS

	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
4	Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
6	Model column counter	**Constant**	**Unit**		**Total**	109	110	111	112	113	114	115	116	117
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	109	110	111	112	113	114	115	116	117
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	109	110	111	112	113	114	115	116	117
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

InpS

	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
4	Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
6	Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	118	119	120	121	122	123	124	125	126
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	127	128	129	130	131	132	133	134	135
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3																		
4					Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	127	128	129	130	131	132	133	134	135
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	136	137	138	139	140	141	142	143	144
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	136	137	138	139	140	141	142	143	144
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	145	146	147	148	149	150	151	152	153
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	145	146	147	148	149	150	151	152	153
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

InpS

	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
4	Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
6	Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3																		
4					Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	154	155	156	157	158	159	160	161	162
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

InpS

	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
2	**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
4	Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
6	Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
12	***Debt Borrowing/Payment Schedule***													
13	***($ million)***													
14	IESO GA cost forecast + extrapolation													
15	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16	Ratepayer GA Payment													
17	Amount borrowed (negative) or paid back (positive) in present year													
18	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19	Total change of debt account in present year													
20	Accumulated debt in present year													
21	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22	Ratepayer GA Payment													
23	Amount borrowed (negative) or paid back (positive) in present year													
24	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25	Total change of debt account in present year													
26	Accumulated debt in present year													
27	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28	Ratepayer GA Payment													
29	Amount borrowed (negative) or paid back (positive) in present year													
30	Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31	Total change of debt account in present year													
32	Accumulated debt in present year													
35	***Debt Borrowing/Payment Schedule***													
36	***($ million)***													
37	IESO GA cost forecast + extrapolation													
38	***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39	Ratepayer GA Payment													
40	Accumulated debt in present year (including 5% interest, compounded monthly)													
41	***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42	Ratepayer GA Payment													
43	Accumulated debt in present year (including 5% interest, compounded monthly)													
44	***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45	Ratepayer GA Payment													
46	Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3																		
4					Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	163	164	165	166	167	168	169	170	171
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3																		
4					Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	163	164	165	166	167	168	169	170	171
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	172	173	174	175	176	177	178	179	180
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3																		
4					Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	181	182	183	184	185	186	187	188	189
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		190	191	192	193	194	195	196	197	198
11																		
12					***Debt Borrowing/Payment Schedule***													
13					***($ million)***													
14					IESO GA cost forecast + extrapolation													
15					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
16					Ratepayer GA Payment													
17					Amount borrowed (negative) or paid back (positive) in present year													
18					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
19					Total change of debt account in present year													
20					Accumulated debt in present year													
21					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
22					Ratepayer GA Payment													
23					Amount borrowed (negative) or paid back (positive) in present year													
24					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
25					Total change of debt account in present year													
26					Accumulated debt in present year													
27					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
28					Ratepayer GA Payment													
29					Amount borrowed (negative) or paid back (positive) in present year													
30					Amount of interest on accumulated debt from previous year (5% interest compounded monthly)													
31					Total change of debt account in present year													
32					Accumulated debt in present year													
33																		
34																		
35					***Debt Borrowing/Payment Schedule***													
36					***($ million)***													
37					IESO GA cost forecast + extrapolation													
38					***Option 1 - Bills Lowered 25%, RPP-Eligible Only***													
39					Ratepayer GA Payment													
40					Accumulated debt in present year (including 5% interest, compounded monthly)													
41					***Option 2 - Bills Lowered 20%, RPP-Eligible Only***													
42					Ratepayer GA Payment													
43					Accumulated debt in present year (including 5% interest, compounded monthly)													
44					***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***													
45					Ratepayer GA Payment													
46					Accumulated debt in present year (including 5% interest, compounded monthly)													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	190	191	192	193	194	195	196	197	198
47					*Source: Ministry of Energy*													
48																		
49					ENERGY Base Case													
50					ENERGY 20% Initial Reduction													
51					ENERGY 18% Initial Reduction													
52					Higher Gas Price Sensitivity					0	0	0	0	0	0	0	0	0
53					Federal CO2 Price					0	0	0	0	0	0	0	0	0
54					66.7 cent CAD					0	0	0	0	0	0	0	0	0
55					5 year reduction / 21 Year Amortization					0	0	0	0	0	0	0	0	0
56					30% BP Cost					0	0	0	0	0	0	0	0	0
57					7% IR					0	0	0	0	0	0	0	0	0
58					6 Year / 25 Year Amortization													
59					Low Demand					0	0	0	0	0	0	0	0	0
60					Double High Gas Price					0	0	0	0	0	0	0	0	0
61					Feb 27 Min Scenario													
62					Feb 27 7% IR													
63					High Demand					0	0	0	0	0	0	0	0	0
64					Annual Ratepayer Borrowing for GA (Repayment)													
65																		
66					ENERGY Base Case													
67					ENERGY 20% Initial Reduction													
68					ENERGY 18% Initial Reduction													
69					Higher Gas Price Sensitivity													
70					Federal CO2 Price													
71					66.7 cent CAD													
72					5 year reduction / 21 Year Amortization													
73					30% BP Cost													
74					7% IR													
75					6 Year / 25 Year Amortization													
76					Low Demand													
77					Double High Gas Price													
78					Feb 27 Min Scenario													
79					Feb 27 7% IR													
80					High Demand													
81					Change in Total System Cost due to Sensitivity					0	0	0	0	0	0	0	0	0
82																		
83	**Electricity Demand**																	
84					ENERGY Base Case													
85					ENERGY 20% Initial Reduction					-	-	-	-	-	-	-	-	-
86					ENERGY 18% Initial Reduction					-	-	-	-	-	-	-	-	-
87					Higher Gas Price Sensitivity					-	-	-	-	-	-	-	-	-
88					Federal CO2 Price					-	-	-	-	-	-	-	-	-
89					66.7 cent CAD					-	-	-	-	-	-	-	-	-
90					5 year reduction / 21 Year Amortization					-	-	-	-	-	-	-	-	-
91					30% BP Cost					-	-	-	-	-	-	-	-	-
92					7% IR					-	-	-	-	-	-	-	-	-
93					6 Year / 25 Year Amortization					-	-	-	-	-	-	-	-	-
94					Low Demand					-	-	-	-	-	-	-	-	-
95					Double High Gas Price					-	-	-	-	-	-	-	-	-
96					Feb 27 Min Scenario					-	-	-	-	-	-	-	-	-
97					Feb 27 7% IR					-	-	-	-	-	-	-	-	-
98					High Demand					-	-	-	-	-	-	-	-	-
99					Total Electricity Demand					0	0	0	0	0	0	0	0	0
100																		
101					Base Electricity Demand													

	A	B	C	D	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**InpS**																	
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3																		
4					Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	190	191	192	193	194	195	196	197	198
102																		
103					ENERGY Base Residential Bill													
104																		
105					Low Demand					-	-	-	-	-	-	-	-	-
106																		
107																		
108					OPG Base Demand													
109					OPG High Demand (Outlook D)													
110					OPG Low Demand (Outlook A)													
111					OPG High Demand Delta													
112					OPG Low Demand Delta													
113																		
114																		
115					Change in Unit Electricity Cost -Low Demand													
116					Change in Unit Electricity Cost -High Demand													
117																		
118																		
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-									
120					Total Electricity Demand	-	-	-	-									
121					Additional Cost from Low Demand													
122																		
123					Change in Unit Electricity Cost -High Demand	-	-	-	-									
124					Total Electricity Demand	-	-	-	-									
125					Additional Savings from High Demand													

	A B C D	E	F	G	H	I	GZ	HA
1	**InpS**							
2		**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
3								
4		Financial year ending					2215	2216
5								
6		Model column counter	**Constant**	**Unit**	**Total**		199	200
11								
12		***Debt Borrowing/Payment Schedule***						
13		***($ million)***						
14		IESO GA cost forecast + extrapolation						
15		***Option 1 - Bills Lowered 25%, RPP-Eligible Only***						
16		Ratepayer GA Payment						
17		Amount borrowed (negative) or paid back (positive) in present year						
18		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
19		Total change of debt account in present year						
20		Accumulated debt in present year						
21		***Option 2 - Bills Lowered 20%, RPP-Eligible Only***						
22		Ratepayer GA Payment						
23		Amount borrowed (negative) or paid back (positive) in present year						
24		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
25		Total change of debt account in present year						
26		Accumulated debt in present year						
27		***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***						
28		Ratepayer GA Payment						
29		Amount borrowed (negative) or paid back (positive) in present year						
30		Amount of interest on accumulated debt from previous year (5% interest compounded monthly)						
31		Total change of debt account in present year						
32		Accumulated debt in present year						
33								
34								
35		***Debt Borrowing/Payment Schedule***						
36		***($ million)***						
37		IESO GA cost forecast + extrapolation						
38		***Option 1 - Bills Lowered 25%, RPP-Eligible Only***						
39		Ratepayer GA Payment						
40		Accumulated debt in present year (including 5% interest, compounded monthly)						
41		***Option 2 - Bills Lowered 20%, RPP-Eligible Only***						
42		Ratepayer GA Payment						
43		Accumulated debt in present year (including 5% interest, compounded monthly)						
44		***Option 3 - Bills Lowered 18%, contract/conservation refinancing, RPP-Eligible Only***						
45		Ratepayer GA Payment						
46		Accumulated debt in present year (including 5% interest, compounded monthly)						

	A	B	C	D	E	F	G	H	I	GZ	HA
1	**InpS**										
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
3											
4					Financial year ending					2215	2216
5											
6					Model column counter	**Constant**	**Unit**		**Total**	199	200
47					*Source: Ministry of Energy*						
48											
49					ENERGY Base Case						
50					ENERGY 20% Initial Reduction						
51					ENERGY 18% Initial Reduction						
52					Higher Gas Price Sensitivity					0	0
53					Federal CO2 Price					0	0
54					66.7 cent CAD					0	0
55					5 year reduction / 21 Year Amortization					0	0
56					30% BP Cost					0	0
57					7% IR					0	0
58					6 Year / 25 Year Amortization						
59					Low Demand					0	0
60					Double High Gas Price					0	0
61					Feb 27 Min Scenario						
62					Feb 27 7% IR						
63					High Demand					0	0
64					Annual Ratepayer Borrowing for GA (Repayment)						
65											
66					ENERGY Base Case						
67					ENERGY 20% Initial Reduction						
68					ENERGY 18% Initial Reduction						
69					Higher Gas Price Sensitivity						
70					Federal CO2 Price						
71					66.7 cent CAD						
72					5 year reduction / 21 Year Amortization						
73					30% BP Cost						
74					7% IR						
75					6 Year / 25 Year Amortization						
76					Low Demand						
77					Double High Gas Price						
78					Feb 27 Min Scenario						
79					Feb 27 7% IR						
80					High Demand						
81					Change in Total System Cost due to Sensitivity					0	0
82											
83	**Electricity Demand**										
84					ENERGY Base Case						
85					ENERGY 20% Initial Reduction					-	-
86					ENERGY 18% Initial Reduction					-	-
87					Higher Gas Price Sensitivity					-	-
88					Federal CO2 Price					-	-
89					66.7 cent CAD					-	-
90					5 year reduction / 21 Year Amortization					-	-
91					30% BP Cost					-	-
92					7% IR					-	-
93					6 Year / 25 Year Amortization					-	-
94					Low Demand					-	-
95					Double High Gas Price					-	-
96					Feb 27 Min Scenario					-	-
97					Feb 27 7% IR					-	-
98					High Demand					-	-
99					Total Electricity Demand					0	0
100											
101					Base Electricity Demand						

	A	B	C	D	E	F	G	H	I	GZ	HA
1	**InpS**										
2					**Model period ending**	#REF!	B.S. Check			**31 Dec 2215**	**31 Dec 2216**
3											
4					Financial year ending					2215	2216
5											
6					Model column counter	**Constant**	**Unit**	**Total**		199	200
102											
103					ENERGY Base Residential Bill						
104											
105					Low Demand					-	-
106											
107											
108					OPG Base Demand						
109					OPG High Demand (Outlook D)						
110					OPG Low Demand (Outlook A)						
111					OPG High Demand Delta						
112					OPG Low Demand Delta						
113											
114											
115					Change in Unit Electricity Cost -Low Demand						
116					Change in Unit Electricity Cost -High Demand						
117											
118											
119					Change in Unit Electricity Cost -Low Demand	-	-	-	-		
120					Total Electricity Demand	-	-	-	-		
121					Additional Cost from Low Demand						
122											
123					Change in Unit Electricity Cost -High Demand	-	-	-	-		
124					Total Electricity Demand	-	-	-	-		
125					Additional Savings from High Demand						

Debt

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
6	Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
17	Cumulative Principal					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					-	128	391	795	1,377	2,125	3,027	4,061	5,268
22	Total Debt					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
24	Compounded Interest Rate	5.12%												
25	Interest					128	263	404	582	748	902	1,034	1,207	1,349
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					128	391	795	1,377	2,125	3,027	4,061	5,268	6,617
29	Annual Principal Addition (Repayment)					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394	2,763
34	Borrowing for Rate Reductions					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360	1,555
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					-	128	263	404	582	748	902	1,034	1,207
37	Principle Repayment					-	-	-	-	-	-	-	-	-
39	Principle Balance					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					-	128	391	795	1,377	2,125	3,027	4,061	5,268
42	Total Debt Balance					2,501	5,136	7,900	11,379	14,621	17,629	20,205	23,599	26,362
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
58	Accumulated Interest Balance	-		-	- -	-	-	-	-	-	-	-	-	-
59	Total Debt Balance					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539	21,094
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					-	-	-	-	-	-	-	-	-
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance						-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8	9
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					-	-	-	-	-	-	-	-	-
Total Principal Repayment	-		-	-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	-	-	-	-	-	-	-	-	-	-
Total Debt Service					-	-	-	-	-	-	-	-	-
Interest Rate Sensitivity Scenario?	-		toggle										
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	-	-	-	-	-	-	-	-
RPP Cost IR Sensitivity					-	-	-	-	-	-	-	-	-

OPG Sensitivity

Public Debt Scenario?	0												
Change in Total System Cost due to Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Inflation	2.00%	%											
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
31 Dec 2017	-				-	-	-	-	-	-	-	-	-
31 Dec 2018	-				-	-	-	-	-	-	-	-	-
31 Dec 2019	-				-	-	-	-	-	-	-	-	-
31 Dec 2020	-				-	-	-	-	-	-	-	-	-
31 Dec 2021	-				-	-	-	-	-	-	-	-	-
31 Dec 2022	-				-	-	-	-	-	-	-	-	-
31 Dec 2023	-				-	-	-	-	-	-	-	-	-
31 Dec 2024	-				-	-	-	-	-	-	-	-	-
31 Dec 2025	-				-	-	-	-	-	-	-	-	-
31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter		**Constant**	**Unit**	**Total**	1	2	3	4	5	6	7	8	9
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					-	-	-	-	-	-	-	-	-
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	- -	-	-	-	-	-	-	-	-	-
Total Debt Service					-	-	-	-	-	-	-	-	-

Debt

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	853	1,649	1,207	173	(343)	(1,644)	(1,718)	(2,544)	(3,277)
17	Cumulative Principal					21,947	23,596	24,803	24,977	24,634	22,990	21,273	18,728	15,452
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					6,617	8,078	9,699	11,464	13,328	15,271	17,228	19,198	21,138
22	Total Debt					28,564	31,675	34,502	36,441	37,962	38,261	38,501	37,926	36,590
24	Compounded Interest Rate	5.12%												
25	Interest					1,461	1,621	1,765	1,864	1,942	1,957	1,970	1,940	1,872
26						-	-	-	-	1,600	314	252	-	-
27	Cumulative Interest					8,078	9,699	11,464	13,328	15,271	17,228	19,198	21,138	23,010
29	Annual Principal Addition (Repayment)					2,202	3,111	2,828	1,938	1,522	299	240	(575)	(1,336)
34	Borrowing for Rate Reductions					853	1,649	1,207	173	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	343	1,644	1,718	1,970	1,940
36	Borrowing to Fund Interest					1,349	1,461	1,621	1,765	1,522	299	240	-	-
37	Principle Repayment					-	-	-	-	-	-	-	575	1,336
39	Principle Balance					21,947	23,596	24,803	24,977	24,977	24,977	24,977	24,402	23,066
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					6,617	8,078	9,699	11,464	12,986	13,284	13,524	13,524	13,524
42	Total Debt Balance					28,564	31,675	34,502	36,441	37,962	38,261	38,501	37,926	36,590
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	21,947	23,596	24,803	24,977	24,977	24,977	24,977	24,402	23,066
58	Accumulated Interest Balance	-		-	- -	-	-	-	-	-	5,571	5,243	4,915	4,588
59	Total Debt Balance					21,947	23,596	24,803	24,977	24,977	19,384	18,276	17,127	15,936
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					-	-	-	-	-	1,401	1,321	1,238	1,152
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					-	-	-	-	-	5,571	5,243	4,915	4,588

Debt

Model period ending					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
Model column counter	**Constant**	**Unit**		**Total**	10	11	12	13	14	15	16	17	18
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	328	328	328	328	328
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					-	-	-	-	-	1,401	1,321	1,238	1,152
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	575	1,336
Accumulated Interest Repayment	-		-	- -	-	-	-	-	328	328	328	328	328
Interest Paid	-		-	- -	-	-	-	-	-	1,401	1,321	1,238	1,152
Total Debt Service					-	-	-	-	2,513	2,472	2,430	2,387	2,343
Interest Rate Sensitivity Scenario?	-		toggle										
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	-	-	-	-	(2,513)	(2,472)	(2,430)	(2,387)	(2,343)
RPP Cost IR Sensitivity					-	-	-	-	(2,513)	(2,472)	(2,430)	(2,387)	(2,343)

OPG Sensitivity

Public Debt Scenario?	0												
Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Inflation	2.00%	%											
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
31 Dec 2017	-				-	-	-	-	-	-	-	-	-
31 Dec 2018	-				-	-	-	-	-	-	-	-	-
31 Dec 2019	-				-	-	-	-	-	-	-	-	-
31 Dec 2020	-				-	-	-	-	-	-	-	-	-
31 Dec 2021	-				-	-	-	-	-	-	-	-	-
31 Dec 2022	-				-	-	-	-	-	-	-	-	-
31 Dec 2023	-				-	-	-	-	-	-	-	-	-
31 Dec 2024	-				-	-	-	-	-	-	-	-	-
31 Dec 2025	-				-	-	-	-	-	-	-	-	-
31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
Model column counter		**Constant**	**Unit**	**Total**	10	11	12	13	14	15	16	17	18
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					-	-	-	-	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	(0)	(0)	(0)	(0)	(0)
Interest Paid		-	-	- -	-	-	-	-	(0)	(0)	(0)	(0)	(0)
Total Debt Service					-	-	-	-	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
2	**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
6	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
17	Cumulative Principal					11,529	7,607	3,685	(238)	(4,160)	(8,082)	(12,005)	(15,927)	(19,849)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					23,010	24,777	26,434	27,975	29,394	30,685	31,842	32,857	33,723
22	Total Debt					34,540	32,384	30,119	27,737	25,234	22,603	19,837	16,929	13,873
24	Compounded Interest Rate	5.12%												
25	Interest					1,767	1,657	1,541	1,419	1,291	1,156	1,015	866	710
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					24,777	26,434	27,975	29,394	30,685	31,842	32,857	33,723	34,433
29	Annual Principal Addition (Repayment)					(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)	(2,766)	(2,907)	(3,056)
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					1,872	1,767	1,657	1,541	1,419	1,291	1,156	1,015	866
36	Borrowing to Fund Interest					-	-	-	-	-	-	-	-	-
37	Principle Repayment					2,050	2,155	2,265	2,381	2,503	2,631	2,766	2,907	3,056
39	Principle Balance					21,015	18,860	16,595	14,213	11,710	9,079	6,313	3,405	349
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
42	Total Debt Balance					34,540	32,384	30,119	27,737	25,234	22,603	19,837	16,929	13,873
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	21,015	18,860	16,595	14,213	11,710	9,079	6,313	3,405	349
58	Accumulated Interest Balance	-		-	- -	4,260	3,932	3,605	3,277	2,949	2,622	2,294	1,966	1,638
59	Total Debt Balance					14,701	13,420	12,090	10,708	9,273	7,781	6,230	4,616	2,936
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					1,063	970	874	774	670	563	450	334	212
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					4,260	3,932	3,605	3,277	2,949	2,622	2,294	1,966	1,638

Debt

	Model period ending					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
	Model column counter	**Constant**	**Unit**		**Total**	19	20	21	22	23	24	25	26	27
	Accumulated Interest Base Case	6,178													
	Accumulated Interest	7,537													
	Change in Accumulated Interest	1,359													
	Year to Finish Paying Back	2047	Year												
	Year to Start Paying Back	2030	Year												
	Accumulated Interest Repayment					328	328	328	328	328	328	328	328	328	
	Year to Start Paying Back	2030	Year												
	Accumulate Interst?	1		toggle											
	Interest Paid					1,063	970	874	774	670	563	450	334	212	
	Total Principal Repayment	-		-	- -	2,050	2,155	2,265	2,381	2,503	2,631	2,766	2,907	3,056	
	Accumulated Interest Repayment	-		-	- -	328	328	328	328	328	328	328	328	328	
	Interest Paid	-		-	- -	1,063	970	874	774	670	563	450	334	212	
	Total Debt Service					2,298	2,251	2,204	2,155	2,106	2,054	2,002	1,948	1,892	
	Interest Rate Sensitivity Scenario?	-	toggle												
	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-	
	Total Debt Service	-		-	- -	(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)	(2,002)	(1,948)	(1,892)	
	RPP Cost IR Sensitivity					(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)	(2,002)	(1,948)	(1,892)	
	OPG Sensitivity														
	Public Debt Scenario?	0													
	Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-	
	RPP Share of Consumption	50.00%	%												
	Inflation	2.00%	%												
	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-	
	Year to Finish Paying Back	2047	Year												
	Year to Start Paying Back	2030	Year												
	31 Dec 2017	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2018	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2019	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2020	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2021	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2022	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2023	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2024	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2025	-				-	-	-	-	-	-	-	-	-	
	31 Dec 2026	-				-	-	-	-	-	-	-	-	-	

Debt

Model period ending					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
Model column counter		**Constant**	**Unit**	**Total**	19	20	21	22	23	24	25	26	27
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-		- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-		- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Paid		-		- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter	**Constant**	**Unit**		**Total**	28	29	30	31	32	33	34	35	36
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(3,922)	(3,922)	(3,922)	(3,922)	-	-	-	-	-
17	Cumulative Principal					(23,772)	(27,694)	(31,616)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					34,433	34,978	35,351	35,542	35,542	35,542	35,542	35,542	35,542
22	Total Debt					10,661	7,284	3,734	3	3	3	3	3	4
24	Compounded Interest Rate	5.12%												
25	Interest					545	373	191	0	0	0	0	0	0
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					34,978	35,351	35,542	35,542	35,542	35,542	35,542	35,542	35,543
29	Annual Principal Addition (Repayment)					(3,213)	(3,377)	(3,550)	(3,731)	0	0	0	0	0
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					710	545	373	191	-	-	-	-	-
36	Borrowing to Fund Interest					-	-	-	-	0	0	0	0	0
37	Principle Repayment					3,213	3,377	3,550	3,731	-	-	-	-	-
39	Principle Balance					-	-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					2,864	3,377	3,550	3,731	-	-	-	-	-
41	Accumulated Interest Balance					10,661	7,284	3,734	3	3	3	3	3	4
42	Total Debt Balance					10,661	7,284	3,734	3	3	3	3	3	4
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	1,311	983	655	328	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					1,311	983	655	328	(0)	(0)	(0)	(0)	(0)
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					95	71	47	24	(0)	(0)	(0)	(0)	(0)
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					1,311	983	655	328	(0)	(0)	(0)	(0)	(0)

	A B C D E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1	**Debt**													
2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
3														
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
5														
6	Model column counter	**Constant**	**Unit**	**Total**		28	29	30	31	32	33	34	35	36
68														
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment					328	328	328	328	-	-	-	-	-
75														
76														
77														
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1	toggle											
80	Interest Paid					95	71	47	24	(0)	(0)	(0)	(0)	(0)
81														
82	Total Principal Repayment	-	-	-	-	349	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-	-	-	-	328	328	328	328	-	-	-	-	-
84	Interest Paid	-	-	-	-	95	71	47	24	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service					1,720	399	375	351	(0)	(0)	(0)	(0)	(0)
86														
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
89	Total Debt Service	-	-	-	-	(1,720)	(399)	(375)	(351)	0	0	0	0	0
90	RPP Cost IR Sensitivity					(1,720)	(399)	(375)	(351)	0	0	0	0	0
91														
92														
93														
94														
95														
96														
97														
98														
99														
100														
101														
102														
103														
104														
105														
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
112														
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
116	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
117	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
118	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
119	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
120	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
121	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
122	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
123	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
124	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter		**Constant**	**Unit**	**Total**	28	29	30	31	32	33	34	35	36
125		31 Dec 2027	-			-	-	-	-	-	-	-	-	-
126		31 Dec 2028	-			-	-	-	-	-	-	-	-	-
127		31 Dec 2029	-			-	-	-	-	-	-	-	-	-
128		31 Dec 2030	-			-	-	-	-	-	-	-	-	-
129		31 Dec 2031	-			-	-	-	-	-	-	-	-	-
130		31 Dec 2032	-			-	-	-	-	-	-	-	-	-
131		31 Dec 2033	-			-	-	-	-	-	-	-	-	-
132		31 Dec 2034	-			-	-	-	-	-	-	-	-	-
133		31 Dec 2035	-			-	-	-	-	-	-	-	-	-
134		31 Dec 2036	-			-	-	-	-	-	-	-	-	-
135		31 Dec 2037	-			-	-	-	-	-	-	-	-	-
136		31 Dec 2038	-			-	-	-	-	-	-	-	-	-
137		31 Dec 2039	-			-	-	-	-	-	-	-	-	-
138		31 Dec 2040	-			-	-	-	-	-	-	-	-	-
139		31 Dec 2041	-			-	-	-	-	-	-	-	-	-
140		31 Dec 2042	-			-	-	-	-	-	-	-	-	-
141		31 Dec 2043	-			-	-	-	-	-	-	-	-	-
142		31 Dec 2044	-			-	-	-	-	-	-	-	-	-
143		31 Dec 2045	-			-	-	-	-	-	-	-	-	-
144		31 Dec 2046	-			-	-	-	-	-	-	-	-	-
145		31 Dec 2047	-			-	-	-	-	-	-	-	-	-
146	Total Principal Repayment					-	-	-	-	-	-	-	-	-
147	Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
148														
149	Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
150	Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
151														
152	Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
153	Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154	Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155														
156	All-in debt interest rate		5.00%	%										
157	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158														
159	Year to Start Paying Back		2030	Year										
160	Accumulate Interst?		1		toggle									
161	Accumulated Interest					0	0	0	0	0	0	0	0	0
162														
163														
164	Accumulated Interest		(0)											
165	Year to Finish Paying Back		2047	Year										
166	Year to Start Paying Back		2030	Year										
167	Accumulated Interest Repayment					(0)	(0)	(0)	(0)	-	-	-	-	-
168														
169														
170														
171	Year to Start Paying Back		2030	Year										
172	Accumulate Interst?		1		toggle									
173	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174														
175	Public Debt Scenario?		0											
176	Ratepayer Savings					-	-	-	-	-	-	-	-	-
177	Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
178	Accumulated Interest Repayment		-	-	- -	(0)	(0)	(0)	(0)	-	-	-	-	-
179	Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**Debt**																	
2					**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3																		
4					Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	37	38	39	40	41	42	43	44	45
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,543	35,543	35,543	35,543	35,543	35,544	35,544	35,544	35,544
21																		
22					Total Debt					4	4	4	4	5	5	5	5	6
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					0	0	0	0	0	0	0	0	0
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,543	35,543	35,543	35,543	35,544	35,544	35,544	35,544	35,545
28																		
29					Annual Principal Addition (Repayment)					0	0	0	0	0	0	0	0	0
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					0	0	0	0	0	0	0	0	0
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					4	4	4	4	5	5	5	5	6
42					Total Debt Balance					4	4	4	4	5	5	5	5	6
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
Financial year ending						2053	2054	2055	2056	2057	2058	2059	2060	2061
Model column counter	**Constant**	**Unit**		**Total**		37	38	39	40	41	42	43	44	45
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
Model column counter		**Constant**	**Unit**	**Total**	37	38	39	40	41	42	43	44	45
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**Debt**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,545	35,545	35,545	35,546	35,546	35,546	35,547	35,547	35,548
21																		
22					Total Debt					6	6	7	7	7	8	8	8	9
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					0	0	0	0	0	0	0	0	0
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,545	35,545	35,546	35,546	35,546	35,547	35,547	35,548	35,548
28																		
29					Annual Principal Addition (Repayment)					0	0	0	0	0	0	0	0	0
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					0	0	0	0	0	0	0	0	0
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					6	6	7	7	7	8	8	8	9
42					Total Debt Balance					6	6	7	7	7	8	8	8	9
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
Financial year ending						2062	2063	2064	2065	2066	2067	2068	2069	2070
Model column counter	**Constant**	**Unit**		**Total**		46	47	48	49	50	51	52	53	54
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**Debt**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	46	47	48	49	50	51	52	53	54
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2	**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
6	Model column counter	**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17	Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					35,548	35,549	35,549	35,550	35,550	35,551	35,551	35,552	35,553
22	Total Debt					9	10	10	11	11	12	13	13	14
24	Compounded Interest Rate	5.12%												
25	Interest					0	1	1	1	1	1	1	1	1
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					35,549	35,549	35,550	35,550	35,551	35,551	35,552	35,553	35,553
29	Annual Principal Addition (Repayment)					0	0	1	1	1	1	1	1	1
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					0	0	1	1	1	1	1	1	1
37	Principle Repayment					-	-	-	-	-	-	-	-	-
39	Principle Balance					-	-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					9	10	10	11	11	12	13	13	14
42	Total Debt Balance					9	10	10	11	11	12	13	13	14
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

		F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
Model period ending						**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
Financial year ending						2071	2072	2073	2074	2075	2076	2077	2078	2079
Model column counter		**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
Accumulated Interest Base Case		6,178												
Accumulated Interest		7,537												
Change in Accumulated Interest		1,359												
Year to Finish Paying Back		2047	Year											
Year to Start Paying Back		2030	Year											
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year											
Accumulate Interst?		1		toggle										
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment		-		-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-		-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?		-		toggle										
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service		-		-	- -	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0
OPG Sensitivity														
Public Debt Scenario?		0												
Change in Total System Cost due to Sensitivity		-		-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption		50.00%	%											
Inflation		2.00%	%											
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back		2047	Year											
Year to Start Paying Back		2030	Year											
	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**Debt**																	
2					**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	55	56	57	58	59	60	61	62	63
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Debt**													
2	**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3														
4	Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5														
6	Model column counter	**Constant**	**Unit**		**Total**	64	65	66	67	68	69	70	71	72
11														
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
15														
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17	Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18														
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					35,553	35,554	35,555	35,556	35,557	35,558	35,559	35,560	35,561
21														
22	Total Debt					15	15	16	17	18	19	20	21	22
23														
24	Compounded Interest Rate	5.12%												
25	Interest					1	1	1	1	1	1	1	1	1
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					35,554	35,555	35,556	35,557	35,558	35,559	35,560	35,561	35,562
28														
29	Annual Principal Addition (Repayment)					1	1	1	1	1	1	1	1	1
30														
31														
32														
33														
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					1	1	1	1	1	1	1	1	1
37	Principle Repayment					-	-	-	-	-	-	-	-	-
38														
39	Principle Balance					-	-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					15	15	16	17	18	19	20	21	22
42	Total Debt Balance					15	15	16	17	18	19	20	21	22
43														
44														
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
51														
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60														
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64														
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
Financial year ending						2080	2081	2082	2083	2084	2085	2086	2087	2088
Model column counter	**Constant**	**Unit**		**Total**		64	65	66	67	68	69	70	71	72
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-		-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-		-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-		-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-		-	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-		-		-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

Debt

Model period ending					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
Model column counter		**Constant**	**Unit**	**Total**	64	65	66	67	68	69	70	71	72
	31 Dec 2027	-			-	-	-	-	-	-	-	-	-
	31 Dec 2028	-			-	-	-	-	-	-	-	-	-
	31 Dec 2029	-			-	-	-	-	-	-	-	-	-
	31 Dec 2030	-			-	-	-	-	-	-	-	-	-
	31 Dec 2031	-			-	-	-	-	-	-	-	-	-
	31 Dec 2032	-			-	-	-	-	-	-	-	-	-
	31 Dec 2033	-			-	-	-	-	-	-	-	-	-
	31 Dec 2034	-			-	-	-	-	-	-	-	-	-
	31 Dec 2035	-			-	-	-	-	-	-	-	-	-
	31 Dec 2036	-			-	-	-	-	-	-	-	-	-
	31 Dec 2037	-			-	-	-	-	-	-	-	-	-
	31 Dec 2038	-			-	-	-	-	-	-	-	-	-
	31 Dec 2039	-			-	-	-	-	-	-	-	-	-
	31 Dec 2040	-			-	-	-	-	-	-	-	-	-
	31 Dec 2041	-			-	-	-	-	-	-	-	-	-
	31 Dec 2042	-			-	-	-	-	-	-	-	-	-
	31 Dec 2043	-			-	-	-	-	-	-	-	-	-
	31 Dec 2044	-			-	-	-	-	-	-	-	-	-
	31 Dec 2045	-			-	-	-	-	-	-	-	-	-
	31 Dec 2046	-			-	-	-	-	-	-	-	-	-
	31 Dec 2047	-			-	-	-	-	-	-	-	-	-
Total Principal Repayment					-	-	-	-	-	-	-	-	-
Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
All-in debt interest rate		5.00%	%										
Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Accumulated Interest					0	0	0	0	0	0	0	0	0
Accumulated Interest		(0)											
Year to Finish Paying Back		2047	Year										
Year to Start Paying Back		2030	Year										
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back		2030	Year										
Accumulate Interst?		1		toggle									
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Public Debt Scenario?		0											
Ratepayer Savings					-	-	-	-	-	-	-	-	-
Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**Debt**																	
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
11																		
12	**ENERGY Base Case**																	
13					All-in debt interest rate	5.00%	%											
14					Compounded Interest Rate	5.12%												
15																		
16					Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17					Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
18																		
19					Accumulate Interst?	1	toggle											
20					Accumulated Interest					35,562	35,563	35,564	35,565	35,567	35,568	35,570	35,571	35,573
21																		
22					Total Debt					23	24	25	27	28	29	31	33	34
23																		
24					Compounded Interest Rate	5.12%												
25					Interest					1	1	1	1	1	2	2	2	2
26										-	-	-	-	-	-	-	-	-
27					Cumulative Interest					35,563	35,564	35,565	35,567	35,568	35,570	35,571	35,573	35,575
28																		
29					Annual Principal Addition (Repayment)					1	1	1	1	1	1	2	2	2
30																		
31																		
32																		
33																		
34					Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35					Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36					Borrowing to Fund Interest					1	1	1	1	1	1	2	2	2
37					Principle Repayment					-	-	-	-	-	-	-	-	-
38																		
39					Principle Balance					-	-	-	-	-	-	-	-	-
40					Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41					Accumulated Interest Balance					23	24	25	27	28	29	31	33	34
42					Total Debt Balance					23	24	25	27	28	29	31	33	34
43																		
44																		
45					Interest Rate Sensitivity Scenario?	-	toggle											
46						(3,922)												
47						13												
48						2,028												
49						34,502												
50										-	-	-	-	-	-	-	-	-
51																		
52	**IR Sensitivity**																	
53					Interest Rate Sensitivity Scenario?	-	toggle											
54					Year to Finish Paying Back	2047	Year											
55					Year to Start Paying Back	2030	Year											
56					Principal to be Repaid	24,977												
57					Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58					Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59					Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
60																		
61					Interest Rate Sensitivity	-	%											
62					Compounded Interest Rate	0.00%												
63					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
64																		
65					Year to Start Paying Back	2030	Year											
66					Accumulate Interst?	1		toggle										
67					Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending						**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
Financial year ending						2089	2090	2091	2092	2093	2094	2095	2096	2097
Model column counter	**Constant**	**Unit**		**Total**		73	74	75	76	77	78	79	80	81
Accumulated Interest Base Case	6,178													
Accumulated Interest	7,537													
Change in Accumulated Interest	1,359													
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year												
Accumulate Interst?	1		toggle											
Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	-	-	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-		toggle											
Annual Ratepayer Borrowing for GA						-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity						0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0													
Change in Total System Cost due to Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%												
Inflation	2.00%	%												
Change in Borrowing due to Sensitivity						-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year												
Year to Start Paying Back	2030	Year												
31 Dec 2017	-					-	-	-	-	-	-	-	-	-
31 Dec 2018	-					-	-	-	-	-	-	-	-	-
31 Dec 2019	-					-	-	-	-	-	-	-	-	-
31 Dec 2020	-					-	-	-	-	-	-	-	-	-
31 Dec 2021	-					-	-	-	-	-	-	-	-	-
31 Dec 2022	-					-	-	-	-	-	-	-	-	-
31 Dec 2023	-					-	-	-	-	-	-	-	-	-
31 Dec 2024	-					-	-	-	-	-	-	-	-	-
31 Dec 2025	-					-	-	-	-	-	-	-	-	-
31 Dec 2026	-					-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**Debt**																	
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3																		
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80	81
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17	Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					35,575	35,577	35,579	35,581	35,583	35,585	35,587	35,590	35,592
22	Total Debt					36	38	40	42	44	46	48	51	54
24	Compounded Interest Rate	5.12%												
25	Interest					2	2	2	2	2	2	2	3	3
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					35,577	35,579	35,581	35,583	35,585	35,587	35,590	35,592	35,595
29	Annual Principal Addition (Repayment)					2	2	2	2	2	2	2	2	3
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					2	2	2	2	2	2	2	2	3
37	Principle Repayment					-	-	-	-	-	-	-	-	-
39	Principle Balance					-	-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					36	38	40	42	44	46	48	51	54
42	Total Debt Balance					36	38	40	42	44	46	48	51	54
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

Model period ending					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
Model column counter	**Constant**	**Unit**		**Total**	82	83	84	85	86	87	88	89	90
Accumulated Interest Base Case	6,178												
Accumulated Interest	7,537												
Change in Accumulated Interest	1,359												
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
Year to Start Paying Back	2030	Year											
Accumulate Interst?	1		toggle										
Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Interest Rate Sensitivity Scenario?	-	toggle											
Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0

OPG Sensitivity

Public Debt Scenario?	0												
Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Inflation	2.00%	%											
Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
Year to Finish Paying Back	2047	Year											
Year to Start Paying Back	2030	Year											
31 Dec 2017	-				-	-	-	-	-	-	-	-	-
31 Dec 2018	-				-	-	-	-	-	-	-	-	-
31 Dec 2019	-				-	-	-	-	-	-	-	-	-
31 Dec 2020	-				-	-	-	-	-	-	-	-	-
31 Dec 2021	-				-	-	-	-	-	-	-	-	-
31 Dec 2022	-				-	-	-	-	-	-	-	-	-
31 Dec 2023	-				-	-	-	-	-	-	-	-	-
31 Dec 2024	-				-	-	-	-	-	-	-	-	-
31 Dec 2025	-				-	-	-	-	-	-	-	-	-
31 Dec 2026	-				-	-	-	-	-	-	-	-	-

Debt

2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter		**Constant**	**Unit**	**Total**	82	83	84	85	86	87	88	89	90
125		31 Dec 2027	-			-	-	-	-	-	-	-	-	-
126		31 Dec 2028	-			-	-	-	-	-	-	-	-	-
127		31 Dec 2029	-			-	-	-	-	-	-	-	-	-
128		31 Dec 2030	-			-	-	-	-	-	-	-	-	-
129		31 Dec 2031	-			-	-	-	-	-	-	-	-	-
130		31 Dec 2032	-			-	-	-	-	-	-	-	-	-
131		31 Dec 2033	-			-	-	-	-	-	-	-	-	-
132		31 Dec 2034	-			-	-	-	-	-	-	-	-	-
133		31 Dec 2035	-			-	-	-	-	-	-	-	-	-
134		31 Dec 2036	-			-	-	-	-	-	-	-	-	-
135		31 Dec 2037	-			-	-	-	-	-	-	-	-	-
136		31 Dec 2038	-			-	-	-	-	-	-	-	-	-
137		31 Dec 2039	-			-	-	-	-	-	-	-	-	-
138		31 Dec 2040	-			-	-	-	-	-	-	-	-	-
139		31 Dec 2041	-			-	-	-	-	-	-	-	-	-
140		31 Dec 2042	-			-	-	-	-	-	-	-	-	-
141		31 Dec 2043	-			-	-	-	-	-	-	-	-	-
142		31 Dec 2044	-			-	-	-	-	-	-	-	-	-
143		31 Dec 2045	-			-	-	-	-	-	-	-	-	-
144		31 Dec 2046	-			-	-	-	-	-	-	-	-	-
145		31 Dec 2047	-			-	-	-	-	-	-	-	-	-
146	Total Principal Repayment					-	-	-	-	-	-	-	-	-
147	Cumulative Principal Repayment					-	-	-	-	-	-	-	-	-
148														
149	Change in Borrowing due to Sensitivity		-	-	- -	-	-	-	-	-	-	-	-	-
150	Cumulative Principle from Sensitivity					-	-	-	-	-	-	-	-	-
151														
152	Outstanding Prinicpal					-	-	-	-	-	-	-	-	-
153	Accumulated Interest		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154	Outstanding Principal + Accumulated Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155														
156	All-in debt interest rate		5.00%	%										
157	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158														
159	Year to Start Paying Back		2030	Year										
160	Accumulate Interst?		1		toggle									
161	Accumulated Interest					0	0	0	0	0	0	0	0	0
162														
163														
164	Accumulated Interest		(0)											
165	Year to Finish Paying Back		2047	Year										
166	Year to Start Paying Back		2030	Year										
167	Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
168														
169														
170														
171	Year to Start Paying Back		2030	Year										
172	Accumulate Interst?		1		toggle									
173	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174														
175	Public Debt Scenario?		0											
176	Ratepayer Savings					-	-	-	-	-	-	-	-	-
177	Total Principal Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
178	Accumulated Interest Repayment		-	-	- -	-	-	-	-	-	-	-	-	-
179	Interest Paid		-	-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
2	**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
6	Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
12	**ENERGY Base Case**													
13	All-in debt interest rate	5.00%	%											
14	Compounded Interest Rate	5.12%												
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-	-
17	Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
19	Accumulate Interst?	1	toggle											
20	Accumulated Interest					35,595	35,598	35,601	35,604	35,608	35,611	35,615	35,619	35,623
22	Total Debt					56	59	62	65	69	72	76	80	84
24	Compounded Interest Rate	5.12%												
25	Interest					3	3	3	3	4	4	4	4	4
26						-	-	-	-	-	-	-	-	-
27	Cumulative Interest					35,598	35,601	35,604	35,608	35,611	35,615	35,619	35,623	35,627
29	Annual Principal Addition (Repayment)					3	3	3	3	3	4	4	4	4
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					3	3	3	3	3	4	4	4	4
37	Principle Repayment					-	-	-	-	-	-	-	-	-
39	Principle Balance					-	-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					56	59	62	65	69	72	76	80	84
42	Total Debt Balance					56	59	62	65	69	72	76	80	84
45	Interest Rate Sensitivity Scenario?	-	toggle											
46		(3,922)												
47		13												
48		2,028												
49		34,502												
50						-	-	-	-	-	-	-	-	-
52	**IR Sensitivity**													
53	Interest Rate Sensitivity Scenario?	-	toggle											
54	Year to Finish Paying Back	2047	Year											
55	Year to Start Paying Back	2030	Year											
56	Principal to be Repaid	24,977												
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61	Interest Rate Sensitivity	-	%											
62	Compounded Interest Rate	0.00%												
63	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
65	Year to Start Paying Back	2030	Year											
66	Accumulate Interst?	1		toggle										
67	Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

2	**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
6	Model column counter	**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
69	Accumulated Interest Base Case	6,178												
70	Accumulated Interest	7,537												
71	Change in Accumulated Interest	1,359												
72	Year to Finish Paying Back	2047	Year											
73	Year to Start Paying Back	2030	Year											
74	Accumulated Interest Repayment					-	-	-	-	-	-	-	-	-
78	Year to Start Paying Back	2030	Year											
79	Accumulate Interst?	1		toggle										
80	Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
82	Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
83	Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-	-
84	Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85	Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
87	Interest Rate Sensitivity Scenario?	-	toggle											
88	Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-	-
89	Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0	0
90	RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0	0
106	**OPG Sensitivity**													
107	Public Debt Scenario?	0												
108	Change in Total System Cost due to Sensitivity	-		-	- -	-	-	-	-	-	-	-	-	-
109	RPP Share of Consumption	50.00%	%											
110	Inflation	2.00%	%											
111	Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-	-
113	Year to Finish Paying Back	2047	Year											
114	Year to Start Paying Back	2030	Year											
115	31 Dec 2017	-				-	-	-	-	-	-	-	-	-
116	31 Dec 2018	-				-	-	-	-	-	-	-	-	-
117	31 Dec 2019	-				-	-	-	-	-	-	-	-	-
118	31 Dec 2020	-				-	-	-	-	-	-	-	-	-
119	31 Dec 2021	-				-	-	-	-	-	-	-	-	-
120	31 Dec 2022	-				-	-	-	-	-	-	-	-	-
121	31 Dec 2023	-				-	-	-	-	-	-	-	-	-
122	31 Dec 2024	-				-	-	-	-	-	-	-	-	-
123	31 Dec 2025	-				-	-	-	-	-	-	-	-	-
124	31 Dec 2026	-				-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**Debt**																	
2					**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3																		
4					Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5																		
6					Model column counter		**Constant**	**Unit**		**Total**	91	92	93	94	95	96	97	98	99
125						31 Dec 2027	-				-	-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-	-
148																			
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-	-
151																			
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																			
156					All-in debt interest rate		5.00%	%											
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																			
159					Year to Start Paying Back		2030	Year											
160					Accumulate Interst?		1		toggle										
161					Accumulated Interest						0	0	0	0	0	0	0	0	0
162																			
163																			
164					Accumulated Interest		(0)												
165					Year to Finish Paying Back		2047	Year											
166					Year to Start Paying Back		2030	Year											
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-	-
168																			
169																			
170																			
171					Year to Start Paying Back		2030	Year											
172					Accumulate Interst?		1		toggle										
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																			
175					Public Debt Scenario?		0												
176					Ratepayer Savings						-	-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Debt

	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL
2	**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
4	Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123
6	Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107
12	**ENERGY Base Case**												
13	All-in debt interest rate	5.00%	%										
14	Compounded Interest Rate	5.12%											
16	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
17	Cumulative Principal					(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)	(35,539)
19	Accumulate Interst?	1	toggle										
20	Accumulated Interest					35,627	35,632	35,636	35,641	35,647	35,652	35,658	35,664
22	Total Debt					88	93	97	102	108	113	119	125
24	Compounded Interest Rate	5.12%											
25	Interest					5	5	5	5	6	6	6	6
26						-	-	-	-	-	-	-	-
27	Cumulative Interest					35,632	35,636	35,641	35,647	35,652	35,658	35,664	35,670
29	Annual Principal Addition (Repayment)					4	5	5	5	5	6	6	6
34	Borrowing for Rate Reductions					-	-	-	-	-	-	-	-
35	Interest Paid In-Year					-	-	-	-	-	-	-	-
36	Borrowing to Fund Interest					4	5	5	5	5	6	6	6
37	Principle Repayment					-	-	-	-	-	-	-	-
39	Principle Balance					-	-	-	-	-	-	-	-
40	Accumulated Interest Repaid					-	-	-	-	-	-	-	-
41	Accumulated Interest Balance					88	93	97	102	108	113	119	125
42	Total Debt Balance					88	93	97	102	108	113	119	125
45	Interest Rate Sensitivity Scenario?	-	toggle										
46		(3,922)											
47		13											
48		2,028											
49		34,502											
50						-	-	-	-	-	-	-	-
52	**IR Sensitivity**												
53	Interest Rate Sensitivity Scenario?	-	toggle										
54	Year to Finish Paying Back	2047	Year										
55	Year to Start Paying Back	2030	Year										
56	Principal to be Repaid	24,977											
57	Principle Balance	-		-	- -	-	-	-	-	-	-	-	-
58	Accumulated Interest Balance	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
59	Total Debt Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61	Interest Rate Sensitivity	-	%										
62	Compounded Interest Rate	0.00%											
63	Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
65	Year to Start Paying Back	2030	Year										
66	Accumulate Interst?	1		toggle									
67	Accumulated Interest Balance					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL
1	**Debt**																
2					**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3																	
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107
68																	
69					Accumulated Interest Base Case	6,178											
70					Accumulated Interest	7,537											
71					Change in Accumulated Interest	1,359											
72					Year to Finish Paying Back	2047	Year										
73					Year to Start Paying Back	2030	Year										
74					Accumulated Interest Repayment					-	-	-	-	-	-	-	-
75																	
76																	
77																	
78					Year to Start Paying Back	2030	Year										
79					Accumulate Interst?	1		toggle									
80					Interest Paid					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
81																	
82					Total Principal Repayment	-		-	- -	-	-	-	-	-	-	-	-
83					Accumulated Interest Repayment	-		-	- -	-	-	-	-	-	-	-	-
84					Interest Paid	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
85					Total Debt Service					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
86																	
87					Interest Rate Sensitivity Scenario?	-	toggle										
88					Annual Ratepayer Borrowing for GA					-	-	-	-	-	-	-	-
89					Total Debt Service	-		-	- -	0	0	0	0	0	0	0	0
90					RPP Cost IR Sensitivity					0	0	0	0	0	0	0	0
91																	
92																	
93																	
94																	
95																	
96																	
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	
106	**OPG Sensitivity**																
107					Public Debt Scenario?	0											
108					Change in Total System Cost due to Sensitivity			-	- -	-	-	-	-	-	-	-	-
109					RPP Share of Consumption	50.00%	%										
110					Inflation	2.00%	%										
111					Change in Borrowing due to Sensitivity					-	-	-	-	-	-	-	-
112																	
113					Year to Finish Paying Back			2047	Year								
114					Year to Start Paying Back			2030	Year								
115						31 Dec 2017		-		-	-	-	-	-	-	-	-
116						31 Dec 2018		-		-	-	-	-	-	-	-	-
117						31 Dec 2019		-		-	-	-	-	-	-	-	-
118						31 Dec 2020		-		-	-	-	-	-	-	-	-
119						31 Dec 2021		-		-	-	-	-	-	-	-	-
120						31 Dec 2022		-		-	-	-	-	-	-	-	-
121						31 Dec 2023		-		-	-	-	-	-	-	-	-
122						31 Dec 2024		-		-	-	-	-	-	-	-	-
123						31 Dec 2025		-		-	-	-	-	-	-	-	-
124						31 Dec 2026		-		-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL
1	**Debt**																
2					**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3																	
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123
5																	
6					Model column counter		**Constant**	**Unit**		**Total**	100	101	102	103	104	105	106	107
125						31 Dec 2027	-				-	-	-	-	-	-	-	-
126						31 Dec 2028	-				-	-	-	-	-	-	-	-
127						31 Dec 2029	-				-	-	-	-	-	-	-	-
128						31 Dec 2030	-				-	-	-	-	-	-	-	-
129						31 Dec 2031	-				-	-	-	-	-	-	-	-
130						31 Dec 2032	-				-	-	-	-	-	-	-	-
131						31 Dec 2033	-				-	-	-	-	-	-	-	-
132						31 Dec 2034	-				-	-	-	-	-	-	-	-
133						31 Dec 2035	-				-	-	-	-	-	-	-	-
134						31 Dec 2036	-				-	-	-	-	-	-	-	-
135						31 Dec 2037	-				-	-	-	-	-	-	-	-
136						31 Dec 2038	-				-	-	-	-	-	-	-	-
137						31 Dec 2039	-				-	-	-	-	-	-	-	-
138						31 Dec 2040	-				-	-	-	-	-	-	-	-
139						31 Dec 2041	-				-	-	-	-	-	-	-	-
140						31 Dec 2042	-				-	-	-	-	-	-	-	-
141						31 Dec 2043	-				-	-	-	-	-	-	-	-
142						31 Dec 2044	-				-	-	-	-	-	-	-	-
143						31 Dec 2045	-				-	-	-	-	-	-	-	-
144						31 Dec 2046	-				-	-	-	-	-	-	-	-
145						31 Dec 2047	-				-	-	-	-	-	-	-	-
146					Total Principal Repayment						-	-	-	-	-	-	-	-
147					Cumulative Principal Repayment						-	-	-	-	-	-	-	-
148																		
149					Change in Borrowing due to Sensitivity		-	-	-	-	-	-	-	-	-	-	-	-
150					Cumulative Principle from Sensitivity						-	-	-	-	-	-	-	-
151																		
152					Outstanding Prinicpal						-	-	-	-	-	-	-	-
153					Accumulated Interest		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
154					Outstanding Principal + Accumulated Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
155																		
156					All-in debt interest rate		5.00%	%										
157					Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
158																		
159					Year to Start Paying Back		2030	Year										
160					Accumulate Interst?		1		toggle									
161					Accumulated Interest						0	0	0	0	0	0	0	0
162																		
163																		
164					Accumulated Interest		(0)											
165					Year to Finish Paying Back		2047	Year										
166					Year to Start Paying Back		2030	Year										
167					Accumulated Interest Repayment						-	-	-	-	-	-	-	-
168																		
169																		
170																		
171					Year to Start Paying Back		2030	Year										
172					Accumulate Interst?		1		toggle									
173					Interest Paid						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
174																		
175					Public Debt Scenario?		0											
176					Ratepayer Savings						-	-	-	-	-	-	-	-
177					Total Principal Repayment		-	-	-	-	-	-	-	-	-	-	-	-
178					Accumulated Interest Repayment		-	-	-	-	-	-	-	-	-	-	-	-
179					Interest Paid		-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180					Total Debt Service						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Bill Impact

Model period ending						**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
Financial year ending						2017	2018	2019	2020	2021	2022	2023	2024
Model column counter	**Constant**	**Unit**		**Total**		1	2	3	4	5	6	7	8
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	143	143	142	142	142	142	142	142
Base Residential Demand						72	72	71	71	71	71	71	71
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	143	143	142	142	142	142	142	142
Residential Demand Sensitivity						72	72	71	71	71	71	71	71
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
ENERGY Scenario Bill Increase (Savings)						-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
ENERGY Bill Reduction %						-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	-	-	-	-	-	-	-	-
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
IR Sensitivity Bill Increase (Savings)						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
IR Sensitivity Bill Reduction %						0%	0%	0%	0%	0%	0%	0%	0%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	-	-	-	-	-	-	-	-
Base Residential Demand	-		-	-	-	72	72	71	71	71	71	71	71
OPG Sensitivity Bill Impact						-	-	-	-	-	-	-	-
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
OPG Sensitivity Bill Reduction %						-	-	-	-	-	-	-	-
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
Total Debt Service	-		-	-	-	-	-	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	72	72	71	71	71	71	71	71
Bill Impact after Change in Demand						-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
Change in Demand Bill Reduction %						-17.18%	-16.94%	-16.73%	-19.35%	-16.94%	-14.11%	-10.18%	-14.13%
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	(26)	(26)	(26)	(32)	(28)	(24)	(18)	(25)
ENERGY Bill Reduction						126	129	131	135	138	145	156	151
ENERGY Base Residential Bill	-		-	-	-	153	155	158	168	166	169	174	176

Bill Impact

2		**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
4		Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
6		Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					153	155	158	168	166	169	174	176
71		ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					126	129	131	135	138	145	156	151
75		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
76		Bill Impact after Change in Demand	-	-	-	-	-26.23	-26.31	-26.42	-32.48	-28.10	-23.87	-17.69	-24.93
77		Bill Reduction after Change in Demand					126	129	131	135	138	145	156	151
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
87		25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	126	129	131	135	138	145	191	193
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
97		25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	126	129	131	135	138	185	189	191
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
104		Record Here												
105		ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
106		25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
107		20% ENERGY Bill Reduction					134	137	140	144	146	154	165	161
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
112		IR Sensitivity Bill	-	-	-	-	153	155	158	168	166	169	174	176
114		Record Here												
115		ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
116		25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
117		7% Interest Rate					126	129	131	135	138	145	156	151
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
122		OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
124		Record Here												

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
3																	
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
125					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
126					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
127					30% BP Cost Increase					126	129	131	135	138	145	156	151
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
132					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
133																	
134					Record Here												
135					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
136					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
137					High Gas Price					126	129	131	135	138	145	156	151
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
142					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
143																	
144					Record Here												
145					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
146					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
147					Federal Carbon Prices					126	129	131	135	138	145	156	151
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
152					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
153																	
154					Record Here												
155					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
156					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
157					66.7 cent CAD					126	129	131	135	138	145	156	151
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
162					Bill Reduction after Change in Demand	-	-	-	-	126	129	131	135	138	145	156	151
163																	
164					Record Here												
165					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
166					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
167					Low Demand					126	129	131	134	137	144	155	150
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
172					OPG Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
173																	
174					Record Here												
175					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
176					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
177					Very High Gas Price					126	129	131	135	138	145	156	151
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
3																	
4					Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
186					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
187					Feb 27 Ministry Scenario	-	-	-	-	126	129	131	135	138	149	165	165
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	126	129	131	135	138	145	156	151
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
196					25% ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	126	129	131	135	138	149	165	165
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	153	155	158	168	166	169	174	176
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	126	129	131	135	138	145	156	151
202					Bill Reduction after Change in Demand	-	-	-	-	126	129	131	135	138	145	156	151
203																	
204					Record Here												
205					ENERGY Base Residential Bill					153	155	158	168	166	169	174	176
206					25% ENERGY Bill Reduction					126	129	131	135	138	145	156	151
207					High Demand					127	129	132	136	139	147	157	153
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
216					6 Years Savings / 25 Year Amortization					-17%	-17%	-17%	-19%	-17%	-14%	10%	10%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
224					5 Years Savings / 21 Year Amortization					-17%	-17%	-17%	-19%	-17%	9%	9%	8%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
232					ENERGY 20% Bill Reduction					-12%	-12%	-12%	-14%	-12%	-9%	-5%	-9%
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
		Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
		Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
		ENERGY 25 % Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		7% Interest Rate Sensitivity					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	BP 30%													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 8, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		BP 30% Cost Increase					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 4, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		High Gas Price					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Federal CO2 Prices													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 5, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Federal Carbon Prices					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Low CAD													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 6, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		66.7 cent CAD					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Low Demand													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 11, record below		Change in Demand Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Low Demand					-17%	-17%	-17%	-20%	-18%	-15%	-11%	-15%
	Double High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario12, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Very High Gas Price					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	Feb 27 Ministry Scenario													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
Scenario 13, record below		ENERGY Bill Reduction %	-	-	-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%

Bill Impact

		Model period ending					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
		Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024
		Model column counter	**Constant**	**Unit**		**Total**	1	2	3	4	5	6	7	8
		Feb 27 Ministry Scenario					-17%	-17%	-17%	-19%	-17%	-12%	-5%	-7%
	Feb 27 Ministry Scenario 7% IR													
	cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Feb 27 Ministry Scenario 7% IR					-17%	-17%	-17%	-19%	-17%	-12%	-5%	-7%
	High Demand													
	cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
	enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		Record Here												
		ENERGY 25% Bill Reduction					-17%	-17%	-17%	-19%	-17%	-14%	-10%	-14%
		High Demand					-17%	-17%	-16%	-19%	-16%	-13%	-9%	-13%
	Debt Cash Flows													
	CF Base Case													
		Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
		Interest					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest	-		-	-	-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions	-		-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA	-		-	-	(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
		Record Here												
		Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
		Interest ($35.7B total)					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest ($13.5B total)					-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions ($25.0B total)					2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA					(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt ($38.5B total)					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
	CF Feb 27													
		Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
		Interest					-	(128)	(263)	(404)	(582)	(748)	(902)	(1,034)
		Borrowing to Fund Interest	-		-	-	-	128	263	404	582	748	902	1,034
		Borrowing for Rate Reductions	-		-	-	2,501	2,508	2,501	3,075	2,660	2,260	1,675	2,360
		Change in GA	-		-	-	(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(2,260)	(1,675)	(2,360)
		Total New Debt					2,501	2,636	2,764	3,479	3,242	3,008	2,577	3,394
		Record Here												
		Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
		Interest ($20.7B total)					-	(128)	(263)	(404)	(582)	(748)	(882)	(972)
		Borrowing to Fund Interest ($3.9B total)					-	128	263	404	582	748	882	972
		Borrowing for Rate Reductions ($17.1B total)					2,501	2,508	2,501	3,075	2,660	1,874	868	1,093
		Change in GA					(2,501)	(2,508)	(2,501)	(3,075)	(2,660)	(1,874)	(868)	(1,093)
		Total New Debt ($21.9B total)					2,501	2,636	2,764	3,479	3,242	2,622	1,750	2,064
	Balances													
	Balances - Base Case													
		Principle Balance	-		-	-	2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
		Accumulated Interest Balance	-		-	-	-	128	391	795	1,377	2,125	3,027	4,061
		Record Here												
		Debt Balance - Funding for Rate Reductions					2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539

Bill Impact

Model period ending						**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**
Financial year ending						2017	2018	2019	2020	2021	2022	2023	2024
Model column counter	**Constant**	**Unit**		**Total**		1	2	3	4	5	6	7	8
Debt Balance - Funding for Interest						-	128	391	795	1,377	2,125	3,027	4,061
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	-	-
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Debt Balance - Funding for Interest						-	181	556	1,139	1,986	3,087	4,431	5,994
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	128	391	795	1,377	2,125	3,027	4,061
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,118	15,986	17,078
Debt Balance - Funding for Interest						-	128	391	795	1,377	2,125	3,007	3,979
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		2,501	5,009	7,509	10,584	13,244	15,504	17,178	19,539
Accumulated Interest Balance	-	-	-	-		-	-	-	-	-	-	-	-
Record Here													
Debt Balance - Funding for Rate Reductions						2,501	5,009	7,509	10,584	13,244	15,118	15,986	17,078
Debt Balance - Funding for Interest						-	181	556	1,139	1,986	3,087	4,403	5,877

				ENERGY 25% Bill Reduction			Feb 27 Ministry Scenario		
	ENERGY Base	IR Sensitivity	4%	5%	7%	4%	5%	7%	
Total Borrowing for Rate Reductions	24,977	24,977	24,977	24,977	24,977	17,078	17,078	17,078	
Total Borrowing to Fund Interest	13,524	20,775	10,121	13,524	20,775	3,922	4,842	7,537	
Total Debt	38,501	45,751	35,098	38,501	45,751	21,001	21,920	24,615	
Total Interest Paid (Cost for Deferral Program)	35,664	28,660	23,162	35,664	51,230	14,060	20,654	28,660	

Bill Impact

	Model period ending					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
	Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
	Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
	RPP Share of Consumption	50.00%	%										
	Base Electricity Demand	-		-	- -	142	141	142	142	142	143	143	144
	Base Residential Demand					71	71	71	71	71	72	72	72
	RPP Share of Consumption	50.00%	%										
	Total Electricity Demand	-		-	- -	142	141	142	142	142	143	143	144
	Residential Demand Sensitivity					71	71	71	71	71	72	72	72
ENERGY BASE													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	1,555	853	1,649	1,207	173	(343)	(1,644)	(1,718)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	ENERGY Scenario Bill Increase (Savings)					-16.43	-9.08	-17.42	-12.75	-1.83	3.59	17.24	17.89
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	ENERGY Bill Reduction %					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
IR Sensitivity													
	Average Household Demand	0.75	MWh										
	RPP Cost IR Sensitivity	-		-	- -	-	-	-	-	-	(2,513)	(2,472)	(2,430)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	26.36	25.93	25.31
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	14%	13%	13%
OPG SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Total Debt Service	-		-	- -	-	-	-	-	-	(0)	(0)	(0)
	Base Residential Demand	-		-	- -	71	71	71	71	71	72	72	72
	OPG Sensitivity Bill Impact					-	-	-	-	-	(0.00)	(0.00)	(0.00)
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	OPG Sensitivity Bill Reduction %					-	-	-	-	-	-0.00%	-0.00%	-0.00%
	Sensitivity Incremental to Ministry Scenario?	0	toggle										
	OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	1,555	853	1,649	1,207	173	(343)	(1,644)	(1,718)
	Total Debt Service	-		-	- -	-	-	-	-	-	(0)	(0)	(0)
	RPP Share of Consumption	50.00%	%										
	Residential Demand Sensitivity	-		-	- -	71	71	71	71	71	72	72	72
	Bill Impact after Change in Demand					-16.43	-9.08	-17.42	-12.75	-1.83	18.20	18.20	18.08
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	Change in Demand Bill Reduction %					-8.88%	-5.03%	-9.17%	-6.70%	-0.97%	9.49%	9.37%	9.20%
TOTAL BILLS													
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197
	ENERGY Scenario Bill Increase (Savings)	-		-	- -	(16)	(9)	(17)	(13)	(2)	4	17	18
	ENERGY Bill Reduction					169	171	172	178	188	195	212	214
	ENERGY Base Residential Bill	-		-	- -	185	181	190	190	190	192	194	197

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	26	26	25
69					IR Sensitivity Bill					185	181	190	190	190	218	220	222
70																	
71					ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	(0.00)	(0.00)	(0.00)
73					OPG Sensitivity Bill					169	171	172	178	188	210	213	215
74																	
75					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
76					Bill Impact after Change in Demand	-	-	-	-	-16.43	-9.08	-17.42	-12.75	-1.83	18.20	18.20	18.08
77					Bill Reduction after Change in Demand					169	171	172	178	188	210	213	215
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
87					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	202	197	206	206	205	206	208	210
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
97					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	199	195	203	204	202	204	206	208
99																	
100	**20% Bill Reduction Chart**															-	-
101					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
103																	
104					Record Here												
105					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
106					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
107					20% ENERGY Bill Reduction					178	181	182	188	198	206	214	216
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
112					IR Sensitivity Bill	-	-	-	-	185	181	190	190	190	218	220	222
113																	
114					Record Here												
115					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
116					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
117					7% Interest Rate					169	171	172	178	188	254	255	254
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
122					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
125					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
126					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
127					30% BP Cost Increase					169	171	172	178	188	207	223	227
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
132					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
133																	
134					Record Here												
135					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
136					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
137					High Gas Price					169	171	172	178	188	200	217	220
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
142					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
143																	
144					Record Here												
145					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
146					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
147					Federal Carbon Prices					169	171	172	178	188	197	213	216
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
152					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
153																	
154					Record Here												
155					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
156					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
157					66.7 cent CAD					169	171	172	178	188	197	213	217
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
162					Bill Reduction after Change in Demand	-	-	-	-	169	171	172	178	188	210	213	215
163																	
164					Record Here												
165					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
166					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
167					Low Demand					167	171	171	177	188	199	217	220
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
172					OPG Sensitivity Bill	-	-	-	-	169	171	172	178	188	210	213	215
173																	
174					Record Here												
175					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
176					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
177					Very High Gas Price					169	171	172	178	188	205	222	225
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214

	A	B	C	D	E	F	G	H	I	R	S	T	U	V	W	X	Y
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
3																	
4					Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
186					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
187					Feb 27 Ministry Scenario	-	-	-	-	187	196	203	209	208	210	213	215
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	169	171	172	178	188	195	212	214
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
196					25% ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	187	196	203	209	208	210	213	215
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	185	181	190	190	190	192	194	197
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	169	171	172	178	188	195	212	214
202					Bill Reduction after Change in Demand	-	-	-	-	169	171	172	178	188	210	213	215
203																	
204					Record Here												
205					ENERGY Base Residential Bill					185	181	190	190	190	192	194	197
206					25% ENERGY Bill Reduction					169	171	172	178	188	195	212	214
207					High Demand					170	172	175	179	188	192	205	208
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
216					6 Years Savings / 25 Year Amortization					9%	9%	8%	8%	8%	8%	7%	7%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
224					5 Years Savings / 21 Year Amortization					8%	8%	7%	7%	7%	6%	6%	6%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
232					ENERGY 20% Bill Reduction					-4%	0%	-4%	-1%	4%	7%	10%	10%
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	14%	13%	13%
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
		Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
		Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
		ENERGY 25 % Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		7% Interest Rate Sensitivity					-9%	-5%	-9%	-7%	-1%	32%	31%	29%
	BP 30%													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 8, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		BP 30% Cost Increase					-9%	-5%	-9%	-7%	-1%	8%	15%	15%
	High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 4, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		High Gas Price					-9%	-5%	-9%	-7%	-1%	4%	12%	12%
	Federal CO2 Prices													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 5, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Federal Carbon Prices					-9%	-5%	-9%	-7%	-1%	3%	10%	10%
	Low CAD													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 6, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		66.7 cent CAD					-9%	-5%	-9%	-7%	-1%	3%	10%	10%
	Low Demand													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 11, record below		Change in Demand Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	9%	9%	9%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Low Demand					-9%	-5%	-10%	-7%	-1%	4%	11%	12%
	Double High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario12, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-0%	-0%	-0%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Very High Gas Price					-9%	-5%	-9%	-7%	-1%	7%	14%	15%
	Feb 27 Ministry Scenario													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
Scenario 13, record below		ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
		Record Here												
		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%

Bill Impact

		Model period ending					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
		Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
		Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
296		Feb 27 Ministry Scenario					1%	9%	7%	10%	10%	9%	9%	9%
298	**Feb 27 Ministry Scenario 7% IR**													
299	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
300	nario 14, record below	IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	14%	13%	13%
302		Record Here												
303		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
304		Feb 27 Ministry Scenario 7% IR					12%	14%	12%	14%	14%	14%	13%	13%
306	**High Demand**													
307	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	2%	9%	9%
308	enario 15, record below	Change in Demand Bill Reduction %	-	-	-	-	-9%	-5%	-9%	-7%	-1%	9%	9%	9%
310		Record Here												
311		ENERGY 25% Bill Reduction					-9%	-5%	-9%	-7%	-1%	2%	9%	9%
312		High Demand					-8%	-4%	-8%	-6%	-1%	-0%	6%	6%
314	**Debt Cash Flows**													
315	**CF Base Case**													
316		Principle Repayment	-	-	-	-	-	-	-	-	-	-	-	-
317		Interest					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
318		Borrowing to Fund Interest	-	-	-	-	1,207	1,349	1,461	1,621	1,765	1,522	299	240
319		Borrowing for Rate Reductions	-	-	-	-	1,555	853	1,649	1,207	173	-	-	-
320		Change in GA	-	-	-	-	(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
321		Total New Debt					2,763	2,202	3,111	2,828	1,938	1,522	299	240
323		Record Here												
324		Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325		Interest ($35.7B total)					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
326		Borrowing to Fund Interest ($13.5B total)					1,207	1,349	1,461	1,621	1,765	1,522	299	240
327		Borrowing for Rate Reductions ($25.0B total)					1,555	853	1,649	1,207	173	-	-	-
328		Change in GA					(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
329		Total New Debt ($38.5B total)					2,763	2,202	3,111	2,828	1,938	1,522	299	240
331	**CF Feb 27**													
332		Principle Repayment	-	toggle		- -	-	-	-	-	-	-	-	-
333		Interest					(1,207)	(1,349)	(1,461)	(1,621)	(1,765)	(1,864)	(1,942)	(1,957)
334		Borrowing to Fund Interest	-	-		- -	1,207	1,349	1,461	1,621	1,765	1,522	299	240
335		Borrowing for Rate Reductions	-	-		- -	1,555	853	1,649	1,207	173	-	-	-
336		Change in GA	-	-		- -	(1,555)	(853)	(1,649)	(1,207)	(173)	343	1,644	1,718
337		Total New Debt					2,763	2,202	3,111	2,828	1,938	1,522	299	240
339		Record Here												
340		Principle Repayment ($21.9B total)					-	(343)	(160)	(640)	(672)	(707)	(743)	(781)
341		Interest ($20.7B total)					(1,077)	(1,121)	(1,104)	(1,096)	(1,063)	(1,029)	(992)	(954)
342		Borrowing to Fund Interest ($3.9B total)					863	-	-	-	-	-	-	-
343		Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344		Change in GA					215	1,464	1,264	1,736	1,736	1,736	1,736	1,736
345		Total New Debt ($21.9B total)					863	-	-	-	-	-	-	-
347	**Balances**													
348	**Balances - Base Case**													
349		Principle Balance	-	-	-	-	21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
350		Accumulated Interest Balance	-	-	-	-	5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
351		Record Here												
352		Debt Balance - Funding for Rate Reductions					21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977

Bill Impact

2		**Model period ending**					**31 Dec 2025**	**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**
4		Financial year ending					2025	2026	2027	2028	2029	2030	2031	2032
6		Model column counter	**Constant**	**Unit**		**Total**	9	10	11	12	13	14	15	16
353		Debt Balance - Funding for Interest					5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
357		Accumulated Interest Balance	-	-	-	-	-	-	-	-	-	-	5,571	5,243
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
360		Debt Balance - Funding for Interest					7,839	9,931	12,235	14,826	17,690	20,775	19,621	18,466
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
364		Accumulated Interest Balance	-	-	-	-	5,268	6,617	8,078	9,699	11,464	12,986	13,284	13,524
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					17,078	16,735	16,576	15,936	15,263	14,557	13,814	13,032
367		Debt Balance - Funding for Interest					4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	21,094	21,947	23,596	24,803	24,977	24,977	24,977	24,977
371		Accumulated Interest Balance	-	-	-	-	-	-	-	-	-	-	5,571	5,243
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					17,078	16,735	16,576	15,936	15,263	14,557	13,814	13,032
374		Debt Balance - Funding for Interest					7,537	7,209	6,881	6,554	6,226	5,898	5,571	5,243

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
	Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
	Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
	RPP Share of Consumption	50.00%	%										
	Base Electricity Demand	-		-	- -	145	146	148	149	149	150	150	151
	Base Residential Demand					73	73	74	74	75	75	75	76
	RPP Share of Consumption	50.00%	%										
	Total Electricity Demand	-		-	- -	145	146	148	149	149	150	150	151
	Residential Demand Sensitivity					73	73	74	74	75	75	75	76
ENERGY BASE													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(2,544)	(3,277)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
	Base Residential Demand	-		-	- -	73	73	74	74	75	75	75	76
	ENERGY Scenario Bill Increase (Savings)					26.32	33.66	39.75	39.59	39.42	39.26	39.10	38.94
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ENERGY Bill Reduction %					13%	17%	20%	20%	20%	20%	20%	19%
IR Sensitivity													
	Average Household Demand	0.75	MWh										
	RPP Cost IR Sensitivity	-		-	- -	(2,387)	(2,343)	(2,298)	(2,251)	(2,204)	(2,155)	(2,106)	(2,054)
	Base Residential Demand	-		-	- -	73	73	74	74	75	75	75	76
	IR Sensitivity Bill Increase (Savings)					24.69	24.07	23.29	22.72	22.15	21.58	20.99	20.39
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	IR Sensitivity Bill Reduction %					12%	12%	12%	11%	11%	11%	10%	10%
OPG SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	Base Residential Demand	-		-	- -	73	73	74	74	75	75	75	76
	OPG Sensitivity Bill Impact					(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	OPG Sensitivity Bill Reduction %					-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%
	Sensitivity Incremental to Ministry Scenario?	0	toggle										
	OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
	Average Household Demand	0.75	MWh										
	Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	(2,544)	(3,277)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)
	Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	RPP Share of Consumption	50.00%	%										
	Residential Demand Sensitivity	-		-	- -	73	73	74	74	75	75	75	76
	Bill Impact after Change in Demand					17.95	17.83	17.59	17.52	17.44	17.37	17.30	17.23
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	Change in Demand Bill Reduction %					9.04%	8.91%	8.93%	8.86%	8.78%	8.71%	8.64%	8.57%
TOTAL BILLS													
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ENERGY Scenario Bill Increase (Savings)	-		-	- -	26	34	40	40	39	39	39	39
	ENERGY Bill Reduction					225	234	237	237	238	239	239	240
	ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201

Bill Impact

		Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
		IR Sensitivity Bill Increase (Savings)	-		-	- -	25	24	23	23	22	22	21	20
		IR Sensitivity Bill					223	224	220	221	221	221	221	221
		ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		OPG Sensitivity Bill Impact	-		-	- -	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
		OPG Sensitivity Bill					217	218	215	215	216	217	218	218
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		Bill Impact after Change in Demand	-		-	- -	17.95	17.83	17.59	17.52	17.44	17.37	17.30	17.23
		Bill Reduction after Change in Demand					217	218	215	215	216	217	218	218
	BILL CHARTS														
	25% Reduction/6 Year Reduction Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
	enario 10 Record below	OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		6 Year Bill Reduction / 25 Year Amortization	-		-	- -	212	213	209	209	210	210	211	211
	25% Reduction/5 Year Reduction Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 1, Record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
	enario 7 Record below	OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		5 Year Bill Reduction / 21 Year Amortization	-		-	- -	210	211	207	207	208	208	209	209
	20% Bill Reduction Chart						-	-	-	-	-	-	-	
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	enario 2, record below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		Record Here													
		ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
		20% ENERGY Bill Reduction					218	220	216	217	218	218	219	220
	IR Sensitivity Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ario 9, Record all below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		IR Sensitivity Bill	-		-	- -	223	224	220	221	221	221	221	221
		Record Here													
		ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
		25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
		7% Interest Rate					254	253	247	246	245	243	242	241
	Generator Cost Chart														
		ENERGY Base Residential Bill	-		-	- -	199	200	197	198	199	199	200	201
	ario 8 Record all below	ENERGY Bill Reduction	-		-	- -	225	234	237	237	238	239	239	240
		OPG Sensitivity Bill	-		-	- -	217	218	215	215	216	217	218	218
		Record Here													

	A	B	C	D	E	F	G	H	I	Z	AA	AB	AC	AD	AE	AF	AG
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
3																	
4					Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
125					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
126					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
127					30% BP Cost Increase					238	247	251	252	254	255	257	258
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
132					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
133																	
134					Record Here												
135					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
136					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
137					High Gas Price					231	240	243	244	245	246	247	248
138														6.99	7.36	7.76	8.21
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
142					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
143																	
144					Record Here												
145					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
146					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
147					Federal Carbon Prices					226	235	238	239	239	240	241	241
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
152					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
153																	
154					Record Here												
155					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
156					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
157					66.7 cent CAD					227	236	239	240	241	241	242	243
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
162					Bill Reduction after Change in Demand	-	-	-	-	217	218	215	215	216	217	218	218
163																	
164					Record Here												
165					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
166					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
167					Low Demand					231	241	245	246	246	247	248	249
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
172					OPG Sensitivity Bill	-	-	-	-	217	218	215	215	216	217	218	218
173																	
174					Record Here												
175					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
176					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
177					Very High Gas Price					236	246	249	251	252	253	255	257
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240

	A	B	C	D	E	F	G	H	I	Z	AA	AB	AC	AD	AE	AF	AG
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
3																	
4					Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
182				enario 13 Record below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
186					25% ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
187					Feb 27 Ministry Scenario	-	-	-	-	217	218	215	215	216	217	218	218
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
191				enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
192				enario 14 Record below	IR Sensitivity Bill	-	-	-	-	225	234	237	237	238	239	239	240
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
196					25% ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	217	218	215	215	216	217	218	218
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	199	200	197	198	199	199	200	201
201				rio 15 Record all below	ENERGY Bill Reduction	-	-	-	-	225	234	237	237	238	239	239	240
202					Bill Reduction after Change in Demand	-	-	-	-	217	218	215	215	216	217	218	218
203																	
204					Record Here												
205					ENERGY Base Residential Bill					199	200	197	198	199	199	200	201
206					25% ENERGY Bill Reduction					225	234	237	237	238	239	239	240
207					High Demand					216	223	224	225	225	225	226	226
208																	
209	**% of Bill**																
210				**25% Reduction/6 Year Reduction Chart**													
211				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
212				nario 10, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
216					6 Years Savings / 25 Year Amortization					7%	6%	6%	6%	6%	5%	5%	5%
217																	
218				**25% Reduction/5 Year Reduction Chart**													
219				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
220				enario 7, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
224					5 Years Savings / 21 Year Amortization					6%	5%	5%	5%	5%	4%	4%	4%
225																	
226				**20% Reduction**													
227				enario 2, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
232					ENERGY 20% Bill Reduction					10%	10%	10%	10%	10%	10%	9%	9%
233																	
234				**7% Interest Rate**													
235					ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
236					IR Sensitivity Bill Reduction %	-	-	-	-	12%	12%	12%	11%	11%	11%	10%	10%
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
		ENERGY 25 % Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		7% Interest Rate Sensitivity					28%	27%	26%	24%	23%	22%	21%	20%
	BP 30%														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		BP 30% Cost Increase					20%	24%	27%	28%	28%	28%	28%	28%
	High Gas Price														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		High Gas Price					16%	20%	23%	23%	23%	23%	23%	23%
	Federal CO2 Prices														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Federal Carbon Prices					14%	17%	21%	21%	20%	20%	20%	20%
	Low CAD														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		66.7 cent CAD					14%	18%	21%	21%	21%	21%	21%	21%
	Low Demand														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	9%	9%	9%	9%	9%	9%	9%	9%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Low Demand					16%	20%	24%	24%	24%	24%	24%	24%
	Double High Gas Price														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
		Very High Gas Price					19%	23%	27%	27%	27%	27%	27%	28%
	Feb 27 Ministry Scenario														
	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
	nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
		Record Here													
		ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%

	A	B	C	D	E	F	G	H	I	Z	AA	AB	AC	AD	AE	AF	AG
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
3																	
4					Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
296					Feb 27 Ministry Scenario					9%	9%	9%	9%	9%	9%	9%	9%
297																	
298		**Feb 27 Ministry Scenario 7% IR**															
299	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
300	nario 14, record below				IR Sensitivity Bill Reduction %	-	-	-	-	12%	12%	12%	11%	11%	11%	10%	10%
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
304					Feb 27 Ministry Scenario 7% IR					12%	12%	12%	11%	11%	11%	10%	10%
305																	
306		**High Demand**															
307	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	13%	17%	20%	20%	20%	20%	20%	19%
308	enario 15, record below				Change in Demand Bill Reduction %	-	-	-	-	9%	9%	9%	9%	9%	9%	9%	9%
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					13%	17%	20%	20%	20%	20%	20%	19%
312					High Demand					9%	11%	14%	14%	13%	13%	13%	13%
313																	
314	**Debt Cash Flows**																
315		**CF Base Case**															
316					Principle Repayment	-	-	-	-	(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
317					Interest					(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
318					Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	-
319					Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
320					Change in GA	-	-	-	-	2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
321					Total New Debt					-	-	-	-	-	-	-	-
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
325					Interest ($35.7B total)					(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
326					Borrowing to Fund Interest ($13.5B total)					-	-	-	-	-	-	-	-
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
329					Total New Debt ($38.5B total)					-	-	-	-	-	-	-	-
330																	
331		**CF Feb 27**															
332					Principle Repayment	-	toggle		-	(575)	(1,336)	(2,050)	(2,155)	(2,265)	(2,381)	(2,503)	(2,631)
333					Interest					(1,970)	(1,940)	(1,872)	(1,767)	(1,657)	(1,541)	(1,419)	(1,291)
334					Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	-
335					Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
336					Change in GA	-	-	-	-	2,544	3,277	3,922	3,922	3,922	3,922	3,922	3,922
337					Total New Debt					-	-	-	-	-	-	-	-
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					(821)	(863)	(907)	(954)	(1,002)	(1,054)	(1,108)	(1,164)
341					Interest ($20.7B total)					(914)	(872)	(828)	(782)	(733)	(682)	(628)	(571)
342					Borrowing to Fund Interest ($3.9B total)					-	-	-	-	-	-	-	-
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					1,736	1,736	1,736	1,736	1,736	1,736	1,736	1,736
345					Total New Debt ($21.9B total)					-	-	-	-	-	-	-	-
346																	
347	**Balances**																
348		**Balances - Base Case**															
349					Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
350					Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079

Bill Impact

2		**Model period ending**					**31 Dec 2033**	**31 Dec 2034**	**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**
4		Financial year ending					2033	2034	2035	2036	2037	2038	2039	2040
6		Model column counter	**Constant**	**Unit**		**Total**	17	18	19	20	21	22	23	24
353		Debt Balance - Funding for Interest					13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
357		Accumulated Interest Balance	-	-	-	-	4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
360		Debt Balance - Funding for Interest					17,312	16,158	15,004	13,850	12,696	11,541	10,387	9,233
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
364		Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	13,524	13,524	13,524	13,524	13,524
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					12,211	11,348	10,441	9,488	8,485	7,432	6,324	5,160
367		Debt Balance - Funding for Interest					4,842	4,842	4,842	4,842	4,842	4,842	4,842	4,842
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	24,402	23,066	21,015	18,860	16,595	14,213	11,710	9,079
371		Accumulated Interest Balance	-	-	-	-	4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					12,211	11,348	10,441	9,488	8,485	7,432	6,324	5,160
374		Debt Balance - Funding for Interest					4,915	4,588	4,260	3,932	3,605	3,277	2,949	2,622

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

Model period ending						**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
Financial year ending						2041	2042	2043	2044	2045	2046	2047	2048
Model column counter	**Constant**	**Unit**		**Total**		25	26	27	28	29	30	31	32
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	152	152	153	154	154	155	156	156
Base Residential Demand						76	76	77	77	77	77	78	78
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	152	152	153	154	154	155	156	156
Residential Demand Sensitivity						76	76	77	77	77	77	78	78
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	-
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
ENERGY Scenario Bill Increase (Savings)						38.77	38.61	38.45	38.29	38.14	37.98	37.82	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
ENERGY Bill Reduction %						19%	19%	19%	19%	19%	18%	18%	0%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	(2,002)	(1,948)	(1,892)	(1,720)	(399)	(375)	(351)	0
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
IR Sensitivity Bill Increase (Savings)						19.79	19.18	18.55	16.79	3.88	3.63	3.39	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
IR Sensitivity Bill Reduction %						10%	9%	9%	8%	2%	2%	2%	0%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Base Residential Demand	-		-	-	-	76	76	77	77	77	77	78	78
OPG Sensitivity Bill Impact						(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
OPG Sensitivity Bill Reduction %						-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%	-0.00%
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	(3,922)	-
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	76	76	77	77	77	77	78	78
Bill Impact after Change in Demand						17.16	17.09	17.01	16.94	16.87	16.80	16.73	0.00
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
Change in Demand Bill Reduction %						8.50%	8.43%	8.36%	8.29%	8.22%	8.15%	8.09%	-0.00%
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	39	39	38	38	38	38	38	-
ENERGY Bill Reduction						241	241	242	243	243	244	245	208
ENERGY Base Residential Bill	-		-	-	-	202	203	204	204	205	206	207	208

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	20	19	19	17	4	4	3	(0)
69					IR Sensitivity Bill					222	222	222	221	209	210	210	208
70																	
71					ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
72					OPG Sensitivity Bill Impact	-	-	-	-	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
73					OPG Sensitivity Bill					219	220	221	221	222	223	224	208
74																	
75					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
76					Bill Impact after Change in Demand	-	-	-	-	17.16	17.09	17.01	16.94	16.87	16.80	16.73	0.00
77					Bill Reduction after Change in Demand					219	220	221	221	222	223	224	208
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
87					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	211	212	212	213	213	214	214	208
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
97					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	210	210	204	204	205	206	207	208
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
103																	
104					Record Here												
105					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
106					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
107					20% ENERGY Bill Reduction					221	221	222	223	224	225	225	208
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
112					IR Sensitivity Bill	-	-	-	-	222	222	222	221	209	210	210	208
113																	
114					Record Here												
115					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
116					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
117					7% Interest Rate					240	238	237	236	235	234	233	208
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
122					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
125					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
126					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
127					30% BP Cost Increase					260	262	264	267	270	275	285	208
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
132					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
133																	
134					Record Here												
135					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
136					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
137					High Gas Price					249	251	252	254	256	258	263	208
138										8.73	9.32	10.04	10.96	12.23	14.22	18.50	(0.00)
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
142					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
143																	
144					Record Here												
145					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
146					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
147					Federal Carbon Prices					242	243	243	244	245	246	247	208
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
152					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
153																	
154					Record Here												
155					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
156					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
157					66.7 cent CAD					244	245	246	247	248	249	252	208
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
162					Bill Reduction after Change in Demand	-	-	-	-	219	220	221	221	222	223	224	208
163																	
164					Record Here												
165					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
166					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
167					Low Demand					250	251	252	253	254	255	258	208
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
172					OPG Sensitivity Bill	-	-	-	-	219	220	221	221	222	223	224	208
173																	
174					Record Here												
175					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
176					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
177					Very High Gas Price					258	260	262	265	268	273	282	208
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
186					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
187					Feb 27 Ministry Scenario	-	-	-	-	219	220	221	221	222	223	224	208
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	241	241	242	243	243	244	245	208
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
196					25% ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	219	220	221	221	222	223	224	208
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	202	203	204	204	205	206	207	208
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	241	241	242	243	243	244	245	208
202					Bill Reduction after Change in Demand	-	-	-	-	219	220	221	221	222	223	224	208
203																	
204					Record Here												
205					ENERGY Base Residential Bill					202	203	204	204	205	206	207	208
206					25% ENERGY Bill Reduction					241	241	242	243	243	244	245	208
207					High Demand					227	227	227	227	227	227	225	207
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
216					6 Years Savings / 25 Year Amortization					5%	5%	4%	4%	4%	4%	3%	0%
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
224					5 Years Savings / 21 Year Amortization					4%	4%	0%	0%	0%	0%	0%	0%
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
232					ENERGY 20% Bill Reduction					9%	9%	9%	9%	9%	9%	9%	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	10%	9%	9%	8%	2%	2%	2%	-0%
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
239					ENERGY 25 % Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
240					7% Interest Rate Sensitivity					19%	18%	17%	15%	14%	13%	12%	0%
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
248					BP 30% Cost Increase					29%	29%	30%	30%	32%	33%	38%	0%
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
256					High Gas Price					24%	24%	24%	24%	25%	25%	27%	-0%
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
264					Federal Carbon Prices					20%	20%	19%	19%	19%	19%	19%	-0%
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
272					66.7 cent CAD					21%	21%	21%	21%	21%	21%	22%	0%
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	8%	8%	8%	8%	8%	8%	8%	-0%
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
280					Low Demand					24%	24%	24%	24%	24%	24%	25%	0%
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
288					Very High Gas Price					28%	28%	29%	30%	31%	32%	36%	-0%
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-

	A	B	C	D	E	F	G	H	I	AH	AI	AJ	AK	AL	AM	AN	AO
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
3																	
4					Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
296					Feb 27 Ministry Scenario					8%	8%	8%	8%	8%	8%	8%	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-	-	-	-	10%	9%	9%	8%	2%	2%	2%	-0%
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
304					Feb 27 Ministry Scenario 7% IR					10%	9%	9%	8%	2%	2%	2%	-0%
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	19%	19%	19%	19%	19%	18%	18%	-
308				enario 15, record below	Change in Demand Bill Reduction %	-	-	-	-	8%	8%	8%	8%	8%	8%	8%	-0%
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					19%	19%	19%	19%	19%	18%	18%	-
312					High Demand					12%	12%	12%	11%	11%	10%	9%	-0%
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-	-	-	-	(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
317					Interest					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
318					Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	0
319					Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
320					Change in GA	-	-	-	-	3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
321					Total New Debt					-	-	-	-	-	-	-	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
325					Interest ($35.7B total)					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
326					Borrowing to Fund Interest ($13.5B total)					-	-	-	-	-	-	-	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
329					Total New Debt ($38.5B total)					-	-	-	-	-	-	-	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	(2,766)	(2,907)	(3,056)	(3,213)	(3,377)	(3,550)	(3,731)	-
333					Interest					(1,156)	(1,015)	(866)	(710)	(545)	(373)	(191)	(0)
334					Borrowing to Fund Interest	-	-	-	-	-	-	-	-	-	-	-	0
335					Borrowing for Rate Reductions	-	-	-	-	-	-	-	-	-	-	-	-
336					Change in GA	-	-	-	-	3,922	3,922	3,922	3,922	3,922	3,922	3,922	-
337					Total New Debt					-	-	-	-	-	-	-	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					(1,224)	(1,286)	(1,352)	(1,421)	(1,494)	(1,571)	(1,651)	-
341					Interest ($20.7B total)					(512)	(449)	(383)	(314)	(241)	(165)	(85)	(0)
342					Borrowing to Fund Interest ($3.9B total)					-	-	-	-	-	-	-	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					1,736	1,736	1,736	1,736	1,736	1,736	1,736	-
345					Total New Debt ($21.9B total)					-	-	-	-	-	-	-	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
350					Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	10,661	7,284	3,734	3	3
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					6,313	3,405	349	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**	**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**
4		Financial year ending					2041	2042	2043	2044	2045	2046	2047	2048
6		Model column counter	**Constant**	**Unit**		**Total**	25	26	27	28	29	30	31	32
353		Debt Balance - Funding for Interest					13,524	13,524	13,524	10,661	7,284	3,734	3	3
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	2,294	1,966	1,638	1,311	983	655	328	(0)
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					6,313	3,405	349	-	-	-	-	-
360		Debt Balance - Funding for Interest					8,079	6,925	5,771	4,617	3,462	2,308	1,154	0
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	13,524	13,524	13,524	10,661	7,284	3,734	3	3
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					3,936	2,649	1,297	-	-	-	-	-
367		Debt Balance - Funding for Interest					4,842	4,842	4,842	4,717	3,223	1,653	2	2
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	6,313	3,405	349	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	2,294	1,966	1,638	1,311	983	655	328	(0)
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					3,936	2,649	1,297	-	-	-	-	-
374		Debt Balance - Funding for Interest					2,294	1,966	1,638	1,311	983	655	328	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

Model period ending						**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
Financial year ending						2049	2050	2051	2052	2053	2054	2055	2056
Model column counter	**Constant**	**Unit**		**Total**		33	34	35	36	37	38	39	40
RPP Share of Consumption	50.00%	%											
Base Electricity Demand	-		-	-	-	157	158	-	-	-	-	-	-
Base Residential Demand						78	79	-	-	-	-	-	-
RPP Share of Consumption	50.00%	%											
Total Electricity Demand	-		-	-	-	157	158	0	0	0	0	0	0
Residential Demand Sensitivity						78	79	-	-	-	-	-	-
ENERGY BASE													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	-	-	-	-	-	-	-	-
Base Residential Demand	-		-	-	-	78	79	-	-	-	-	-	-
ENERGY Scenario Bill Increase (Savings)						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-
ENERGY Bill Reduction %						0%	0%	0%	0%	0%	0%	0%	0%
IR Sensitivity													
Average Household Demand	0.75	MWh											
RPP Cost IR Sensitivity	-		-	-	-	0	0	0	0	0	0	0	0
Base Residential Demand	-		-	-	-	78	79	-	-	-	-	-	-
IR Sensitivity Bill Increase (Savings)						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-
IR Sensitivity Bill Reduction %						0%	0%	0%	0%	0%	0%	0%	0%
OPG SENSITIVITY													
Average Household Demand	0.75	MWh											
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Base Residential Demand	-		-	-	-	78	79	-	-	-	-	-	-
OPG Sensitivity Bill Impact						(0.00)	(0.00)	-	-	-	-	-	-
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-
OPG Sensitivity Bill Reduction %						-0.00%	-0.00%	-	-	-	-	-	-
Sensitivity Incremental to Ministry Scenario?	0	toggle											
OPG Sensitivity Bill Reduction for Charts						0%	0%	0%	0%	0%	0%	0%	0%
DEMAND SENSITIVITY													
Average Household Demand	0.75	MWh											
Annual Ratepayer Borrowing for GA (Repayment)	-		-	-	-	-	-	-	-	-	-	-	-
Total Debt Service	-		-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
RPP Share of Consumption	50.00%	%											
Residential Demand Sensitivity	-		-	-	-	78	79	-	-	-	-	-	-
Bill Impact after Change in Demand						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-
Change in Demand Bill Reduction %						-0.00%	-0.00%	-	-	-	-	-	-
TOTAL BILLS													
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-
ENERGY Scenario Bill Increase (Savings)	-		-	-	-	-	-	-	-	-	-	-	-
ENERGY Bill Reduction						209	210	-	-	-	-	-	-
ENERGY Base Residential Bill	-		-	-	-	209	210	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
68					IR Sensitivity Bill Increase (Savings)	-		-	- -	(0)	(0)	-	-	-	-	-	-
69					IR Sensitivity Bill					209	210	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-		-	- -	(0.00)	(0.00)	-	-	-	-	-	-
73					OPG Sensitivity Bill					209	210	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-		-	- -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					209	210	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-		-	- -	209	210	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-		-	- -	209	210	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
102	enario 2, record below				ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
112					IR Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
117					7% Interest Rate					209	210	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-		-	- -	209	210	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-		-	- -	209	210	-	-	-	-	-	-
122					OPG Sensitivity Bill	-		-	- -	209	210	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
125					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
127					30% BP Cost Increase					209	210	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	209	210	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
137					High Gas Price					209	210	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	209	210	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
147					Federal Carbon Prices					209	210	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	209	210	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
157					66.7 cent CAD					209	210	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	209	210	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
167					Low Demand					209	210	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	209	210	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
177					Very High Gas Price					209	210	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	209	210	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	209	210	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	209	210	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	209	210	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	209	210	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	209	210	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	209	210	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	209	210	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					209	210	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					209	210	-	-	-	-	-	-
207					High Demand					208	209	-	-	-	-	-	-
208																	
209	**% of Bill**																
210	**25% Reduction/6 Year Reduction Chart**																
211	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					0%	0%	-	-	-	-	-	-
217																	
218	**25% Reduction/5 Year Reduction Chart**																
219	enario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					0%	0%	-	-	-	-	-	-
225																	
226	**20% Reduction**																
227	enario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234	**7% Interest Rate**																
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-0%	-0%	-	-	-	-	-	-
237																	
238					Record Here												

Bill Impact

		Model period ending					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
		Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
		Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
		ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
		7% Interest Rate Sensitivity					0%	0%	-	-	-	-	-	-
	BP 30%													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 8, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		BP 30% Cost Increase					0%	0%	-	-	-	-	-	-
	High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 4, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		High Gas Price					-0%	-0%	-	-	-	-	-	-
	Federal CO2 Prices													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 5, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Federal Carbon Prices					-0%	-0%	-	-	-	-	-	-
	Low CAD													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 6, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		66.7 cent CAD					0%	0%	-	-	-	-	-	-
	Low Demand													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 11, record below		Change in Demand Bill Reduction %	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Low Demand					0%	0%	-	-	-	-	-	-
	Double High Gas Price													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario12, record below		OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-0%	-0%	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
		Very High Gas Price					-0%	-0%	-	-	-	-	-	-
	Feb 27 Ministry Scenario													
Scenario 1, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
Scenario 13, record below		ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AP	AQ	AR	AS	AT	AU	AV	AW
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
3																	
4					Financial year ending					2049	2050	2051	2052	2053	2054	2055	2056
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	33	34	35	36	37	38	39	40
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-0%	-0%	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-0%	-0%	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-0%	-0%	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-0%	-0%	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					0	0	0	0	0	0	0	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326					Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					0	0	0	0	0	0	0	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	3	3	3	4	4	4	4	4
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**	**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**
Financial year ending						2049	2050	2051	2052	2053	2054	2055	2056
Model column counter	**Constant**	**Unit**		**Total**		33	34	35	36	37	38	39	40
Debt Balance - Funding for Interest						3	3	3	4	4	4	4	4
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		3	3	3	4	4	4	4	4
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						2	2	2	2	2	3	3	3
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
4		Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
6		Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

Bill Impact

2			**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
4			Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
6			Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
68			IR Sensitivity Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
69			IR Sensitivity Bill					-	-	-	-	-	-	-	-
71			ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
72			OPG Sensitivity Bill Impact	-		-	- -	-	-	-	-	-	-	-	-
73			OPG Sensitivity Bill					-	-	-	-	-	-	-	-
75			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
76			Bill Impact after Change in Demand	-		-	- -	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77			Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
79	**BILL CHARTS**														
80	**25% Reduction/6 Year Reduction Chart**														
81			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
82	enario 1, Record below		ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
83	enario 10 Record below		OPG Sensitivity Bill	-		-	- -	-	-	-	-	-	-	-	-
85			Record Here												
86			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
87			25% ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
88			6 Year Bill Reduction / 25 Year Amortization	-		-	- -	-	-	-	-	-	-	-	-
90	**25% Reduction/5 Year Reduction Chart**														
91			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
92	enario 1, Record below		ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
93	enario 7 Record below		OPG Sensitivity Bill	-		-	- -	-	-	-	-	-	-	-	-
95			Record Here												
96			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
97			25% ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
98			5 Year Bill Reduction / 21 Year Amortization	-		-	- -	-	-	-	-	-	-	-	-
100	**20% Bill Reduction Chart**														
101			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
102	cenario 2, record below		ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
104			Record Here												
105			ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106			25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107			20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
109	**IR Sensitivity Chart**														
110			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
111	ario 9, Record all below		ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
112			IR Sensitivity Bill	-		-	- -	-	-	-	-	-	-	-	-
114			Record Here												
115			ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116			25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117			7% Interest Rate					-	-	-	-	-	-	-	-
119	**Generator Cost Chart**														
120			ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
121	ario 8 Record all below		ENERGY Bill Reduction	-		-	- -	-	-	-	-	-	-	-	-
122			OPG Sensitivity Bill	-		-	- -	-	-	-	-	-	-	-	-
124			Record Here												

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
182	enario 13 Record below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-		- -	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-		- -	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-		- -	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-		- -	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-		- -	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-		- -	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	cenario 1, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-		- -	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	cenario 1, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-		- -	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	cenario 2, record below				ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-		- -	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	Scenario 8, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	Scenario 4, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	Scenario 5, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	Scenario 6, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	Scenario 11, record below				Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	Scenario12, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291	Scenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	Scenario 13, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	AX	AY	AZ	BA	BB	BC	BD	BE
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
3																	
4					Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					0	0	0	0	0	0	0	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326					Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					0	0	0	0	0	0	0	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	5	5	5	5	6	6	6	7
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

2		**Model period ending**					**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**	**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**
4		Financial year ending					2057	2058	2059	2060	2061	2062	2063	2064
6		Model column counter	**Constant**	**Unit**		**Total**	41	42	43	44	45	46	47	48
353		Debt Balance - Funding for Interest					5	5	5	5	6	6	6	7
355	**Balances - IR Sensitivity**													
356		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
358		Record Here												
359		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
360		Debt Balance - Funding for Interest					0	0	0	0	0	0	0	0
362	**Balances - Feb 27 Base Case**													
363		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	5	5	5	5	6	6	6	7
365		Record Here												
366		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
367		Debt Balance - Funding for Interest					3	3	3	3	4	4	4	4
369	**Balances - Feb 27 IR Sensitivity**													
370		Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
372		Record Here												
373		Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
374		Debt Balance - Funding for Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
2		**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
4		Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
6		Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
		Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
		Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
		IR Sensitivity Bill					-	-	-	-	-	-	-	-
		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
	BILL CHARTS													
	25% Reduction/6 Year Reduction Chart													
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
	25% Reduction/5 Year Reduction Chart													
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
	20% Bill Reduction Chart													
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
	IR Sensitivity Chart													
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												
		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
		7% Interest Rate					-	-	-	-	-	-	-	-
	Generator Cost Chart													
		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
		Record Here												

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	cenario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	cenario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BF	BG	BH	BI	BJ	BK	BL	BM
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
3																	
4					Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
318					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					0	0	0	0	0	0	0	0
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
326					Borrowing to Fund Interest ($13.5B total)					0	0	0	0	0	0	0	0
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					0	0	0	0	0	0	0	0
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
334					Borrowing to Fund Interest	-		-	-	0	0	0	0	0	0	0	0
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					0	0	0	0	0	0	0	0
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	7	7	8	8	8	9	9	10
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

								BF	BG	BH	BI	BJ	BK	BL	BM
2			**Model period ending**					**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**	**31 Dec 2071**	**31 Dec 2072**
4			Financial year ending					2065	2066	2067	2068	2069	2070	2071	2072
6			Model column counter	**Constant**	**Unit**		**Total**	49	50	51	52	53	54	55	56
353			Debt Balance - Funding for Interest					7	7	8	8	8	9	9	10
355	**Balances - IR Sensitivity**														
356			Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
357			Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
358			Record Here												
359			Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
360			Debt Balance - Funding for Interest					0	0	0	0	0	0	0	0
362	**Balances - Feb 27 Base Case**														
363			Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
364			Accumulated Interest Balance	-	-	-	-	7	7	8	8	8	9	9	10
365			Record Here												
366			Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
367			Debt Balance - Funding for Interest					4	5	5	5	5	6	6	6
369	**Balances - Feb 27 IR Sensitivity**														
370			Principle Balance	-	-	-	-	-	-	-	-	-	-	-	-
371			Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
372			Record Here												
373			Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-
374			Debt Balance - Funding for Interest					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
2		**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
4		Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
6		Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53		Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BN	BO	BP	BQ	BR	BS	BT	BU
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
3																	
4					Financial year ending					2073	2074	2075	2076	2077	2078	2079	2080
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	57	58	59	60	61	62	63	64
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	1	1
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	1	1
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	1	1
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	1	1
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
342					Borrowing to Fund Interest ($3.9B total)					0	0	0	0	0	0	0	0
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	0	0	0	0	0	0	0
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	10	11	11	12	13	13	14	15
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**	**31 Dec 2080**
Financial year ending						2073	2074	2075	2076	2077	2078	2079	2080
Model column counter	**Constant**	**Unit**		**Total**		57	58	59	60	61	62	63	64
Debt Balance - Funding for Interest						10	11	11	12	13	13	14	15
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		10	11	11	12	13	13	14	15
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						7	7	7	8	8	8	9	9
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4		Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
6		Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	enario 8, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	enario 4, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	enario 5, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	enario 6, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	enario 11, record below				Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	enario12, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	nario 13, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BV	BW	BX	BY	BZ	CA	CB	CC
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																	
4					Financial year ending					2081	2082	2083	2084	2085	2086	2087	2088
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	65	66	67	68	69	70	71	72
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	1	1
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	1	1
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	1	1
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	1	1
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	1	1
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
342					Borrowing to Fund Interest ($3.9B total)					0	1	1	1	1	1	1	1
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					0	1	1	1	1	1	1	1
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	15	16	17	18	19	20	21	22
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
Financial year ending						2081	2082	2083	2084	2085	2086	2087	2088
Model column counter	**Constant**	**Unit**		**Total**		65	66	67	68	69	70	71	72
Debt Balance - Funding for Interest						15	16	17	18	19	20	21	22
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		15	16	17	18	19	20	21	22
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						10	10	11	11	12	13	13	14
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
4		Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
6		Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

Bill Impact

	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
2		**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
4		Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
6		Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
124		Record Here												

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**													
2		**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3														
4		Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5														
6		Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80
239		ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240		7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241														
242	**BP 30%**													
243	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245														
246		Record Here												
247		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248		BP 30% Cost Increase					-	-	-	-	-	-	-	-
249														
250	**High Gas Price**													
251	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253														
254		Record Here												
255		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256		High Gas Price					-	-	-	-	-	-	-	-
257														
258	**Federal CO2 Prices**													
259	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261														
262		Record Here												
263		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264		Federal Carbon Prices					-	-	-	-	-	-	-	-
265														
266	**Low CAD**													
267	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269														
270		Record Here												
271		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272		66.7 cent CAD					-	-	-	-	-	-	-	-
273														
274	**Low Demand**													
275	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277														
278		Record Here												
279		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280		Low Demand					-	-	-	-	-	-	-	-
281														
282	**Double High Gas Price**													
283	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285														
286		Record Here												
287		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288		Very High Gas Price					-	-	-	-	-	-	-	-
289														
290	**Feb 27 Ministry Scenario**													
291	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293														
294		Record Here												
295		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
3																	
4					Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	73	74	75	76	77	78	79	80
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				Scenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				Scenario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				Scenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				Scenario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
318					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	2	2
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					1	1	1	1	1	1	2	2
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
326					Borrowing to Fund Interest ($13.5B total)					1	1	1	1	1	1	2	2
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					1	1	1	1	1	1	2	2
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(1)	(1)	(1)	(1)	(1)	(1)	(2)	(2)
334					Borrowing to Fund Interest	-		-	-	1	1	1	1	1	1	2	2
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					1	1	1	1	1	1	2	2
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
342					Borrowing to Fund Interest ($3.9B total)					1	1	1	1	1	1	1	1
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					1	1	1	1	1	1	1	1
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	23	24	25	27	28	29	31	33
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**
Financial year ending						2089	2090	2091	2092	2093	2094	2095	2096
Model column counter	**Constant**	**Unit**		**Total**		73	74	75	76	77	78	79	80
Debt Balance - Funding for Interest						23	24	25	27	28	29	31	33
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		23	24	25	27	28	29	31	33
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						15	15	16	17	18	19	20	21
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

2		**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
4		Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
6		Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
		Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
		Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
124		Record Here												

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	enario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	enario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**													
2		**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3														
4		Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5														
6		Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
239		ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240		7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241														
242	**BP 30%**													
243	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245														
246		Record Here												
247		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248		BP 30% Cost Increase					-	-	-	-	-	-	-	-
249														
250	**High Gas Price**													
251	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253														
254		Record Here												
255		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256		High Gas Price					-	-	-	-	-	-	-	-
257														
258	**Federal CO2 Prices**													
259	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261														
262		Record Here												
263		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264		Federal Carbon Prices					-	-	-	-	-	-	-	-
265														
266	**Low CAD**													
267	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269														
270		Record Here												
271		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272		66.7 cent CAD					-	-	-	-	-	-	-	-
273														
274	**Low Demand**													
275	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277														
278		Record Here												
279		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280		Low Demand					-	-	-	-	-	-	-	-
281														
282	**Double High Gas Price**													
283	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285														
286		Record Here												
287		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288		Very High Gas Price					-	-	-	-	-	-	-	-
289														
290	**Feb 27 Ministry Scenario**													
291	cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293														
294		Record Here												
295		ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CL	CM	CN	CO	CP	CQ	CR	CS
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
3																	
4					Financial year ending					2097	2098	2099	2100	2101	2102	2103	2104
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	81	82	83	84	85	86	87	88
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
318					Borrowing to Fund Interest	-		-	-	2	2	2	2	2	2	2	2
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					2	2	2	2	2	2	2	2
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
326					Borrowing to Fund Interest ($13.5B total)					2	2	2	2	2	2	2	2
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					2	2	2	2	2	2	2	2
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
334					Borrowing to Fund Interest	-		-	-	2	2	2	2	2	2	2	2
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					2	2	2	2	2	2	2	2
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
342					Borrowing to Fund Interest ($3.9B total)					1	1	1	1	1	1	1	2
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					1	1	1	1	1	1	1	2
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	34	36	38	40	42	44	46	48
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2097**	**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**
Financial year ending						2097	2098	2099	2100	2101	2102	2103	2104
Model column counter	**Constant**	**Unit**		**Total**		81	82	83	84	85	86	87	88
Debt Balance - Funding for Interest						34	36	38	40	42	44	46	48
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		34	36	38	40	42	44	46	48
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						22	23	24	25	27	28	29	31
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

Bill Impact

	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
2		**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
4		Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
6		Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
12		RPP Share of Consumption	50.00%	%										
13		Base Electricity Demand	-		-	- -	-	-	-	-	-	-	-	-
14		Base Residential Demand					-	-	-	-	-	-	-	-
16		RPP Share of Consumption	50.00%	%										
17		Total Electricity Demand	-		-	- -	0	0	0	0	0	0	0	0
18		Residential Demand Sensitivity					-	-	-	-	-	-	-	-
20	**ENERGY BASE**													
21		Average Household Demand	0.75	MWh										
22		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
23		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
24		ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
27		ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
29	**IR Sensitivity**													
30		Average Household Demand	0.75	MWh										
31		RPP Cost IR Sensitivity	-		-	- -	0	0	0	0	0	0	0	0
32		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
33		IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
36		IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
38	**OPG SENSITIVITY**													
39		Average Household Demand	0.75	MWh										
40		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41		Base Residential Demand	-		-	- -	-	-	-	-	-	-	-	-
42		OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
44		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
45		OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
47		Sensitivity Incremental to Ministry Scenario?	0	toggle										
48		OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
50	**DEMAND SENSITIVITY**													
51		Average Household Demand	0.75	MWh										
52		Annual Ratepayer Borrowing for GA (Repayment)	-		-	- -	-	-	-	-	-	-	-	-
53		Total Debt Service	-		-	- -	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54		RPP Share of Consumption	50.00%	%										
55		Residential Demand Sensitivity	-		-	- -	-	-	-	-	-	-	-	-
56		Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
59		Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
62	**TOTAL BILLS**													
63		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-
64		ENERGY Scenario Bill Increase (Savings)	-		-	- -	-	-	-	-	-	-	-	-
65		ENERGY Bill Reduction					-	-	-	-	-	-	-	-
67		ENERGY Base Residential Bill	-		-	- -	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-	-	-	-	-	-
70																	
71					ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74																	
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78																	
79	**BILL CHARTS**																
80	**25% Reduction/6 Year Reduction Chart**																
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84																	
85					Record Here												
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89																	
90	**25% Reduction/5 Year Reduction Chart**																
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94																	
95					Record Here												
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99																	
100	**20% Bill Reduction Chart**																
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103																	
104					Record Here												
105					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107					20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108																	
109	**IR Sensitivity Chart**																
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113																	
114					Record Here												
115					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117					7% Interest Rate					-	-	-	-	-	-	-	-
118																	
119	**Generator Cost Chart**																
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123																	
124					Record Here												

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
182	enario 13 Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	cenario 2, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244	enario 8, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252	enario 4, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260	enario 5, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268	enario 6, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276	enario 11, record below				Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284	enario12, record below				OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291	cenario 1, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292	nario 13, record below				ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
3																	
4					Financial year ending					2105	2106	2107	2108	2109	2110	2111	2112
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	89	90	91	92	93	94	95	96
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
318					Borrowing to Fund Interest	-		-	-	2	3	3	3	3	3	3	4
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					2	3	3	3	3	3	3	4
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
326					Borrowing to Fund Interest ($13.5B total)					2	3	3	3	3	3	3	4
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					2	3	3	3	3	3	3	4
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)
334					Borrowing to Fund Interest	-		-	-	2	3	3	3	3	3	3	4
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					2	3	3	3	3	3	3	4
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
342					Borrowing to Fund Interest ($3.9B total)					2	2	2	2	2	2	2	2
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					2	2	2	2	2	2	2	2
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	51	54	56	59	62	65	69	72
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2105**	**31 Dec 2106**	**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**
Financial year ending						2105	2106	2107	2108	2109	2110	2111	2112
Model column counter	**Constant**	**Unit**		**Total**		89	90	91	92	93	94	95	96
Debt Balance - Funding for Interest						51	54	56	59	62	65	69	72
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		51	54	56	59	62	65	69	72
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						32	34	36	38	40	42	44	46
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
11																	
12					RPP Share of Consumption	50.00%	%										
13					Base Electricity Demand	-	-	-	-	-	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-	-	-	-	-	-
15																	
16					RPP Share of Consumption	50.00%	%										
17					Total Electricity Demand	-	-	-	-	0	0	0	0	0	0	0	0
18					Residential Demand Sensitivity					-	-	-	-	-	-	-	-
19																	
20	**ENERGY BASE**																
21					Average Household Demand	0.75	MWh										
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25																	
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
28																	
29	**IR Sensitivity**																
30					Average Household Demand	0.75	MWh										
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0	0	0	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34																	
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%	0%	0%	0%	0%	0%
37																	
38	**OPG SENSITIVITY**																
39					Average Household Demand	0.75	MWh										
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-	-	-	-	-	-
43																	
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-	-	-	-	-	-
46																	
47					Sensitivity Incremental to Ministry Scenario?	0	toggle										
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%	0%	0%	0%	0%	0%
49																	
50	**DEMAND SENSITIVITY**																
51					Average Household Demand	0.75	MWh										
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%										
55					Residential Demand Sensitivity	-	-	-	-	-	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57																	
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-	-	-	-	-	-
60																	
61																	
62	**TOTAL BILLS**																
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-	-	-	-	-	-
66																	
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-

Bill Impact

		Model period ending					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
		Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
		Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
68		IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-	-	-	-	-	-
69		IR Sensitivity Bill					-	-	-	-	-	-	-	-
70														
71		ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
72		OPG Sensitivity Bill Impact	-	-	-	-	-	-	-	-	-	-	-	-
73		OPG Sensitivity Bill					-	-	-	-	-	-	-	-
74														
75		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
76		Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77		Bill Reduction after Change in Demand					-	-	-	-	-	-	-	-
78														
79	**BILL CHARTS**													
80	**25% Reduction/6 Year Reduction Chart**													
81		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
82	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
83	enario 10 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
84														
85		Record Here												
86		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
87		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
88		6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
89														
90	**25% Reduction/5 Year Reduction Chart**													
91		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
92	enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
93	enario 7 Record below	OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
94														
95		Record Here												
96		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
97		25% ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
98		5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-	-	-	-	-	-
99														
100	**20% Bill Reduction Chart**													
101		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
102	enario 2, record below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
103														
104		Record Here												
105		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
106		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
107		20% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
108														
109	**IR Sensitivity Chart**													
110		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
111	ario 9, Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
112		IR Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
113														
114		Record Here												
115		ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
116		25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
117		7% Interest Rate					-	-	-	-	-	-	-	-
118														
119	**Generator Cost Chart**													
120		ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
121	ario 8 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
122		OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
123														
124		Record Here												

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
125					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
126					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
127					30% BP Cost Increase					-	-	-	-	-	-	-	-
128																	
129	**High Gas Price Chart**																
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
133																	
134					Record Here												
135					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
136					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
137					High Gas Price					-	-	-	-	-	-	-	-
138																	
139	**Carbon Price**																
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
143																	
144					Record Here												
145					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
146					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
147					Federal Carbon Prices					-	-	-	-	-	-	-	-
148																	
149	**Low CAD**																
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
153																	
154					Record Here												
155					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
156					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
157					66.7 cent CAD					-	-	-	-	-	-	-	-
158																	
159	**Low Demand**																
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-	-	-	-	-	-
163																	
164					Record Here												
165					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
166					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
167					Low Demand					-	-	-	-	-	-	-	-
168																	
169	**High Gas Price Chart**																
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-	-	-	-	-	-
173																	
174					Record Here												
175					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
176					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
177					Very High Gas Price					-	-	-	-	-	-	-	-
178																	
179	**Feb 27 Ministry Scenario**																
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
182	enario 13 Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
183																	
184					Record Here												
185					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-		-	-	-	-	-	-	-	-	-	-
188																	
189	**Feb 27 Ministry Scenario 7% IR**																
190					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
191	enario 1, Record below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
192	enario 14 Record below				IR Sensitivity Bill	-		-	-	-	-	-	-	-	-	-	-
193																	
194					Record Here												
195					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-		-	-	-	-	-	-	-	-	-	-
198																	
199	**High Demand**																
200					ENERGY Base Residential Bill	-		-	-	-	-	-	-	-	-	-	-
201	rio 15 Record all below				ENERGY Bill Reduction	-		-	-	-	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-		-	-	-	-	-	-	-	-	-	-
203																	
204					Record Here												
205					ENERGY Base Residential Bill					-	-	-	-	-	-	-	-
206					25% ENERGY Bill Reduction					-	-	-	-	-	-	-	-
207					High Demand					-	-	-	-	-	-	-	-
208																	
209	**% of Bill**																
210		**25% Reduction/6 Year Reduction Chart**															
211	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
212	nario 10, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
213																	
214					Record Here												
215					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-	-	-	-	-	-
217																	
218		**25% Reduction/5 Year Reduction Chart**															
219	cenario 1, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
220	enario 7, record below				OPG Sensitivity Bill Reduction for Charts	-		-	-	-	-	-	-	-	-	-	-
221																	
222					Record Here												
223					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-	-	-	-	-	-
225																	
226		**20% Reduction**															
227	cenario 2, record below				ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
228																	
229																	
230					Record Here												
231					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
232					ENERGY 20% Bill Reduction					-	-	-	-	-	-	-	-
233																	
234		**7% Interest Rate**															
235					ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
237																	
238					Record Here												

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
239					ENERGY 25 % Bill Reduction					-	-	-	-	-	-	-	-
240					7% Interest Rate Sensitivity					-	-	-	-	-	-	-	-
241																	
242				**BP 30%**													
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
245																	
246					Record Here												
247					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
248					BP 30% Cost Increase					-	-	-	-	-	-	-	-
249																	
250				**High Gas Price**													
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
253																	
254					Record Here												
255					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
256					High Gas Price					-	-	-	-	-	-	-	-
257																	
258				**Federal CO2 Prices**													
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
261																	
262					Record Here												
263					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
264					Federal Carbon Prices					-	-	-	-	-	-	-	-
265																	
266				**Low CAD**													
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
269																	
270					Record Here												
271					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
272					66.7 cent CAD					-	-	-	-	-	-	-	-
273																	
274				**Low Demand**													
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
277																	
278					Record Here												
279					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
280					Low Demand					-	-	-	-	-	-	-	-
281																	
282				**Double High Gas Price**													
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-	-	-	-	-	-
285																	
286					Record Here												
287					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
288					Very High Gas Price					-	-	-	-	-	-	-	-
289																	
290				**Feb 27 Ministry Scenario**													
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-	-	-	-	-	-
293																	
294					Record Here												
295					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DB	DC	DD	DE	DF	DG	DH	DI
1	**Bill Impact**																
2					**Model period ending**					**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
3																	
4					Financial year ending					2113	2114	2115	2116	2117	2118	2119	2120
5																	
6					Model column counter	**Constant**	**Unit**		**Total**	97	98	99	100	101	102	103	104
296					Feb 27 Ministry Scenario					-	-	-	-	-	-	-	-
297																	
298				**Feb 27 Ministry Scenario 7% IR**													
299				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
300				nario 14, record below	IR Sensitivity Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
301																	
302					Record Here												
303					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-	-	-	-	-	-
305																	
306				**High Demand**													
307				cenario 1, record below	ENERGY Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
308				enario 15, record below	Change in Demand Bill Reduction %	-		-	-	-	-	-	-	-	-	-	-
309																	
310					Record Here												
311					ENERGY 25% Bill Reduction					-	-	-	-	-	-	-	-
312					High Demand					-	-	-	-	-	-	-	-
313																	
314	**Debt Cash Flows**																
315				**CF Base Case**													
316					Principle Repayment	-		-	-	-	-	-	-	-	-	-	-
317					Interest					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
318					Borrowing to Fund Interest	-		-	-	4	4	4	4	5	5	5	5
319					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
320					Change in GA	-		-	-	-	-	-	-	-	-	-	-
321					Total New Debt					4	4	4	4	5	5	5	5
322																	
323					Record Here												
324					Principle Repayment ($38.5B total)					-	-	-	-	-	-	-	-
325					Interest ($35.7B total)					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
326					Borrowing to Fund Interest ($13.5B total)					4	4	4	4	5	5	5	5
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-	-	-	-	-	-
328					Change in GA					-	-	-	-	-	-	-	-
329					Total New Debt ($38.5B total)					4	4	4	4	5	5	5	5
330																	
331				**CF Feb 27**													
332					Principle Repayment	-	toggle		-	-	-	-	-	-	-	-	-
333					Interest					(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)
334					Borrowing to Fund Interest	-		-	-	4	4	4	4	5	5	5	5
335					Borrowing for Rate Reductions	-		-	-	-	-	-	-	-	-	-	-
336					Change in GA	-		-	-	-	-	-	-	-	-	-	-
337					Total New Debt					4	4	4	4	5	5	5	5
338																	
339					Record Here												
340					Principle Repayment ($21.9B total)					-	-	-	-	-	-	-	-
341					Interest ($20.7B total)					(2)	(2)	(3)	(3)	(3)	(3)	(3)	(3)
342					Borrowing to Fund Interest ($3.9B total)					2	2	3	3	3	3	3	3
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-	-	-	-	-	-
344					Change in GA					-	-	-	-	-	-	-	-
345					Total New Debt ($21.9B total)					2	2	3	3	3	3	3	3
346																	
347	**Balances**																
348				**Balances - Base Case**													
349					Principle Balance	-		-	-	-	-	-	-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	76	80	84	88	93	97	102	108
351					Record Here												
352					Debt Balance - Funding for Rate Reductions					-	-	-	-	-	-	-	-

Bill Impact

Model period ending						**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**	**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**
Financial year ending						2113	2114	2115	2116	2117	2118	2119	2120
Model column counter	**Constant**	**Unit**		**Total**		97	98	99	100	101	102	103	104
Debt Balance - Funding for Interest						76	80	84	88	93	97	102	108
Balances - IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						0	0	0	0	0	0	0	0
Balances - Feb 27 Base Case													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		76	80	84	88	93	97	102	108
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						48	51	53	56	59	62	65	69
Balances - Feb 27 IR Sensitivity													
Principle Balance	-	-	-	-		-	-	-	-	-	-	-	-
Accumulated Interest Balance	-	-	-	-		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Record Here													
Debt Balance - Funding for Rate Reductions						-	-	-	-	-	-	-	-
Debt Balance - Funding for Interest						(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	ENERGY Base	IR Sensitivity
Total Borrowing for Rate Reductions	24,977	24,977
Total Borrowing to Fund Interest	13,524	20,775
Total Debt	38,501	45,751
Total Interest Paid (Cost for Deferral Program)	35,664	28,660

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**		**Total**	105	106	107
11												
12					RPP Share of Consumption	50.00%	%					
13					Base Electricity Demand	-	-	-	-	-	-	-
14					Base Residential Demand					-	-	-
15												
16					RPP Share of Consumption	50.00%	%					
17					Total Electricity Demand	-	-	-	-	0	0	0
18					Residential Demand Sensitivity					-	-	-
19												
20	**ENERGY BASE**											
21					Average Household Demand	0.75	MWh					
22					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-
23					Base Residential Demand	-	-	-	-	-	-	-
24					ENERGY Scenario Bill Increase (Savings)					0.00	0.00	0.00
25												
26					ENERGY Base Residential Bill	-	-	-	-	-	-	-
27					ENERGY Bill Reduction %					0%	0%	0%
28												
29	**IR Sensitivity**											
30					Average Household Demand	0.75	MWh					
31					RPP Cost IR Sensitivity	-	-	-	-	0	0	0
32					Base Residential Demand	-	-	-	-	-	-	-
33					IR Sensitivity Bill Increase (Savings)					0.00	0.00	0.00
34												
35					ENERGY Base Residential Bill	-	-	-	-	-	-	-
36					IR Sensitivity Bill Reduction %					0%	0%	0%
37												
38	**OPG SENSITIVITY**											
39					Average Household Demand	0.75	MWh					
40					Total Debt Service	-	-	-	-	(0)	(0)	(0)
41					Base Residential Demand	-	-	-	-	-	-	-
42					OPG Sensitivity Bill Impact					-	-	-
43												
44					ENERGY Base Residential Bill	-	-	-	-	-	-	-
45					OPG Sensitivity Bill Reduction %					-	-	-
46												
47					Sensitivity Incremental to Ministry Scenario?	0	toggle					
48					OPG Sensitivity Bill Reduction for Charts					0%	0%	0%
49												
50	**DEMAND SENSITIVITY**											
51					Average Household Demand	0.75	MWh					
52					Annual Ratepayer Borrowing for GA (Repayment)	-	-	-	-	-	-	-
53					Total Debt Service	-	-	-	-	(0)	(0)	(0)
54					RPP Share of Consumption	50.00%	%					
55					Residential Demand Sensitivity	-	-	-	-	-	-	-
56					Bill Impact after Change in Demand					0.00	0.00	0.00
57												
58					ENERGY Base Residential Bill	-	-	-	-	-	-	-
59					Change in Demand Bill Reduction %					-	-	-
60												
61												
62	**TOTAL BILLS**											
63					ENERGY Base Residential Bill	-	-	-	-	-	-	-
64					ENERGY Scenario Bill Increase (Savings)	-	-	-	-	-	-	-
65					ENERGY Bill Reduction					-	-	-
66												
67					ENERGY Base Residential Bill	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
68					IR Sensitivity Bill Increase (Savings)	-	-	-	-	-	-	-
69					IR Sensitivity Bill					-	-	-
70												
71					ENERGY Bill Reduction	-	-	-	-	-	-	-
72					OPG Sensitivity Bill Impact	-	-	-	-	-	-	-
73					OPG Sensitivity Bill					-	-	-
74												
75					ENERGY Base Residential Bill	-	-	-	-	-	-	-
76					Bill Impact after Change in Demand	-	-	-	-	0.00	0.00	0.00
77					Bill Reduction after Change in Demand					-	-	-
78												
79	**BILL CHARTS**											
80	**25% Reduction/6 Year Reduction Chart**											
81					ENERGY Base Residential Bill	-	-	-	-	-	-	-
82	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
83	enario 10 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-
84												
85					Record Here							
86					ENERGY Base Residential Bill	-	-	-	-	-	-	-
87					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
88					6 Year Bill Reduction / 25 Year Amortization	-	-	-	-	-	-	-
89												
90	**25% Reduction/5 Year Reduction Chart**											
91					ENERGY Base Residential Bill	-	-	-	-	-	-	-
92	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
93	enario 7 Record below				OPG Sensitivity Bill	-	-	-	-	-	-	-
94												
95					Record Here							
96					ENERGY Base Residential Bill	-	-	-	-	-	-	-
97					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
98					5 Year Bill Reduction / 21 Year Amortization	-	-	-	-	-	-	-
99												
100	**20% Bill Reduction Chart**											
101					ENERGY Base Residential Bill	-	-	-	-	-	-	-
102	cenario 2, record below				ENERGY Bill Reduction	-	-	-	-	-	-	-
103												
104					Record Here							
105					ENERGY Base Residential Bill					-	-	-
106					25% ENERGY Bill Reduction					-	-	-
107					20% ENERGY Bill Reduction					-	-	-
108												
109	**IR Sensitivity Chart**											
110					ENERGY Base Residential Bill	-	-	-	-	-	-	-
111	ario 9, Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
112					IR Sensitivity Bill	-	-	-	-	-	-	-
113												
114					Record Here							
115					ENERGY Base Residential Bill					-	-	-
116					25% ENERGY Bill Reduction					-	-	-
117					7% Interest Rate					-	-	-
118												
119	**Generator Cost Chart**											
120					ENERGY Base Residential Bill	-	-	-	-	-	-	-
121	ario 8 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
122					OPG Sensitivity Bill	-	-	-	-	-	-	-
123												
124					Record Here							

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
125					ENERGY Base Residential Bill					-	-	-
126					25% ENERGY Bill Reduction					-	-	-
127					30% BP Cost Increase					-	-	-
128												
129	**High Gas Price Chart**											
130					ENERGY Base Residential Bill	-	-	-	-	-	-	-
131	ario 4 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
132					OPG Sensitivity Bill	-	-	-	-	-	-	-
133												
134					Record Here							
135					ENERGY Base Residential Bill					-	-	-
136					25% ENERGY Bill Reduction					-	-	-
137					High Gas Price					-	-	-
138												
139	**Carbon Price**											
140					ENERGY Base Residential Bill	-	-	-	-	-	-	-
141	ario 5 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
142					OPG Sensitivity Bill	-	-	-	-	-	-	-
143												
144					Record Here							
145					ENERGY Base Residential Bill					-	-	-
146					25% ENERGY Bill Reduction					-	-	-
147					Federal Carbon Prices					-	-	-
148												
149	**Low CAD**											
150					ENERGY Base Residential Bill	-	-	-	-	-	-	-
151	nario6 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
152					OPG Sensitivity Bill	-	-	-	-	-	-	-
153												
154					Record Here							
155					ENERGY Base Residential Bill					-	-	-
156					25% ENERGY Bill Reduction					-	-	-
157					66.7 cent CAD					-	-	-
158												
159	**Low Demand**											
160					ENERGY Base Residential Bill	-	-	-	-	-	-	-
161	rio 11 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
162					Bill Reduction after Change in Demand	-	-	-	-	-	-	-
163												
164					Record Here							
165					ENERGY Base Residential Bill					-	-	-
166					25% ENERGY Bill Reduction					-	-	-
167					Low Demand					-	-	-
168												
169	**High Gas Price Chart**											
170					ENERGY Base Residential Bill	-	-	-	-	-	-	-
171	rio 12 Record all below				ENERGY Bill Reduction	-	-	-	-	-	-	-
172					OPG Sensitivity Bill	-	-	-	-	-	-	-
173												
174					Record Here							
175					ENERGY Base Residential Bill					-	-	-
176					25% ENERGY Bill Reduction					-	-	-
177					Very High Gas Price					-	-	-
178												
179	**Feb 27 Ministry Scenario**											
180					ENERGY Base Residential Bill	-	-	-	-	-	-	-
181	enario 1, Record below				ENERGY Bill Reduction	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
182				enario 13 Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-
183												
184					Record Here							
185					ENERGY Base Residential Bill	-	-	-	-	-	-	-
186					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
187					Feb 27 Ministry Scenario	-	-	-	-	-	-	-
188												
189	**Feb 27 Ministry Scenario 7% IR**											
190					ENERGY Base Residential Bill	-	-	-	-	-	-	-
191				enario 1, Record below	ENERGY Bill Reduction	-	-	-	-	-	-	-
192				enario 14 Record below	IR Sensitivity Bill	-	-	-	-	-	-	-
193												
194					Record Here							
195					ENERGY Base Residential Bill	-	-	-	-	-	-	-
196					25% ENERGY Bill Reduction	-	-	-	-	-	-	-
197					Feb 27 Ministry Scenario 7% IR	-	-	-	-	-	-	-
198												
199	**High Demand**											
200					ENERGY Base Residential Bill	-	-	-	-	-	-	-
201				rio 15 Record all below	ENERGY Bill Reduction	-	-	-	-	-	-	-
202					Bill Reduction after Change in Demand	-	-	-	-	-	-	-
203												
204					Record Here							
205					ENERGY Base Residential Bill					-	-	-
206					25% ENERGY Bill Reduction					-	-	-
207					High Demand					-	-	-
208												
209	**% of Bill**											
210				**25% Reduction/6 Year Reduction Chart**								
211				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
212				nario 10, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
213												
214					Record Here							
215					ENERGY 25% Bill Reduction					-	-	-
216					6 Years Savings / 25 Year Amortization					-	-	-
217												
218				**25% Reduction/5 Year Reduction Chart**								
219				enario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
220				enario 7, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
221												
222					Record Here							
223					ENERGY 25% Bill Reduction					-	-	-
224					5 Years Savings / 21 Year Amortization					-	-	-
225												
226				**20% Reduction**								
227				enario 2, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
228												
229												
230					Record Here							
231					ENERGY 25% Bill Reduction					-	-	-
232					ENERGY 20% Bill Reduction					-	-	-
233												
234				**7% Interest Rate**								
235					ENERGY Bill Reduction %	-	-	-	-	-	-	-
236					IR Sensitivity Bill Reduction %	-	-	-	-	-	-	-
237												
238					Record Here							

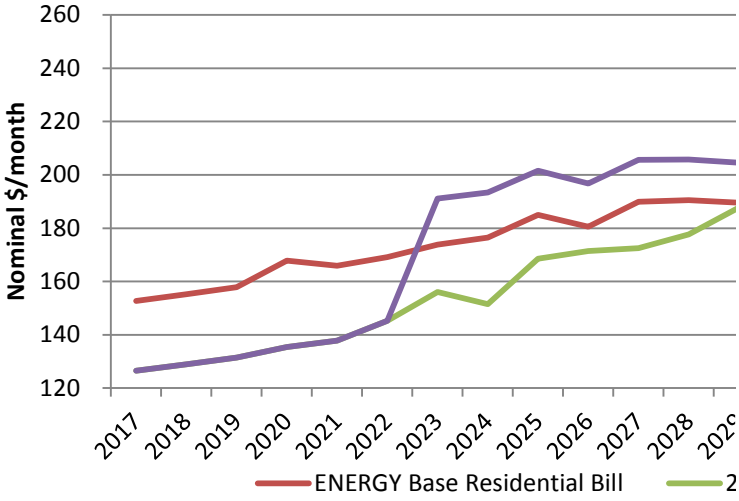
	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**	**Total**		105	106	107
239					ENERGY 25 % Bill Reduction					-	-	-
240					7% Interest Rate Sensitivity					-	-	-
241												
242				**BP 30%**								
243				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
244				enario 8, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
245												
246					Record Here							
247					ENERGY 25% Bill Reduction					-	-	-
248					BP 30% Cost Increase					-	-	-
249												
250				**High Gas Price**								
251				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
252				enario 4, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
253												
254					Record Here							
255					ENERGY 25% Bill Reduction					-	-	-
256					High Gas Price					-	-	-
257												
258				**Federal CO2 Prices**								
259				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
260				enario 5, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
261												
262					Record Here							
263					ENERGY 25% Bill Reduction					-	-	-
264					Federal Carbon Prices					-	-	-
265												
266				**Low CAD**								
267				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
268				enario 6, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
269												
270					Record Here							
271					ENERGY 25% Bill Reduction					-	-	-
272					66.7 cent CAD					-	-	-
273												
274				**Low Demand**								
275				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
276				enario 11, record below	Change in Demand Bill Reduction %	-	-	-	-	-	-	-
277												
278					Record Here							
279					ENERGY 25% Bill Reduction					-	-	-
280					Low Demand					-	-	-
281												
282				**Double High Gas Price**								
283				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
284				enario12, record below	OPG Sensitivity Bill Reduction for Charts	-	-	-	-	-	-	-
285												
286					Record Here							
287					ENERGY 25% Bill Reduction					-	-	-
288					Very High Gas Price					-	-	-
289												
290				**Feb 27 Ministry Scenario**								
291				cenario 1, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
292				nario 13, record below	ENERGY Bill Reduction %	-	-	-	-	-	-	-
293												
294					Record Here							
295					ENERGY 25% Bill Reduction					-	-	-

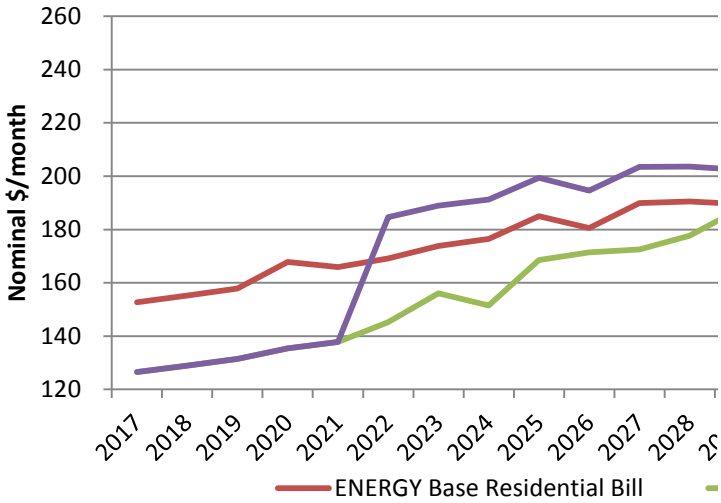
	A	B	C	D	E	F	G	H	I	DJ	DK	DL
1	**Bill Impact**											
2					**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
3												
4					Financial year ending					2121	2122	2123
5												
6					Model column counter	**Constant**	**Unit**		**Total**	105	106	107
296					Feb 27 Ministry Scenario					-	-	-
297												
298		**Feb 27 Ministry Scenario 7% IR**										
299			cenario 1, record below		ENERGY Bill Reduction %	-		-	-	-	-	-
300			nario 14, record below		IR Sensitivity Bill Reduction %	-		-	-	-	-	-
301												
302					Record Here							
303					ENERGY 25% Bill Reduction					-	-	-
304					Feb 27 Ministry Scenario 7% IR					-	-	-
305												
306		**High Demand**										
307			cenario 1, record below		ENERGY Bill Reduction %	-		-	-	-	-	-
308			enario 15, record below		Change in Demand Bill Reduction %	-		-	-	-	-	-
309												
310					Record Here							
311					ENERGY 25% Bill Reduction					-	-	-
312					High Demand					-	-	-
313												
314	**Debt Cash Flows**											
315		**CF Base Case**										
316					Principle Repayment	-		-	-	-	-	-
317					Interest					(6)	(6)	(6)
318					Borrowing to Fund Interest	-		-	-	6	6	6
319					Borrowing for Rate Reductions	-		-	-	-	-	-
320					Change in GA	-		-	-	-	-	-
321					Total New Debt					6	6	6
322												
323					Record Here							
324					Principle Repayment ($38.5B total)					-	-	-
325					Interest ($35.7B total)					(6)	(6)	(6)
326					Borrowing to Fund Interest ($13.5B total)					6	6	6
327					Borrowing for Rate Reductions ($25.0B total)					-	-	-
328					Change in GA					-	-	-
329					Total New Debt ($38.5B total)					6	6	6
330												
331		**CF Feb 27**										
332					Principle Repayment	-	toggle		-	-	-	-
333					Interest					(6)	(6)	(6)
334					Borrowing to Fund Interest	-		-	-	6	6	6
335					Borrowing for Rate Reductions	-		-	-	-	-	-
336					Change in GA	-		-	-	-	-	-
337					Total New Debt					6	6	6
338												
339					Record Here							
340					Principle Repayment ($21.9B total)					-	-	-
341					Interest ($20.7B total)					(4)	(4)	(4)
342					Borrowing to Fund Interest ($3.9B total)					4	4	4
343					Borrowing for Rate Reductions ($17.1B total)					-	-	-
344					Change in GA					-	-	-
345					Total New Debt ($21.9B total)					4	4	4
346												
347	**Balances**											
348		**Balances - Base Case**										
349					Principle Balance	-		-	-	-	-	-
350					Accumulated Interest Balance	-		-	-	113	119	125
351					Record Here							
352					Debt Balance - Funding for Rate Reductions					-	-	-

Bill Impact

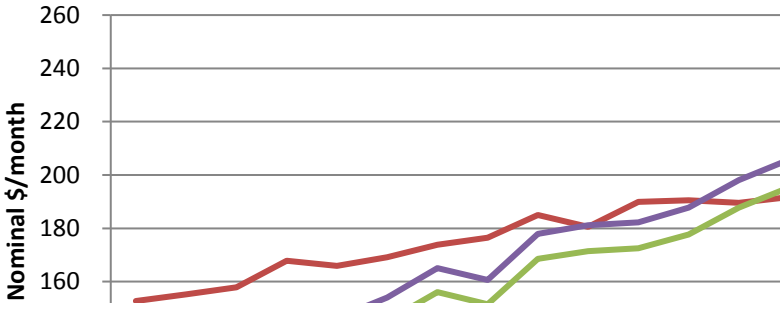
2		**Model period ending**					**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**
4		Financial year ending					2121	2122	2123
6		Model column counter	**Constant**	**Unit**		**Total**	105	106	107
353		Debt Balance - Funding for Interest					113	119	125
355	**Balances - IR Sensitivity**								
356		Principle Balance	-	-	-	-	-	-	-
357		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)
358		Record Here							
359		Debt Balance - Funding for Rate Reductions					-	-	-
360		Debt Balance - Funding for Interest					0	0	0
362	**Balances - Feb 27 Base Case**								
363		Principle Balance	-	-	-	-	-	-	-
364		Accumulated Interest Balance	-	-	-	-	113	119	125
365		Record Here							
366		Debt Balance - Funding for Rate Reductions					-	-	-
367		Debt Balance - Funding for Interest					72	76	80
369	**Balances - Feb 27 IR Sensitivity**								
370		Principle Balance	-	-	-	-	-	-	-
371		Accumulated Interest Balance	-	-	-	-	(0)	(0)	(0)
372		Record Here							
373		Debt Balance - Funding for Rate Reductions					-	-	-
374		Debt Balance - Funding for Interest					(0)	(0)	(0)

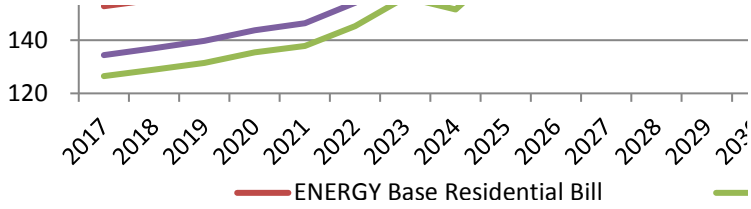
		ENERGY Base	IR Sensitivity
380	Total Borrowing for Rate Reductions	24,977	24,977
381	Total Borrowing to Fund Interest	13,524	20,775
382	Total Debt	38,501	45,751
383	Total Interest Paid (Cost for Deferral Program)	35,664	28,660


260
240
220
200
180
160
140
120
Nominal $/month
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
ENERGY Base Residential Bill


260
240
220
200
180
160
140
120
Nominal $/month
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
ENERGY Base Residential Bill

RP


260
240
220
200
180
160
Nominal $/month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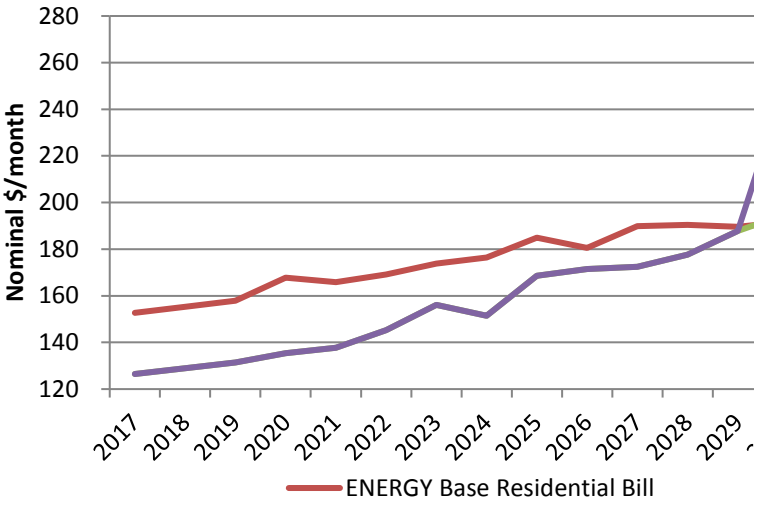
ENERGY Base Residential Bill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Nominal $/month
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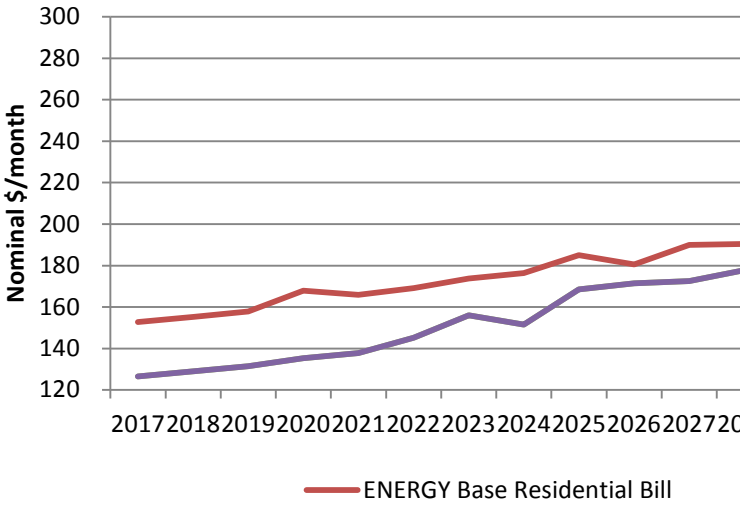
ENERGY Base Residential Bill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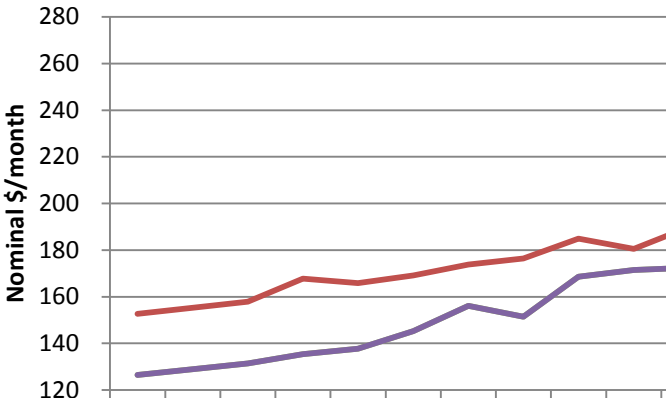
ENERGY Base Residential Bill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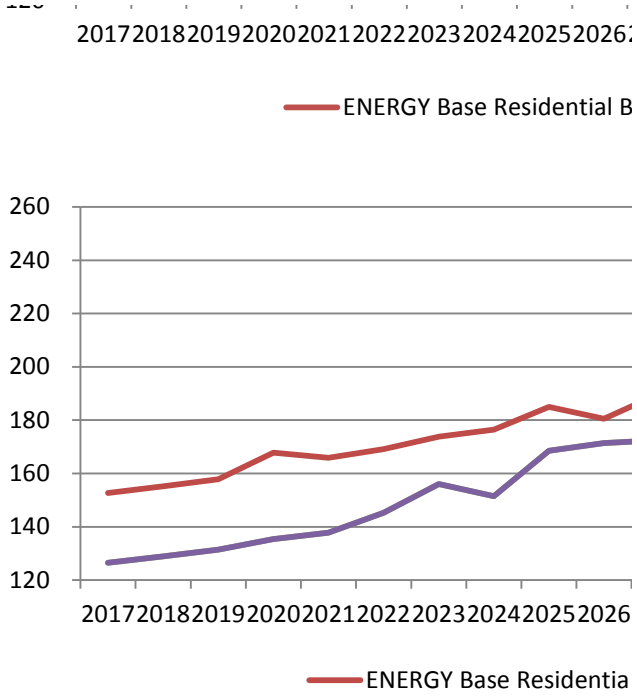
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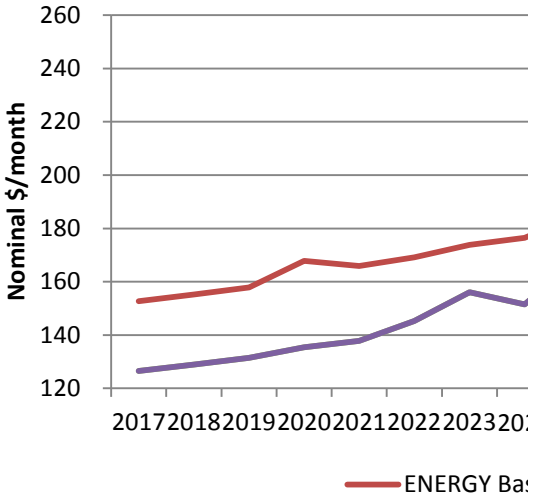
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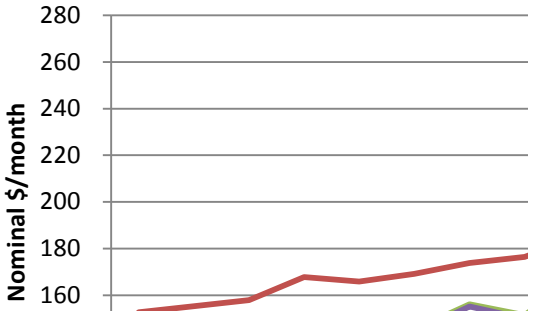
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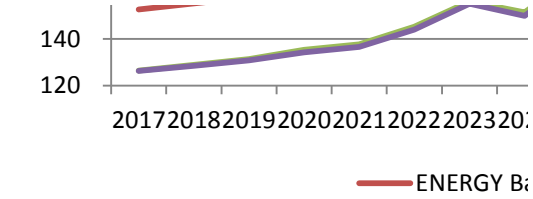
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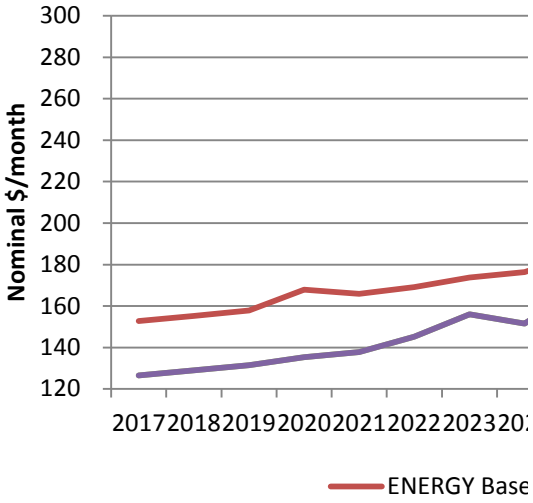
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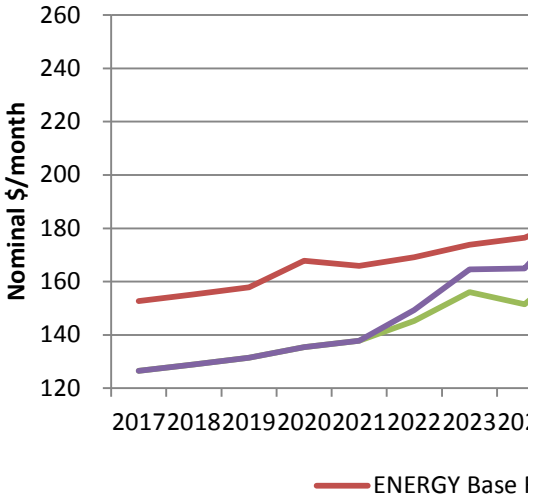
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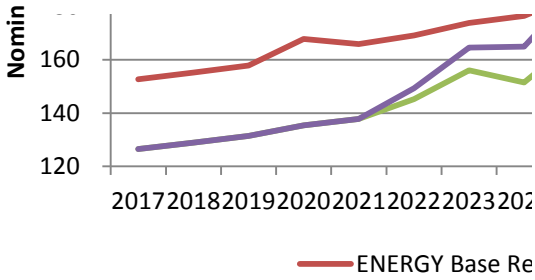
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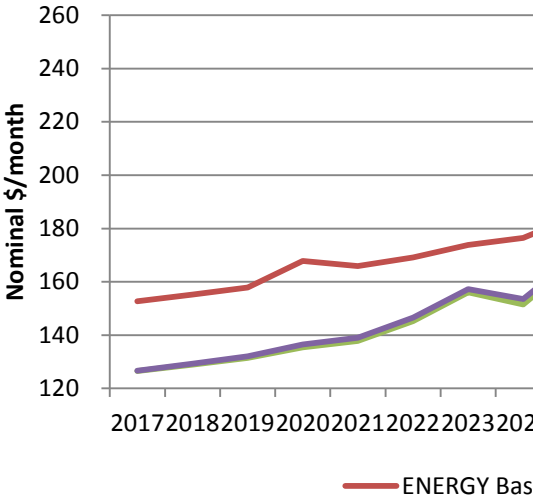
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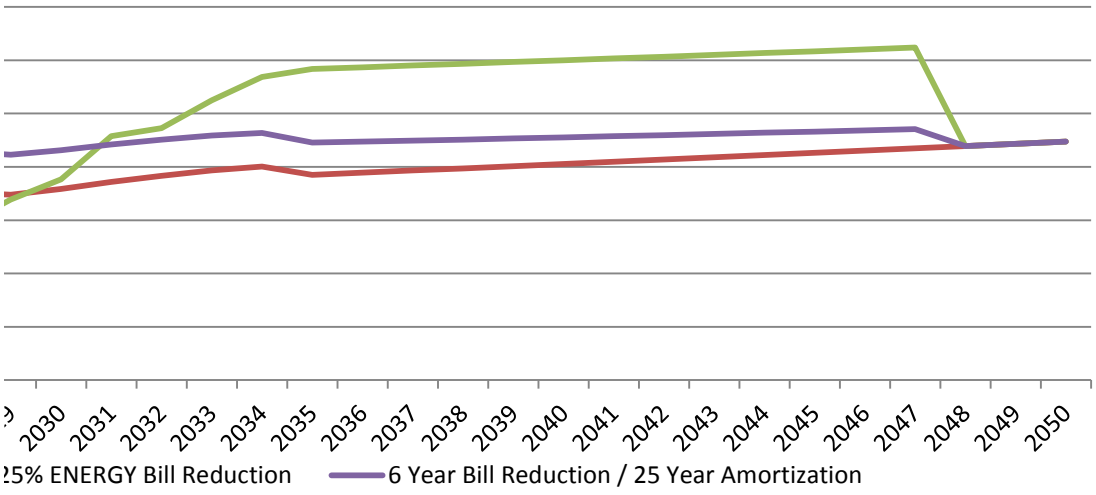
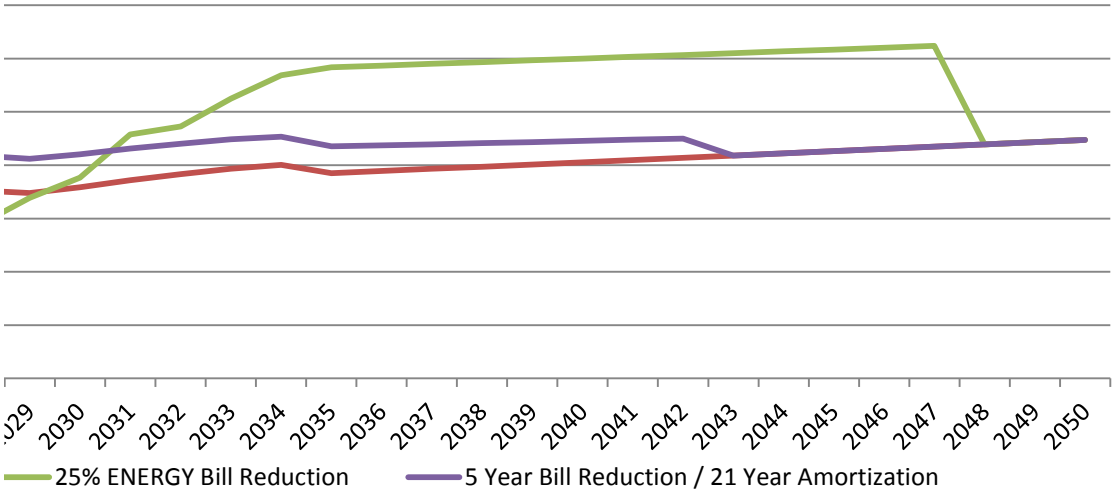
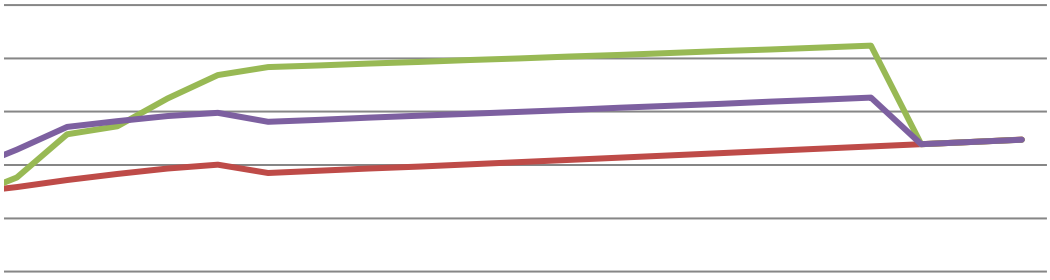
RPP Bill Forecast

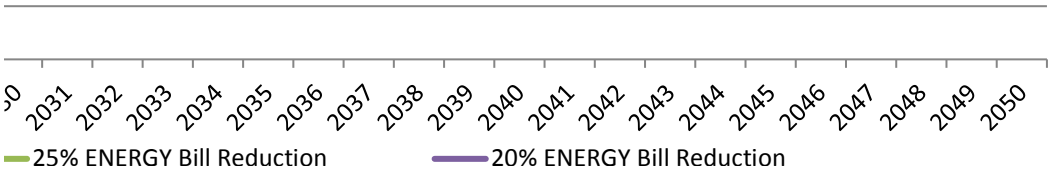


RPP Bill Forecast



P Bill Forecast

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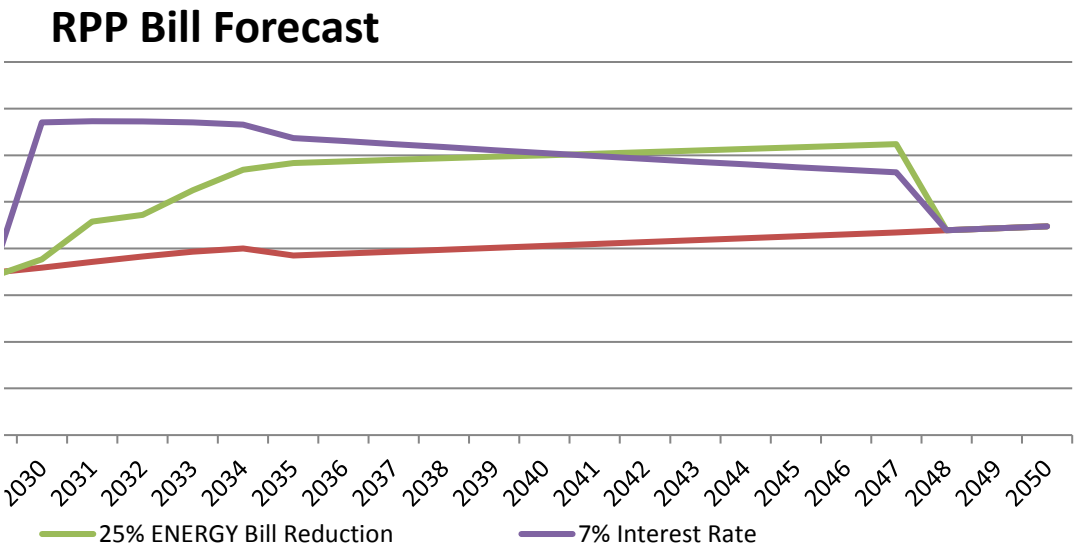
25% ENERGY Bill Reduction
20% ENERGY Bill Reduction


RPP Bill Forecast
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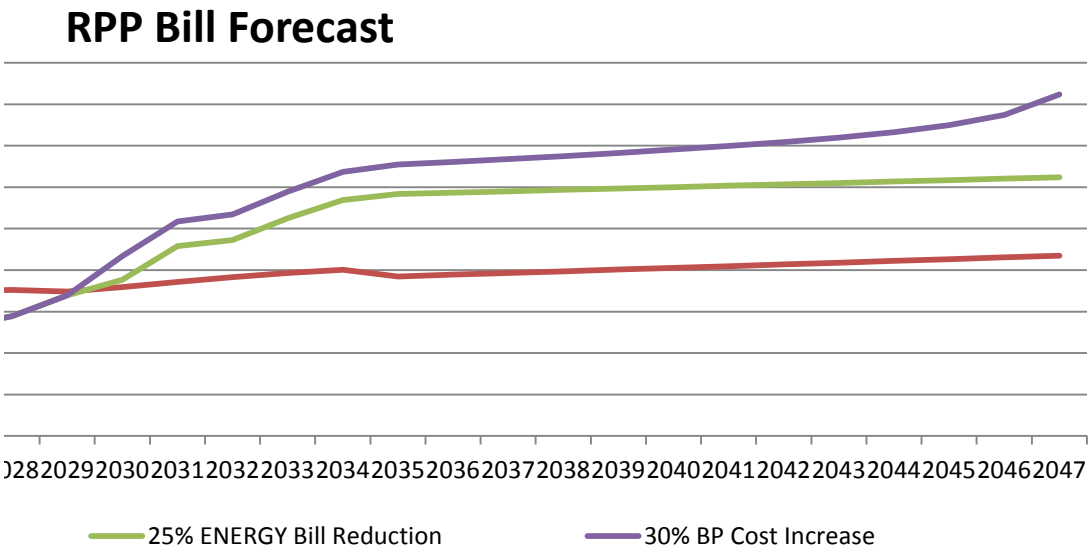
RPP Bill Forecast
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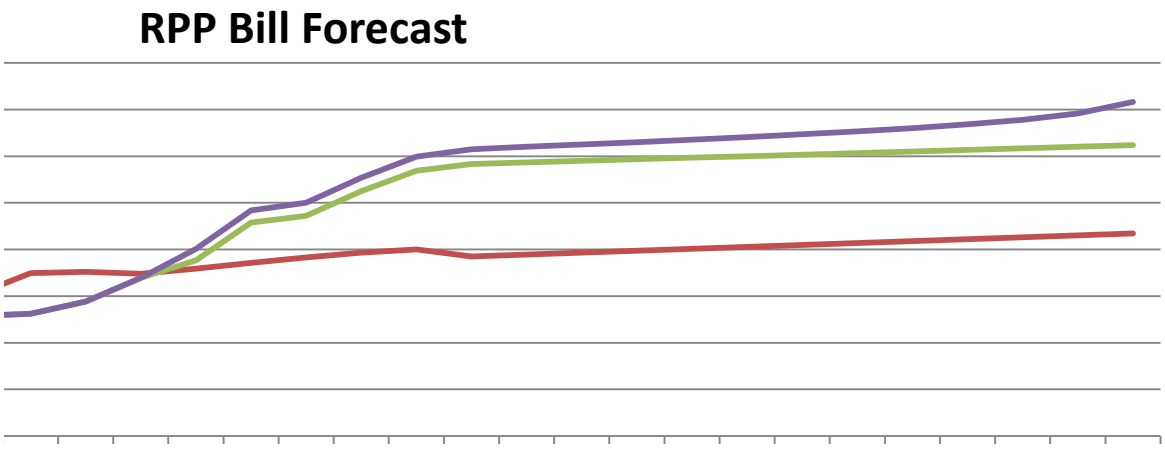
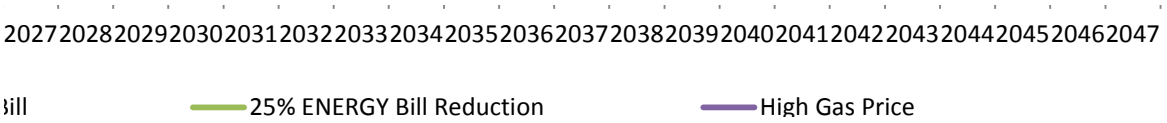
30% BP Cost Increase


RPP Bill Forecast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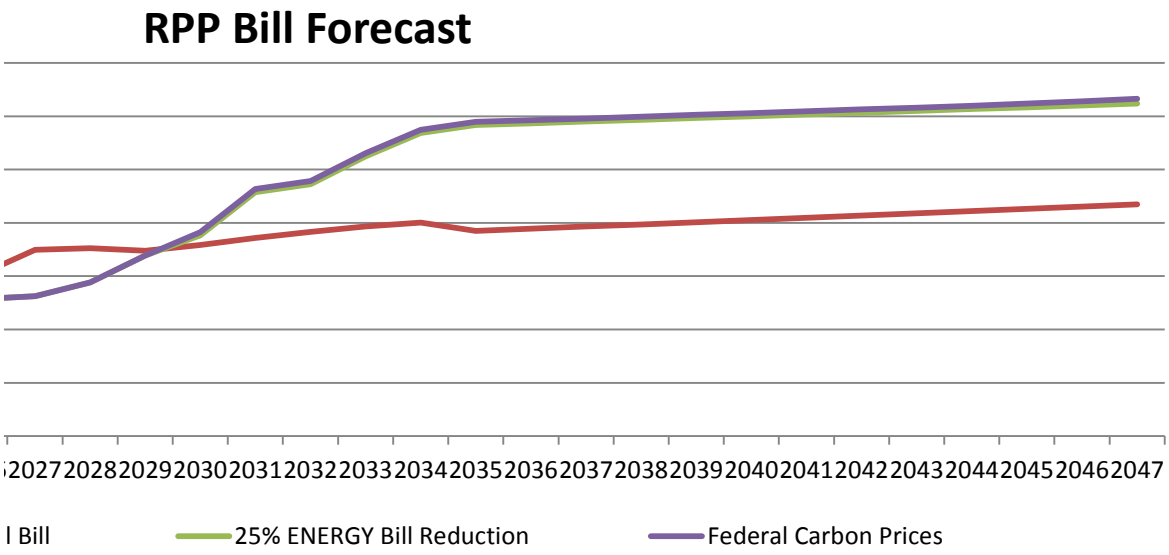
25% ENERGY Bill Reduction
High Gas Price


RPP Bill Forecast
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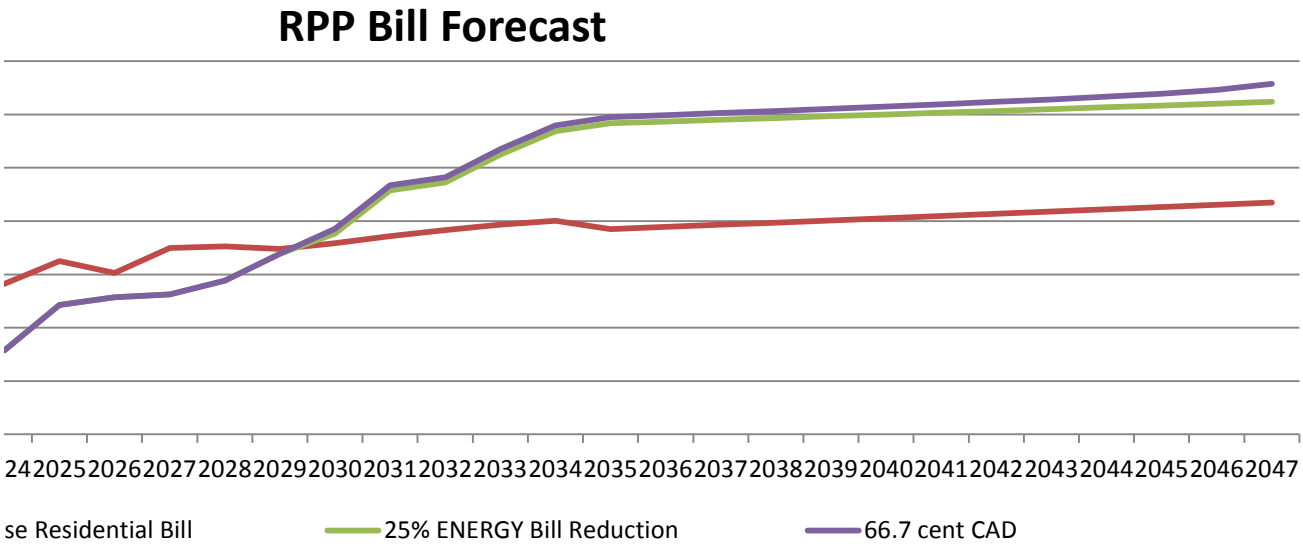
25% ENERGY Bill Reduction
Federal Carbon Prices


RPP Bill Forecast
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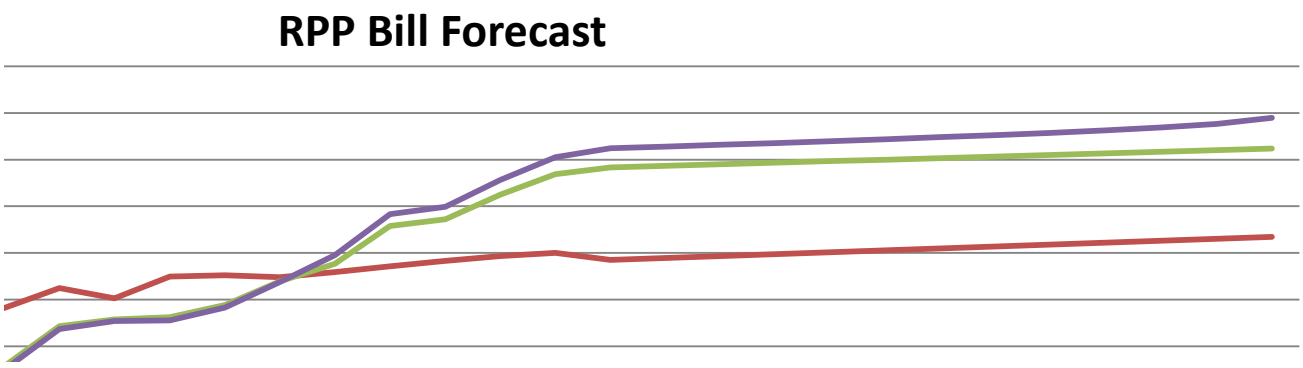
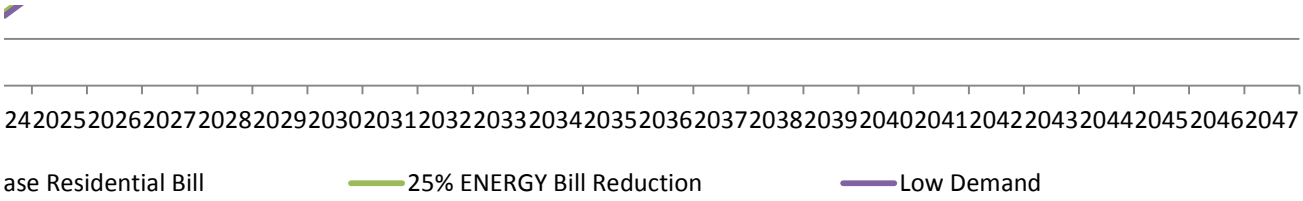

RPP Bill Forecast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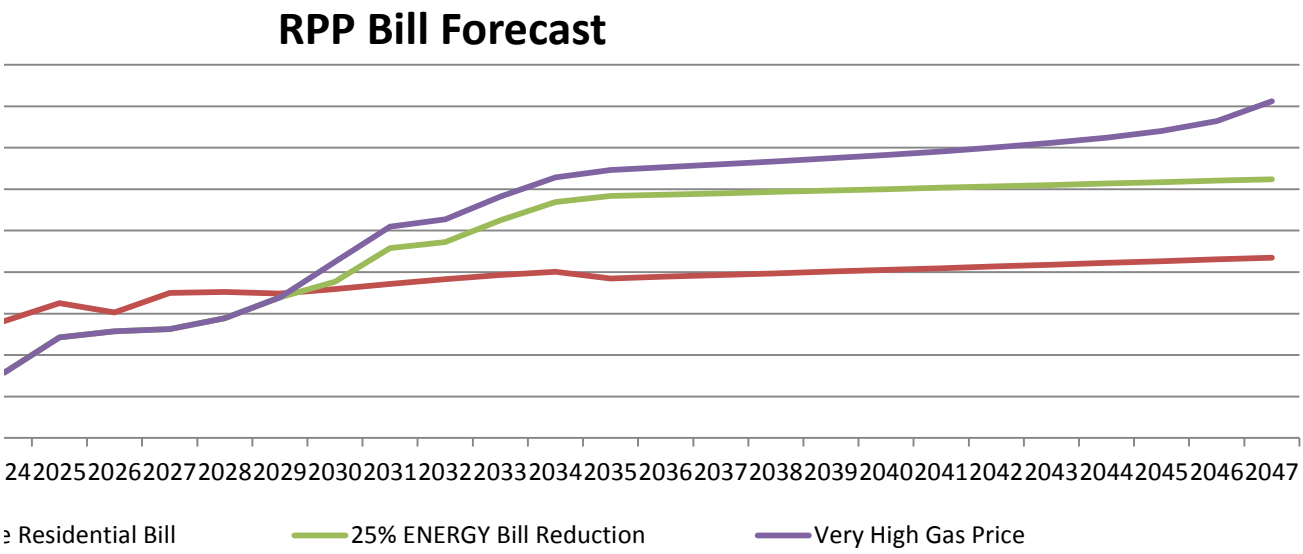
RPP Bill Forecast
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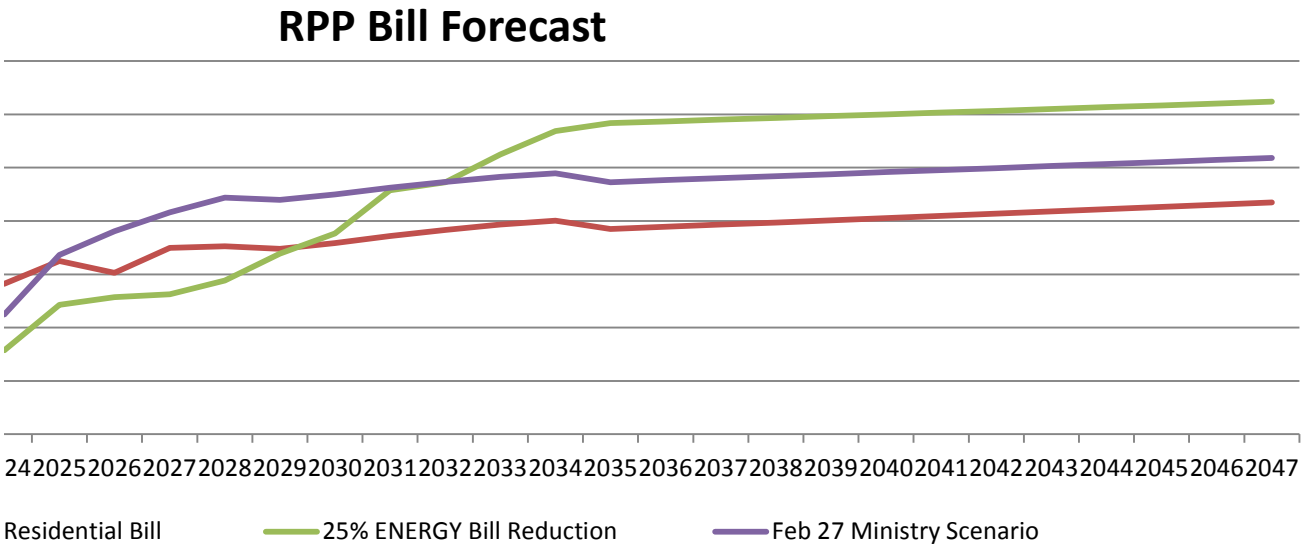
25% ENERGY Bill Reduction
Very High Gas Price


RPP Bill Forecast
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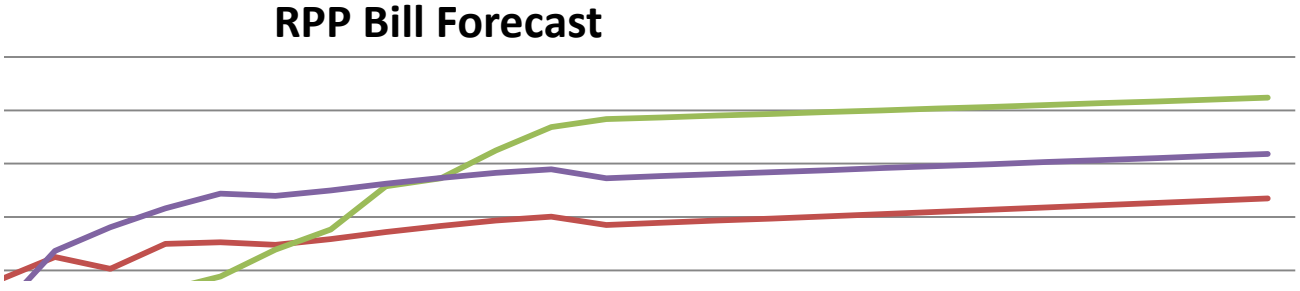
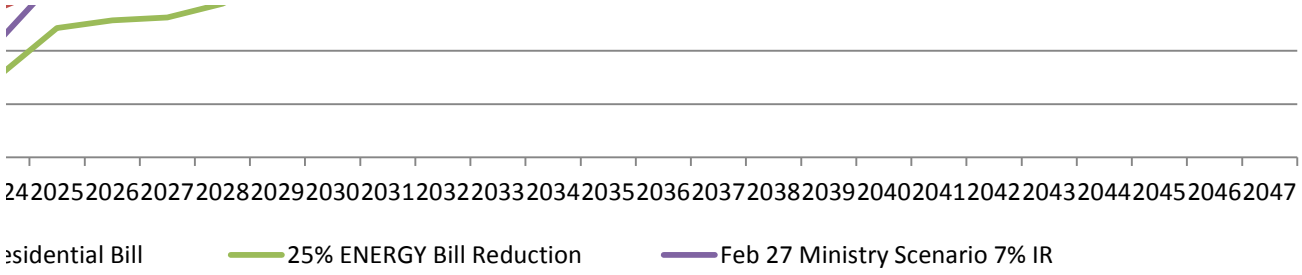
25% ENERGY Bill Reduction
Feb 27 Ministry Scenario


RPP Bill Forecast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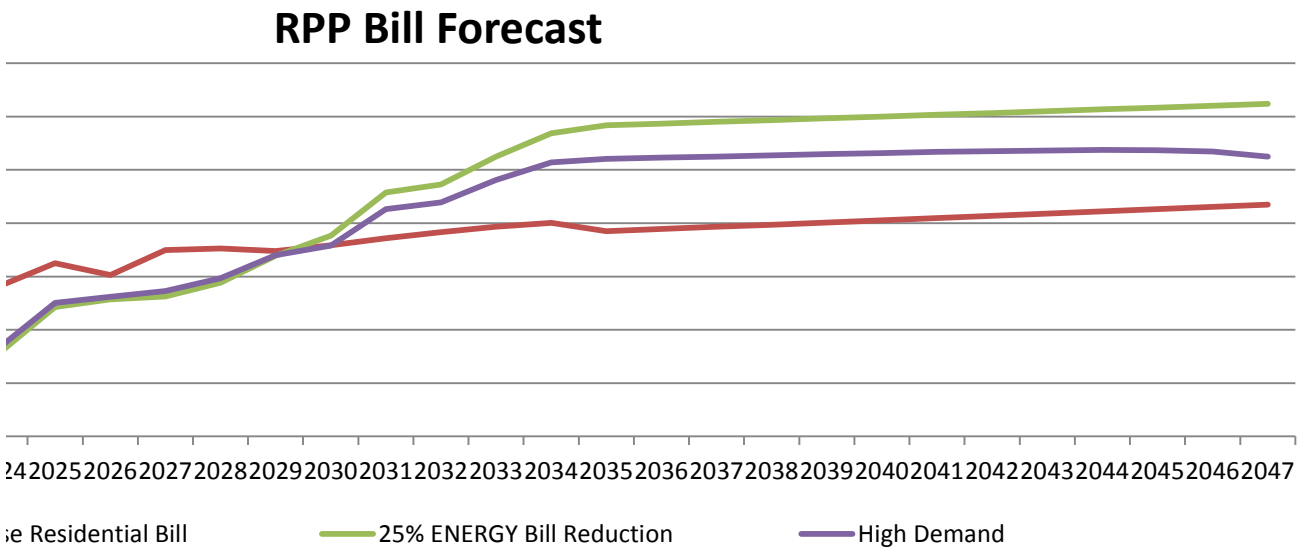
Feb 27 Ministry Scenario 7% IR


RPP Bill Forecast
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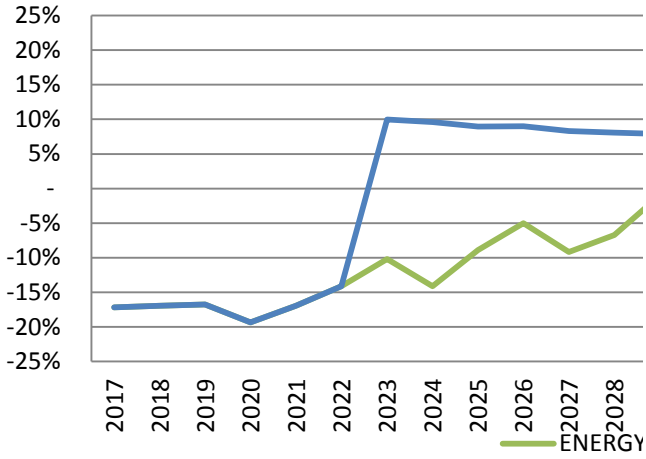

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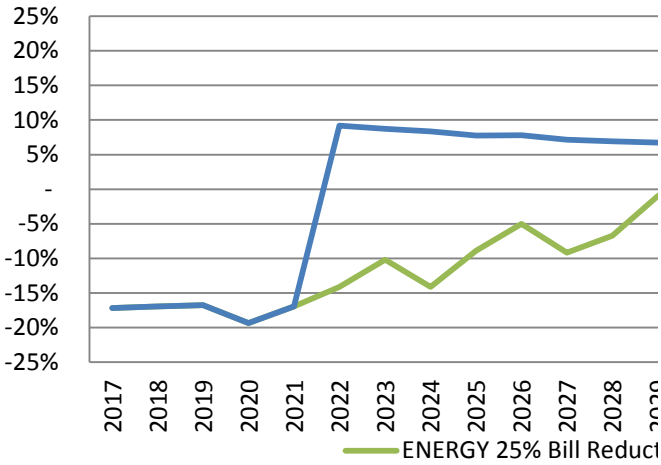

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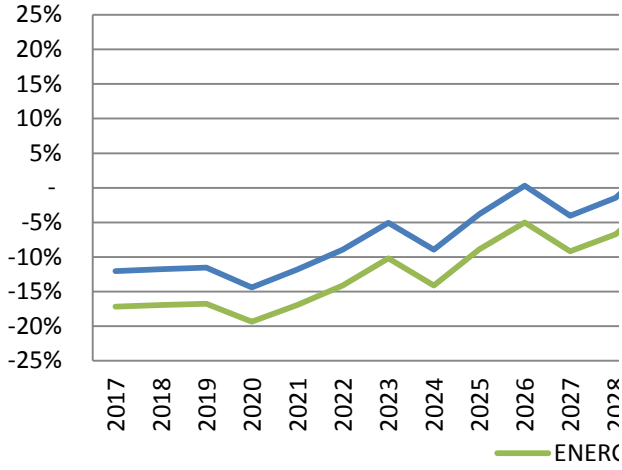

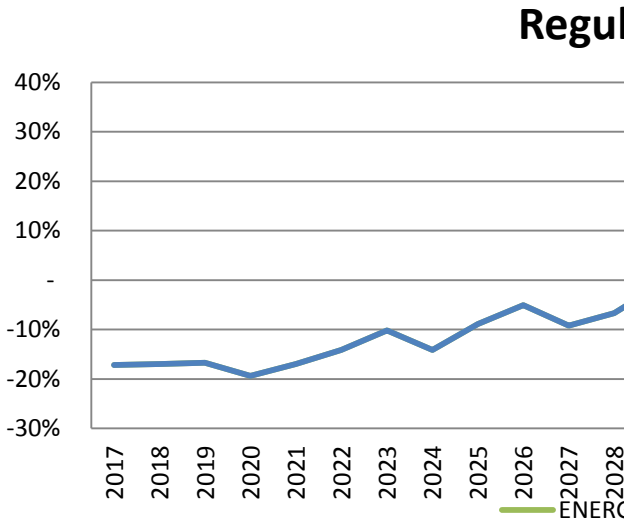
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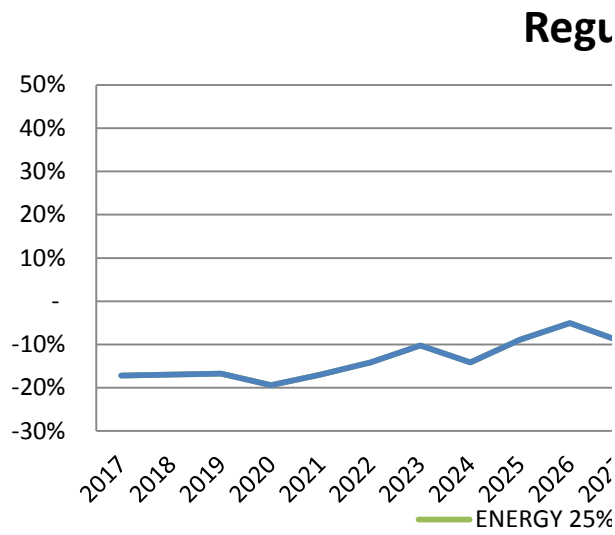
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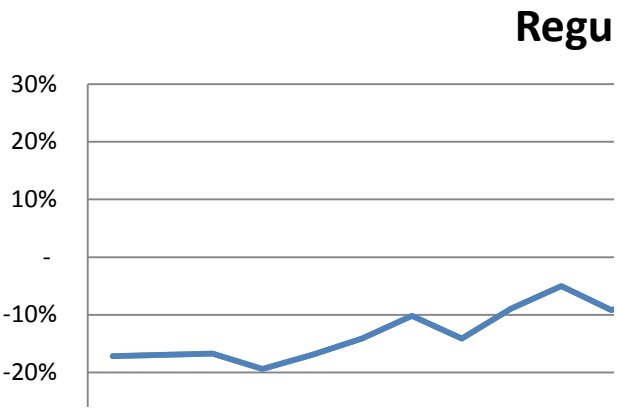
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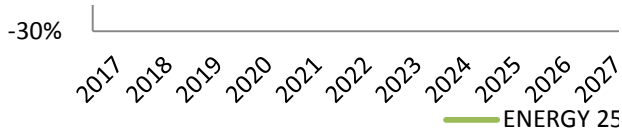

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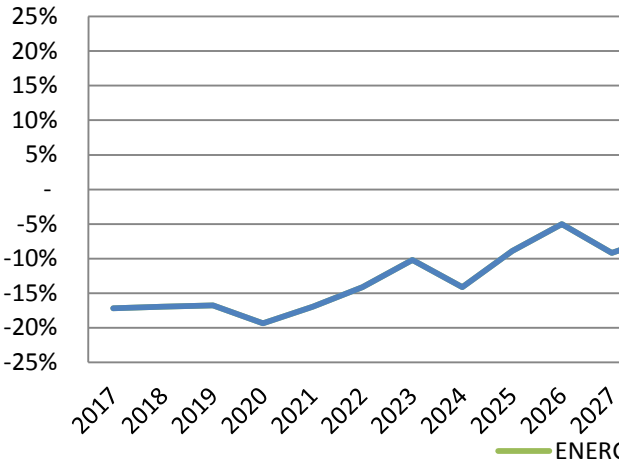

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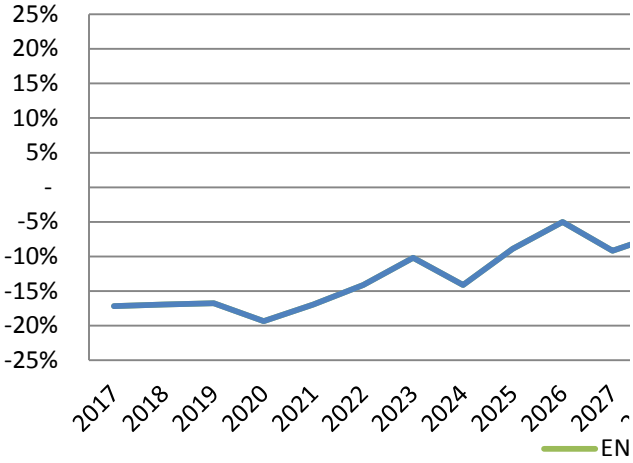

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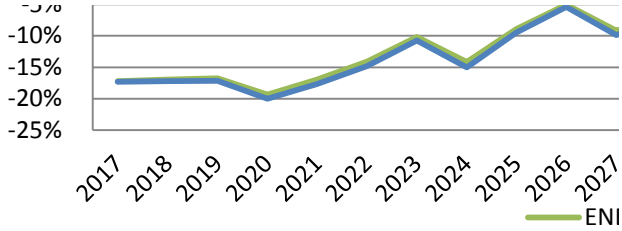
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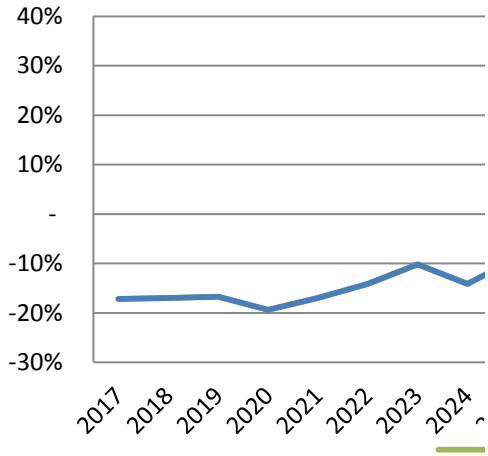
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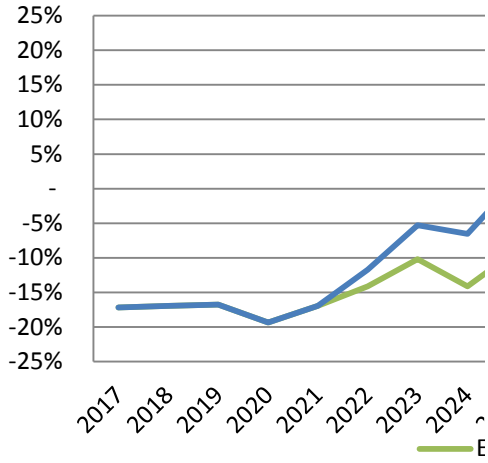
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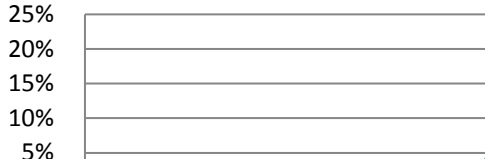
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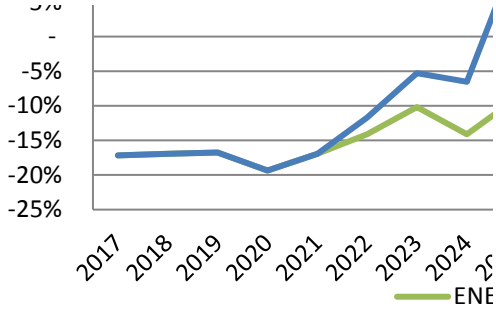
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2024
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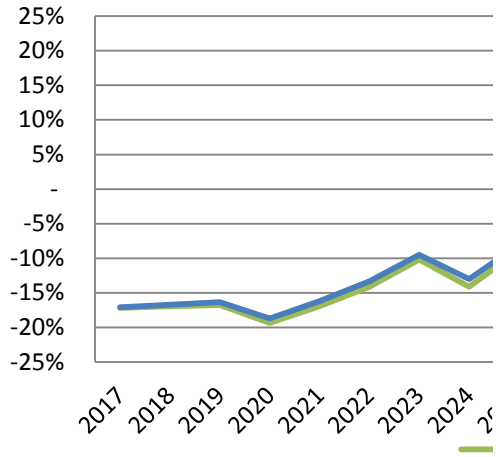
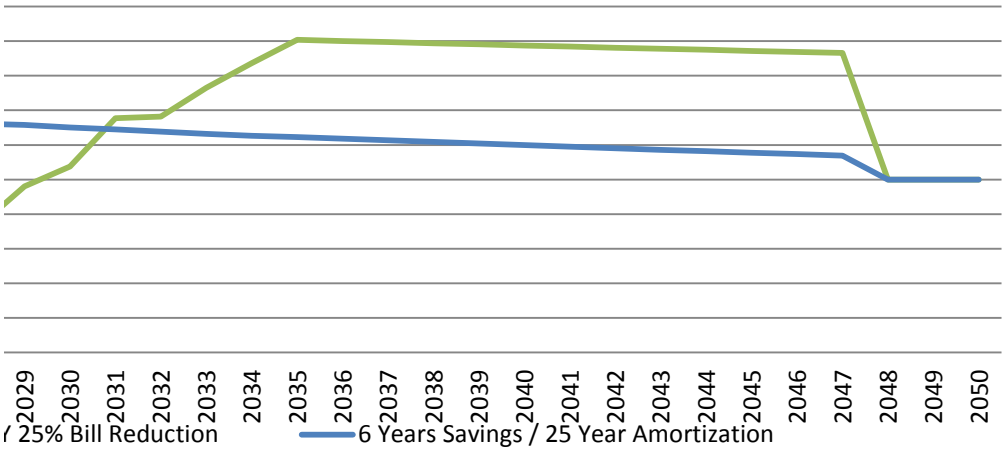
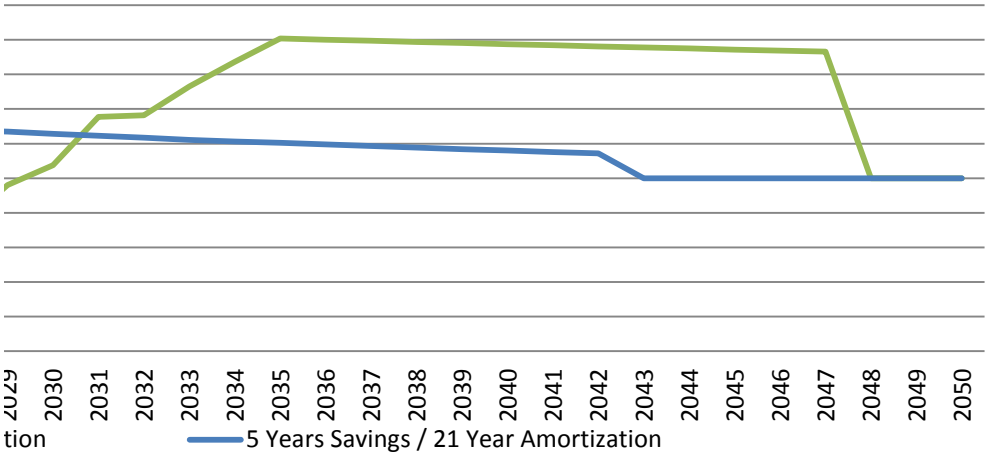

25%
20%
15%
10%
5%
-
-5%
-10%
-15%
-20%
-25%
2017
2018
2019
2020
2021
2022
2023
2024

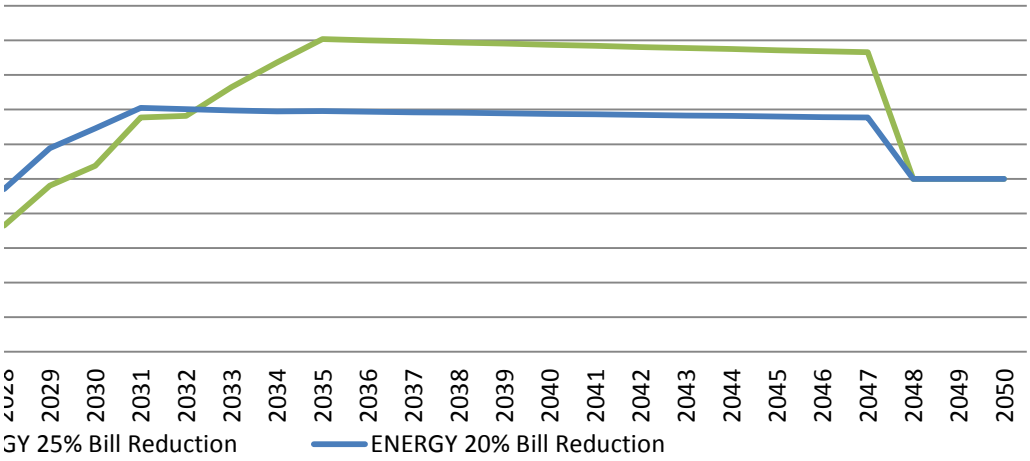
atory Charge as % of Bill



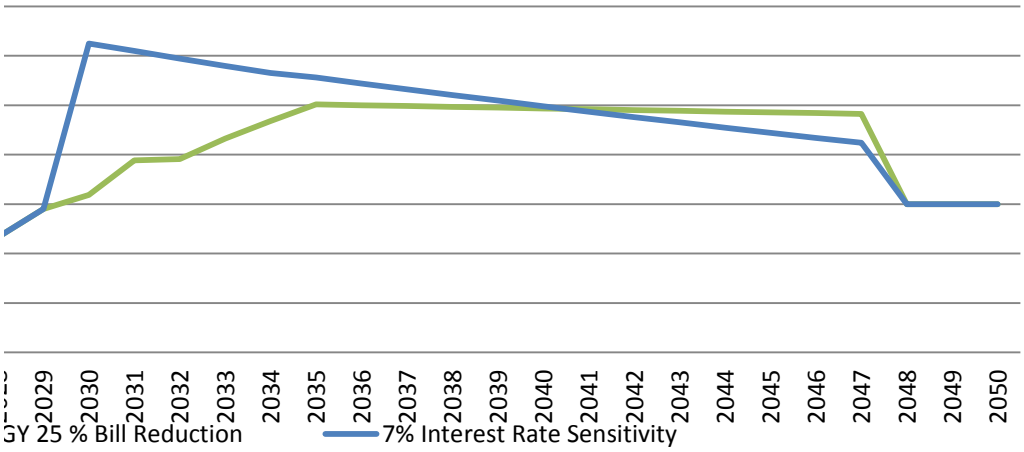
tory Charge as % of Bill



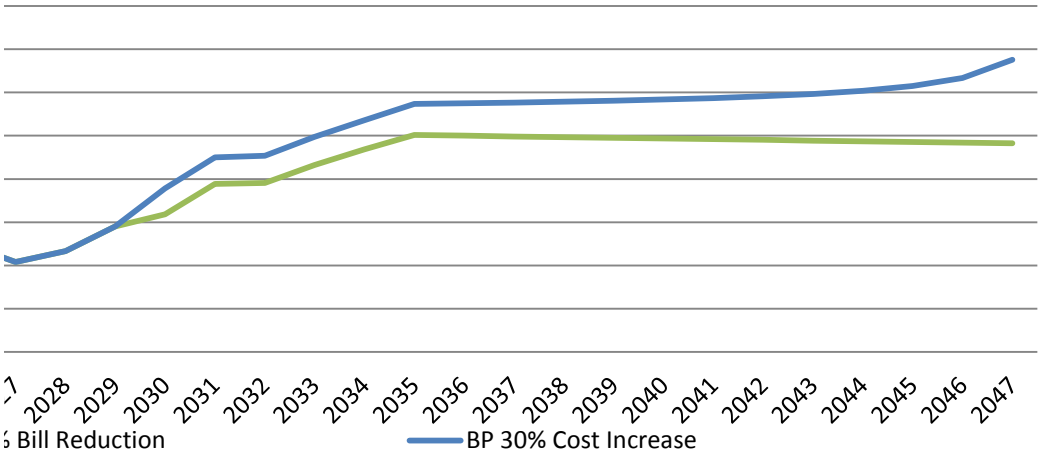
latory Charge as % of Bill



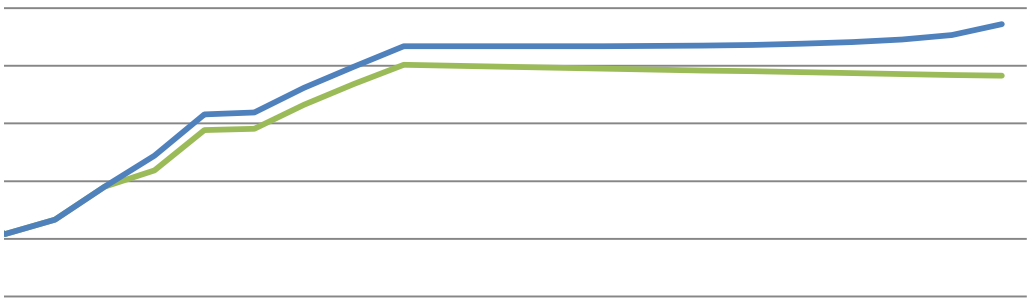
latory Charge as % of Bill

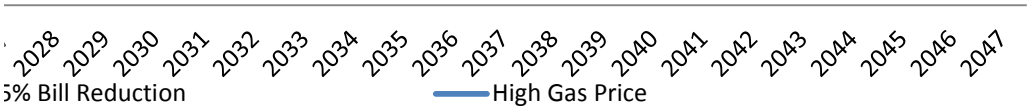


ılatory Charge as % of Bill

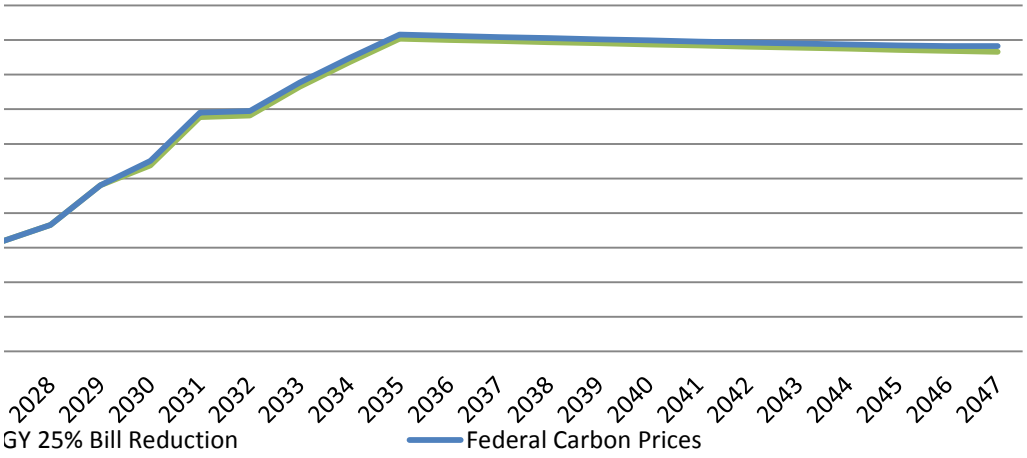


ılatory Charge as % of Bill

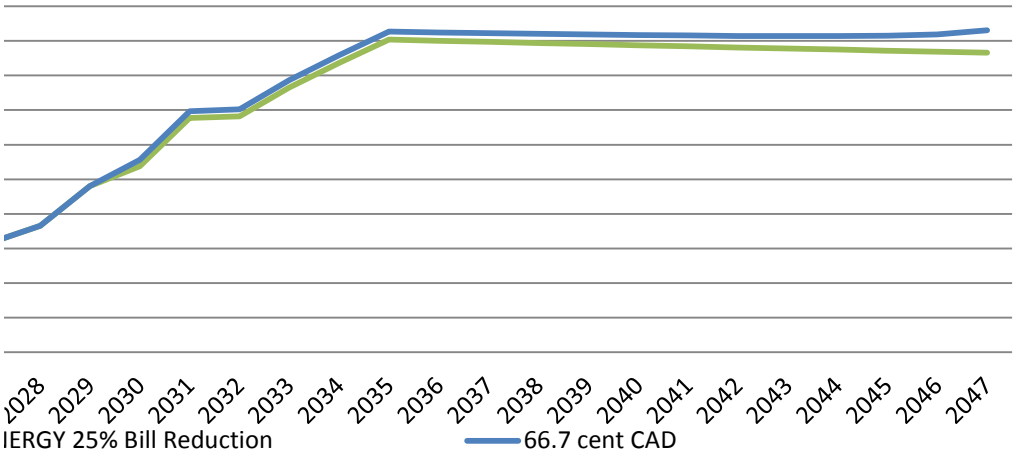




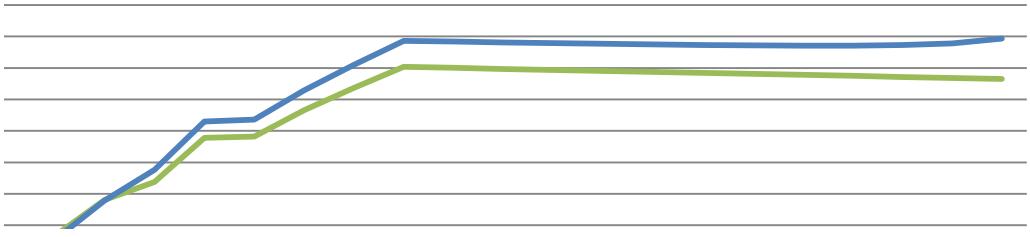
latory Charge as % of Bill

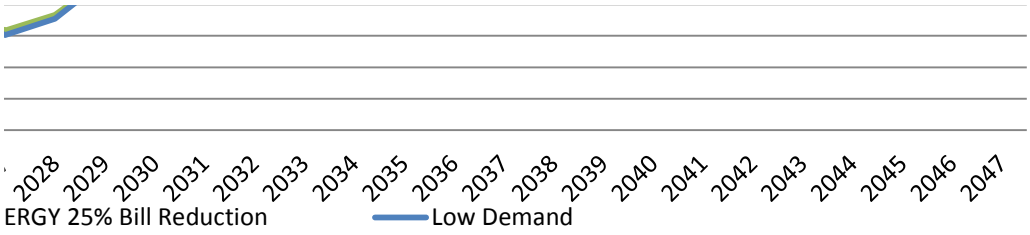


atory Charge as % of Bill

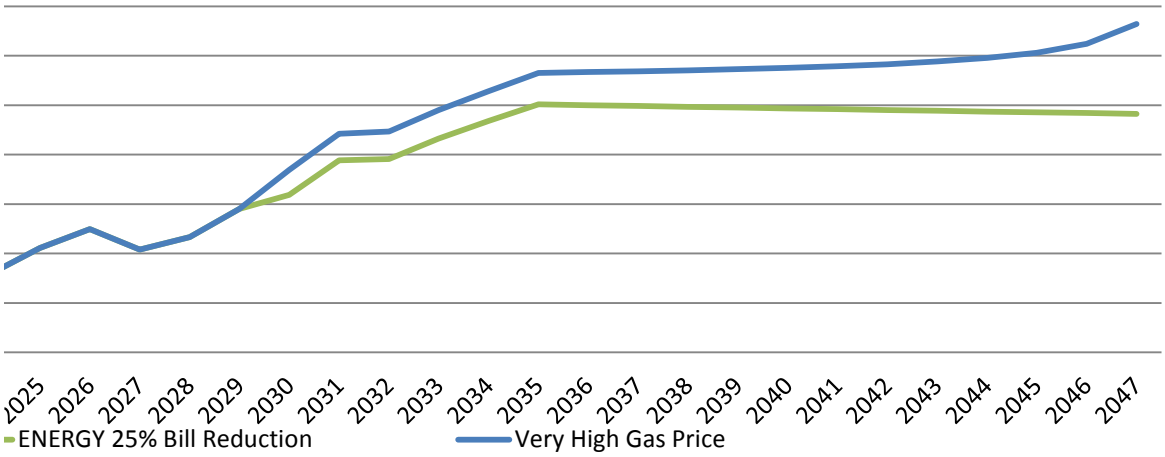


latory Charge as % of Bill

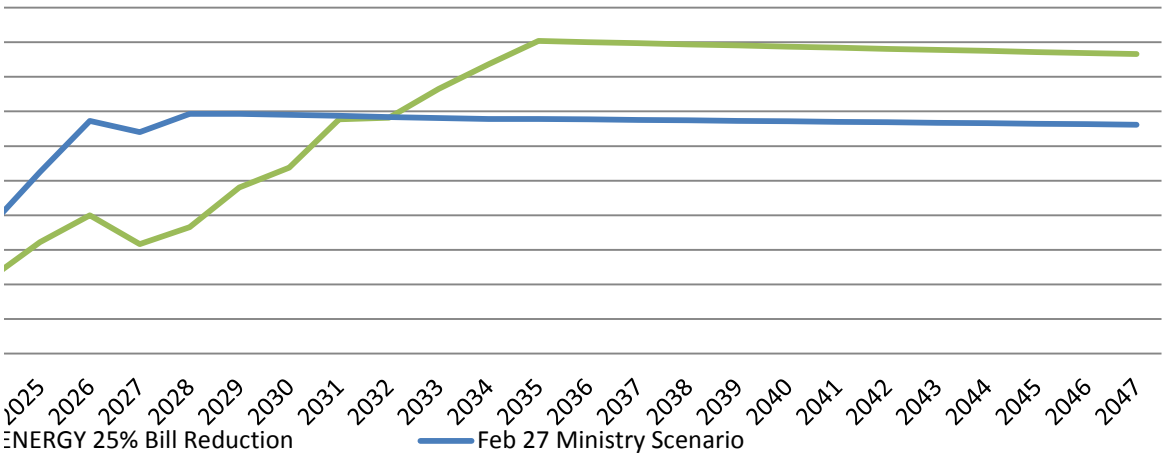




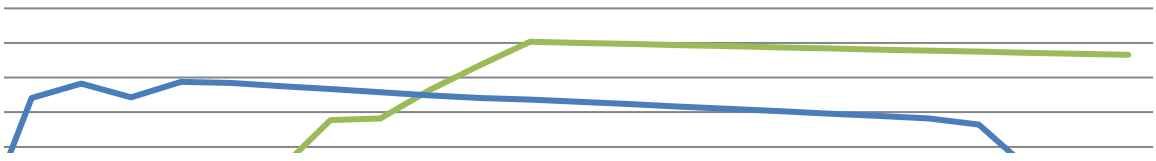
Regulatory Charge as % of Bill

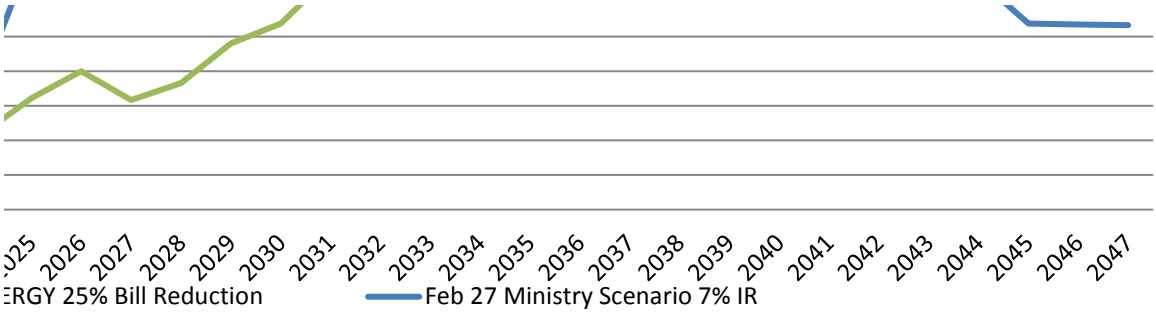


Regulatory Charge as % of Bill

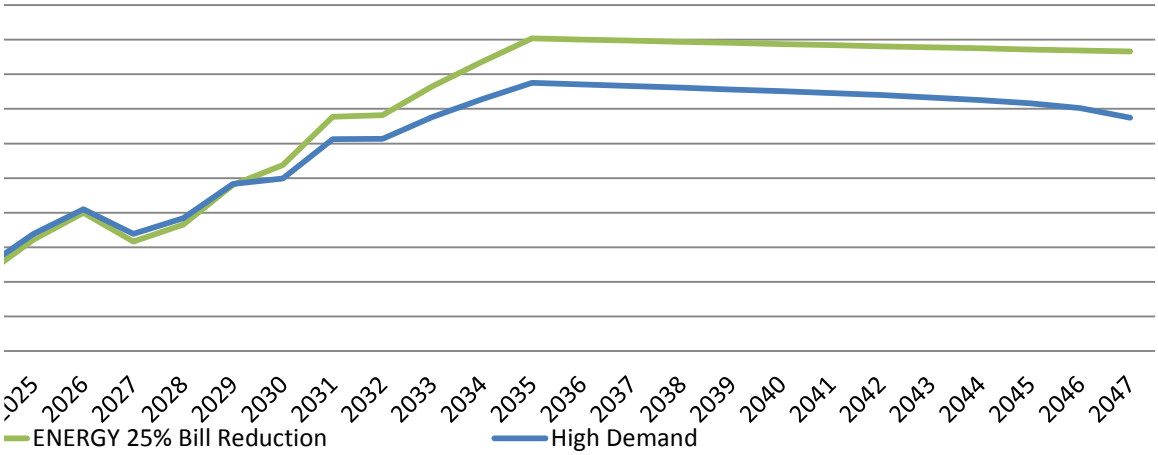


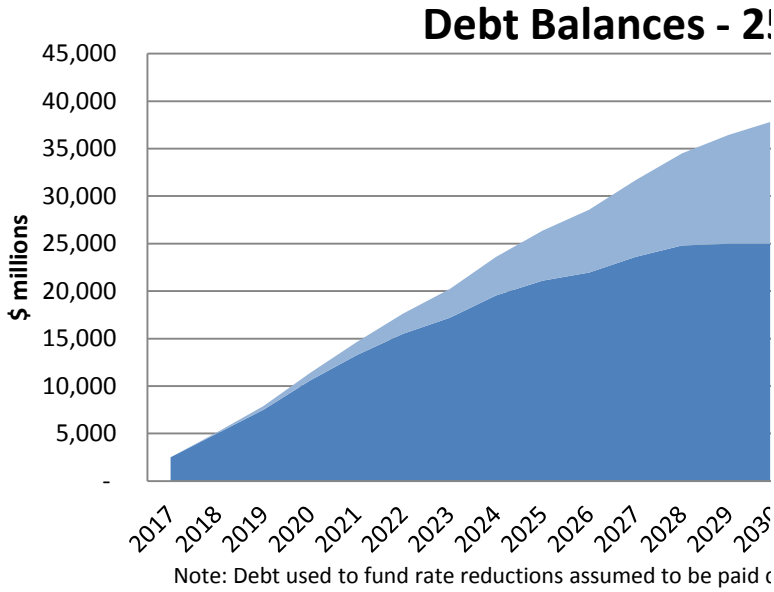
Regulatory Charge as % of Bill

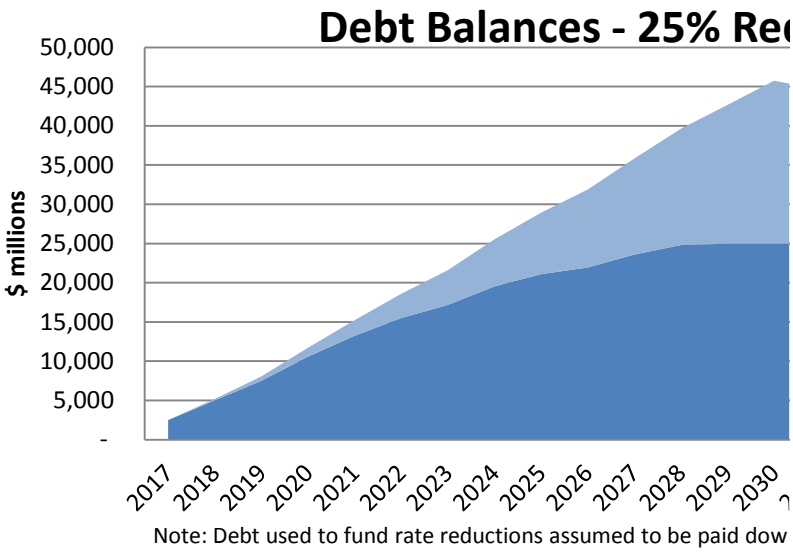


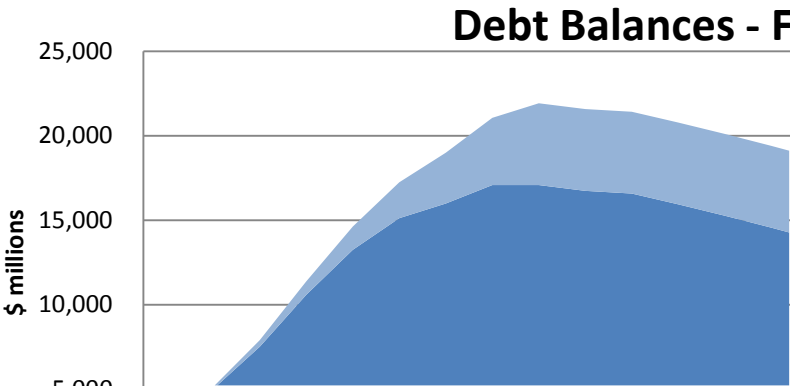


Regulatory Charge as % of Bill

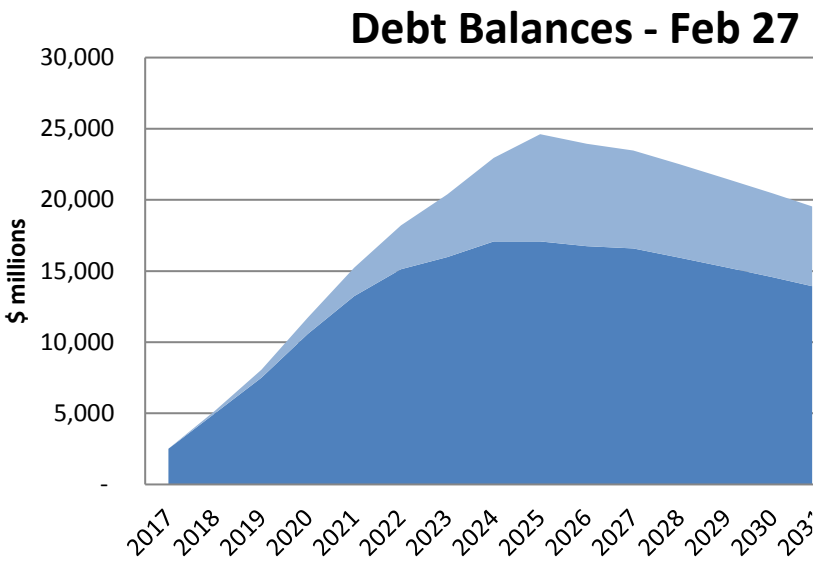



Debt Balances - 2
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
$ millions
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
Note: Debt used to fund rate reductions assumed to be paid


Debt Balances - 25% Re
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
$ millions
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
Note: Debt used to fund rate reductions assumed to be paid dow

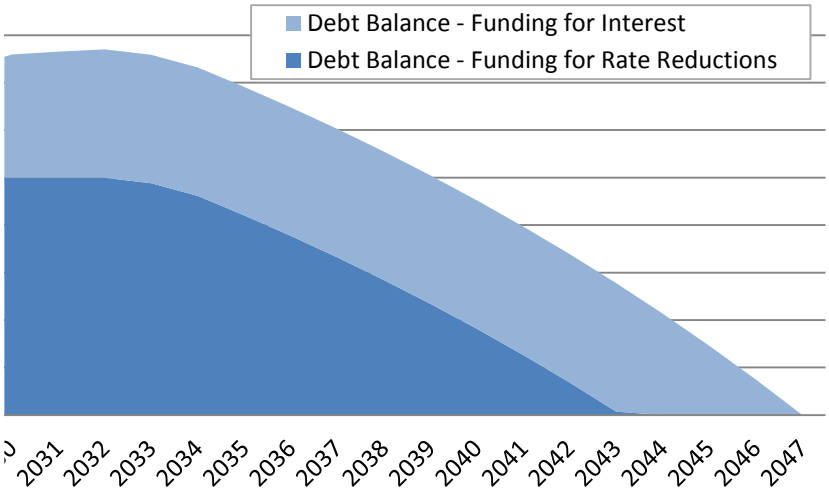

Debt Balances - F
25,000
20,000
15,000
10,000
$ millions

Note: Debt used to fund rate reductions assumed to be paid do



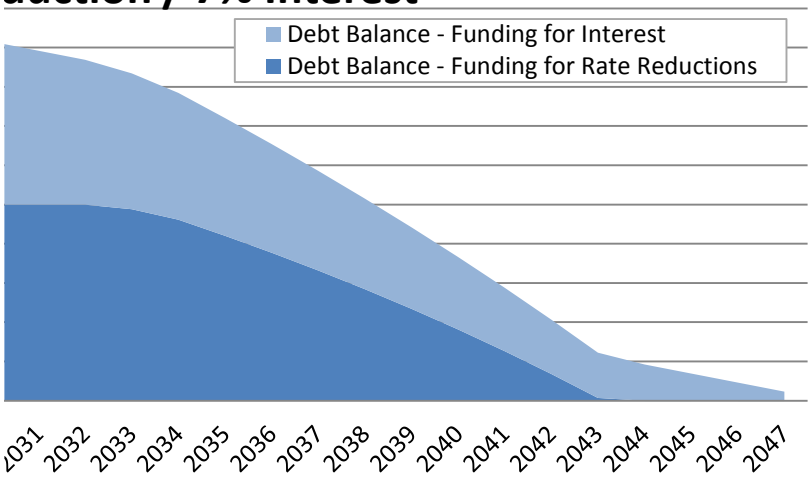
Note: Debt used to fund rate reductions assumed to be paid down

5% Reduction Base Case



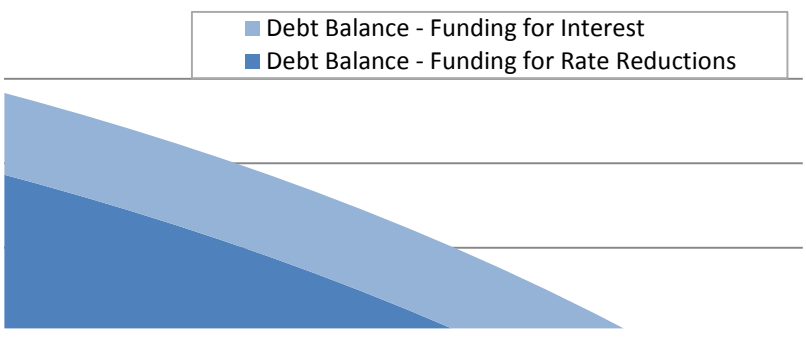
down first.

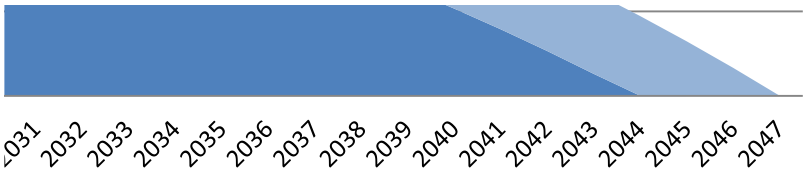
duction / 7% Interest



n first.

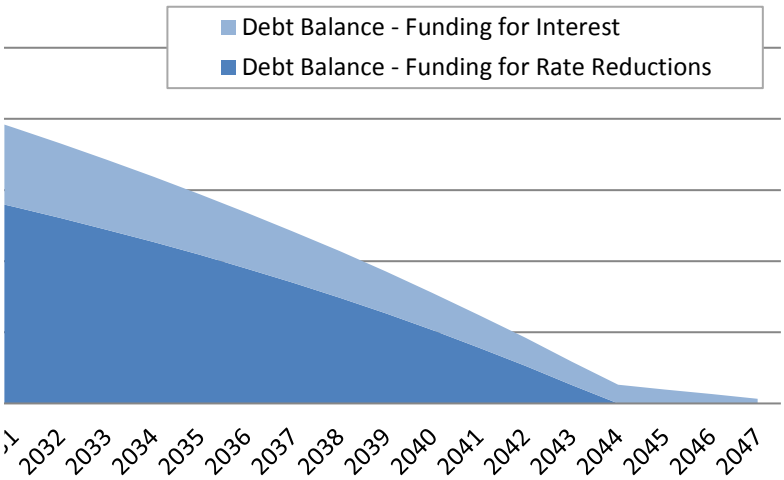
eb 27 Proposal



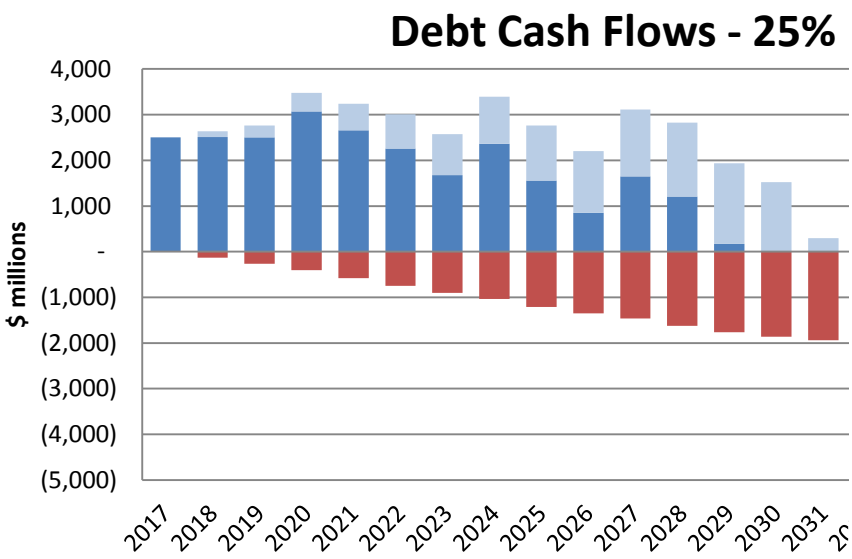


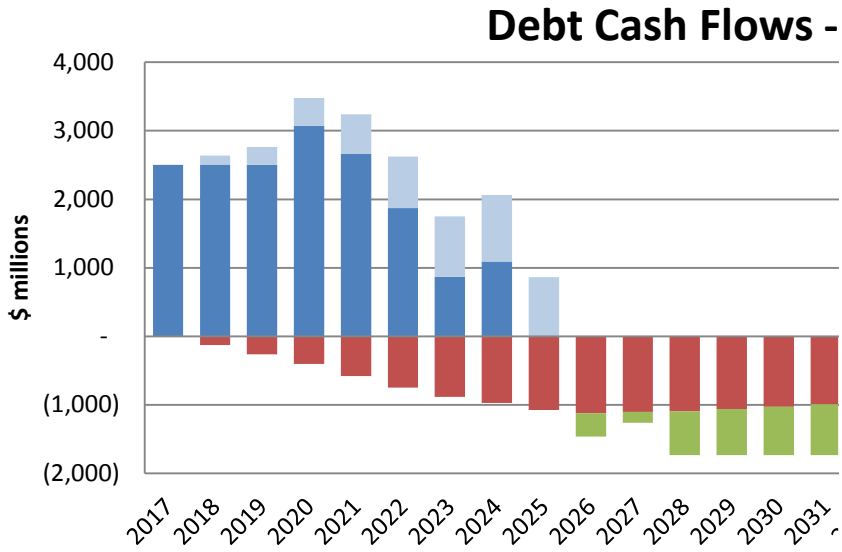
wn first.

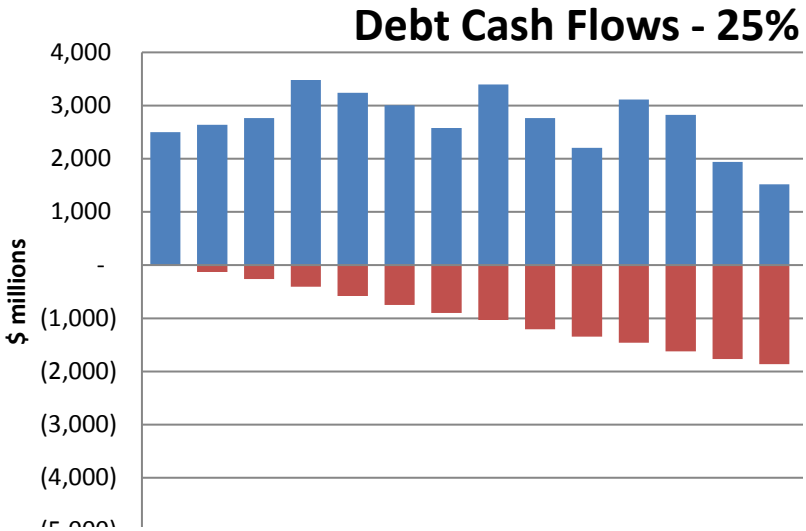
Proposal / 7% Interest

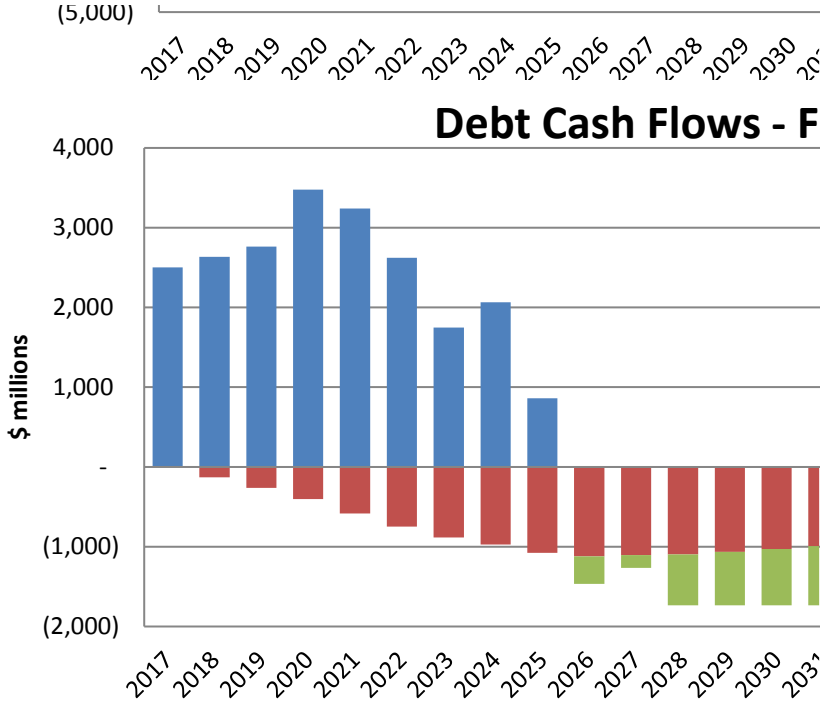


first.

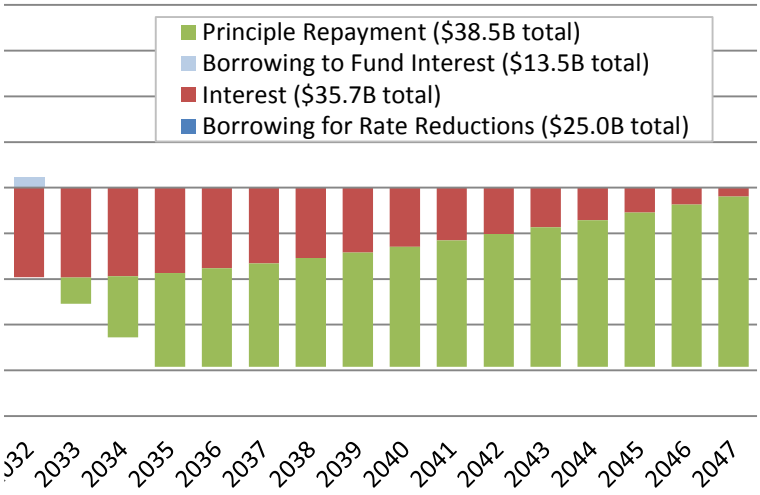

Debt Cash Flows - 25%
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
(3,000)
(4,000)
(5,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031


Debt Cash Flows -
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031

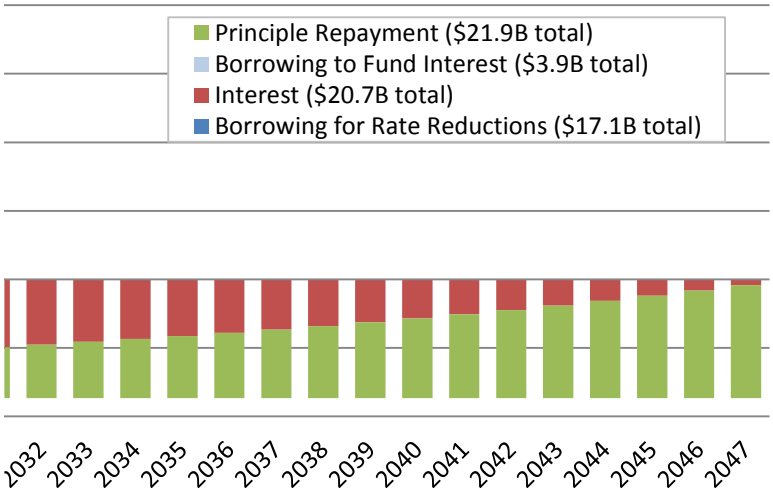

Debt Cash Flows - 25%
$ millions
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
(3,000)
(4,000)


(5,000)
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
Debt Cash Flows - F
4,000
3,000
2,000
1,000
-
(1,000)
(2,000)
$ millions
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030

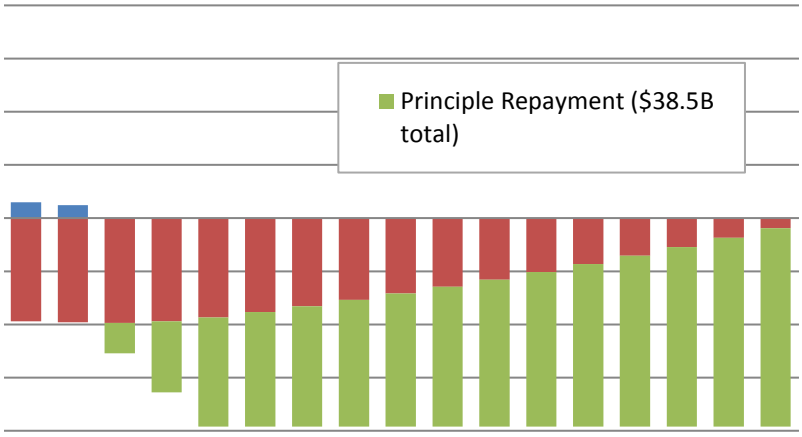
Reduction Base Case

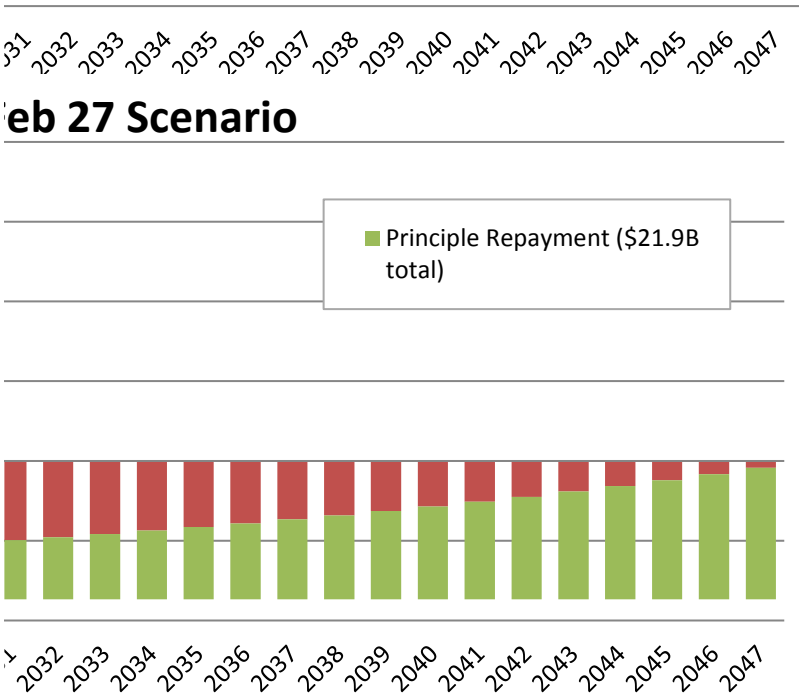


Feb 27 Proposal



Reduction Base Case




31 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047
eb 27 Scenario
Principle Repayment ($21.9B total)
1 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047

$ billions	ENE
Interest Rate	4%
Total Borrowing for Rate Reductions	25.0
Total Borrowing to Fund Interest	10.1
Total Debt	35.1
Total Interest Paid (Cost for Deferral Program	23.2

ERGY 25% Bill Reduction		Feb 27 Ministry Scenario		
5%	7%	4%	5%	7%
25.0	25.0	17.1	17.1	17.1
13.5	20.8	3.9	4.8	7.5
38.5	45.8	21.0	21.9	24.6
35.7	51.2	14.1	20.7	28.7

OpTime

Model period ending				**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
Financial year ending				2017	2018	2019	2020	2021	2022	2023	2024	2025
Model column counter	**Constant**	**Unit**	**Total**	1	2	3	4	5	6	7	8	9
TIME RULER												
Model column counter		counter		1	2	3	4	5	6	7	8	9
First model column flag		flag	1	1	-	-	-	-	-	-	-	-
Model column total	200											
1st model column start date - Annual	01 Jan 2017	date										
Months per Operations Model period	12	months										
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Model period beginning		date		01 Jan 2017	01 Jan 2018	01 Jan 2019	01 Jan 2020	01 Jan 2021	01 Jan 2022	01 Jan 2023	01 Jan 2024	01 Jan 2025
Months per Operations Model period	12	months										
Model period beginning	-	date	- -	01 Jan 2017	01 Jan 2018	01 Jan 2019	01 Jan 2020	01 Jan 2021	01 Jan 2022	01 Jan 2023	01 Jan 2024	01 Jan 2025
Model period ending		date		31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
1st model column start date - Annual	01 Jan 2017	date										
First modelling column financial year number	2017	year #										
First modelling column financial year number	2017	year #										
Financial year end month number	12	month #										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Financial year ending		year #		2017	2018	2019	2020	2021	2022	2023	2024	2025
Financial year middle month number	6	month #										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
Model period mid-year date	Val, LUEC, PP	date		30 Jun 2017	30 Jun 2018	30 Jun 2019	30 Jun 2020	30 Jun 2021	30 Jun 2022	30 Jun 2023	30 Jun 2024	30 Jun 2025
FLAGS												
General												
Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date										
Length of Operations period	30	years										
Last Operations date	31 Jan 2052	date										
First model column flag	-	flag	1 -	1	-	-	-	-	-	-	-	-
Model period ending	-	date	- -	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20	31 Dec 21	31 Dec 22	31 Dec 23	31 Dec 24	31 Dec 25
Days in model period		days	72,683	-	365	365	366	365	365	365	366	365
Pre-COD Period												
Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date										
Model period ending	-	date	- -	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
Pre-COD period flag		flag	5	1	1	1	1	1	-	-	-	-
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
Pre-COD period counter		counter		1	2	3	4	5	-	-	-	-
Pre-COD period total	5											
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
First Pre-COD period column flag		flag	1	1	-	-	-	-	-	-	-	-
Pre-COD period flag	-	flag	5 -	1	1	1	1	1	-	-	-	-
Last Pre-COD period column flag		flag	1	-	-	-	-	1	-	-	-	-

OpTime

	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	**Model period ending**					**31 Dec 2017**	**31 Dec 2018**	**31 Dec 2019**	**31 Dec 2020**	**31 Dec 2021**	**31 Dec 2022**	**31 Dec 2023**	**31 Dec 2024**	**31 Dec 2025**
4	Financial year ending					2017	2018	2019	2020	2021	2022	2023	2024	2025
6	Model column counter	**Constant**	**Unit**	**Total**		1	2	3	4	5	6	7	8	9
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	1	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
72	Operations period flag		flag	30		-	-	-	-	-	1	1	1	1
74	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
75	Operations period counter		counter			-	-	-	-	-	1	2	3	4
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
79	First Operations period column flag		flag	1		-	-	-	-	-	1	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	1	1	1	1
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024	31 Dec 2025
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**	**Total**		10	11	12	13	14	15	16	17	18
8	**TIME RULER**													
10	Model column counter		counter			10	11	12	13	14	15	16	17	18
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2026	01 Jan 2027	01 Jan 2028	01 Jan 2029	01 Jan 2030	01 Jan 2031	01 Jan 2032	01 Jan 2033	01 Jan 2034
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2026	01 Jan 2027	01 Jan 2028	01 Jan 2029	01 Jan 2030	01 Jan 2031	01 Jan 2032	01 Jan 2033	01 Jan 2034
21	Model period ending		date			31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2026	2027	2028	2029	2030	2031	2032	2033	2034
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2026	30 Jun 2027	30 Jun 2028	30 Jun 2029	30 Jun 2030	30 Jun 2031	30 Jun 2032	30 Jun 2033	30 Jun 2034
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 26	31 Dec 27	31 Dec 28	31 Dec 29	31 Dec 30	31 Dec 31	31 Dec 32	31 Dec 33	31 Dec 34
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	S	T	U	V	W	X	Y	Z	AA
2	**Model period ending**					**31 Dec 2026**	**31 Dec 2027**	**31 Dec 2028**	**31 Dec 2029**	**31 Dec 2030**	**31 Dec 2031**	**31 Dec 2032**	**31 Dec 2033**	**31 Dec 2034**
4	Financial year ending					2026	2027	2028	2029	2030	2031	2032	2033	2034
6	Model column counter	**Constant**	**Unit**	**Total**		10	11	12	13	14	15	16	17	18
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
72	Operations period flag		flag	30		1	1	1	1	1	1	1	1	1
74	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
75	Operations period counter		counter			5	6	7	8	9	10	11	12	13
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2026	31 Dec 2027	31 Dec 2028	31 Dec 2029	31 Dec 2030	31 Dec 2031	31 Dec 2032	31 Dec 2033	31 Dec 2034
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**OpTime**													
2	**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3														
4	Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5														
6	Model column counter	**Constant**	**Unit**	**Total**		19	20	21	22	23	24	25	26	27
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			19	20	21	22	23	24	25	26	27
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2035	01 Jan 2036	01 Jan 2037	01 Jan 2038	01 Jan 2039	01 Jan 2040	01 Jan 2041	01 Jan 2042	01 Jan 2043
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2035	01 Jan 2036	01 Jan 2037	01 Jan 2038	01 Jan 2039	01 Jan 2040	01 Jan 2041	01 Jan 2042	01 Jan 2043
21	Model period ending		date			31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2035	2036	2037	2038	2039	2040	2041	2042	2043
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2035	30 Jun 2036	30 Jun 2037	30 Jun 2038	30 Jun 2039	30 Jun 2040	30 Jun 2041	30 Jun 2042	30 Jun 2043
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 35	31 Dec 36	31 Dec 37	31 Dec 38	31 Dec 39	31 Dec 40	31 Dec 41	31 Dec 42	31 Dec 43
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2035**	**31 Dec 2036**	**31 Dec 2037**	**31 Dec 2038**	**31 Dec 2039**	**31 Dec 2040**	**31 Dec 2041**	**31 Dec 2042**	**31 Dec 2043**
3																		
4					Financial year ending					2035	2036	2037	2038	2039	2040	2041	2042	2043
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		19	20	21	22	23	24	25	26	27
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
72					Operations period flag		flag	30		1	1	1	1	1	1	1	1	1
73																		
74					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
75					Operations period counter		counter			14	15	16	17	18	19	20	21	22
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	1
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2035	31 Dec 2036	31 Dec 2037	31 Dec 2038	31 Dec 2039	31 Dec 2040	31 Dec 2041	31 Dec 2042	31 Dec 2043
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter	**Constant**	**Unit**	**Total**		28	29	30	31	32	33	34	35	36
8	**TIME RULER**													
10	Model column counter		counter			28	29	30	31	32	33	34	35	36
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2044	01 Jan 2045	01 Jan 2046	01 Jan 2047	01 Jan 2048	01 Jan 2049	01 Jan 2050	01 Jan 2051	01 Jan 2052
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2044	01 Jan 2045	01 Jan 2046	01 Jan 2047	01 Jan 2048	01 Jan 2049	01 Jan 2050	01 Jan 2051	01 Jan 2052
21	Model period ending		date			31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2044	2045	2046	2047	2048	2049	2050	2051	2052
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2044	30 Jun 2045	30 Jun 2046	30 Jun 2047	30 Jun 2048	30 Jun 2049	30 Jun 2050	30 Jun 2051	30 Jun 2052
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 44	31 Dec 45	31 Dec 46	31 Dec 47	31 Dec 48	31 Dec 49	31 Dec 50	31 Dec 51	31 Dec 52
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	AK	AL	AM	AN	AO	AP	AQ	AR	AS
2	**Model period ending**					**31 Dec 2044**	**31 Dec 2045**	**31 Dec 2046**	**31 Dec 2047**	**31 Dec 2048**	**31 Dec 2049**	**31 Dec 2050**	**31 Dec 2051**	**31 Dec 2052**
4	Financial year ending					2044	2045	2046	2047	2048	2049	2050	2051	2052
6	Model column counter	**Constant**	**Unit**	**Total**		28	29	30	31	32	33	34	35	36
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
72	Operations period flag		flag	30		1	1	1	1	1	1	1	1	-
74	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
75	Operations period counter		counter			23	24	25	26	27	28	29	30	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	1	1	1	1	1	1	1	1	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	1	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2044	31 Dec 2045	31 Dec 2046	31 Dec 2047	31 Dec 2048	31 Dec 2049	31 Dec 2050	31 Dec 2051	31 Dec 2052
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1	**OpTime**													
2	**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
3														
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
5														
6	Model column counter	**Constant**	**Unit**	**Total**		37	38	39	40	41	42	43	44	45
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			37	38	39	40	41	42	43	44	45
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2053	01 Jan 2054	01 Jan 2055	01 Jan 2056	01 Jan 2057	01 Jan 2058	01 Jan 2059	01 Jan 2060	01 Jan 2061
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2053	01 Jan 2054	01 Jan 2055	01 Jan 2056	01 Jan 2057	01 Jan 2058	01 Jan 2059	01 Jan 2060	01 Jan 2061
21	Model period ending		date			31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2053	2054	2055	2056	2057	2058	2059	2060	2061
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2053	30 Jun 2054	30 Jun 2055	30 Jun 2056	30 Jun 2057	30 Jun 2058	30 Jun 2059	30 Jun 2060	30 Jun 2061
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 53	31 Dec 54	31 Dec 55	31 Dec 56	31 Dec 57	31 Dec 58	31 Dec 59	31 Dec 60	31 Dec 61
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	AT	AU	AV	AW	AX	AY	AZ	BA	BB
2	**Model period ending**					**31 Dec 2053**	**31 Dec 2054**	**31 Dec 2055**	**31 Dec 2056**	**31 Dec 2057**	**31 Dec 2058**	**31 Dec 2059**	**31 Dec 2060**	**31 Dec 2061**
4	Financial year ending					2053	2054	2055	2056	2057	2058	2059	2060	2061
6	Model column counter	**Constant**	**Unit**	**Total**		37	38	39	40	41	42	43	44	45
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2053	31 Dec 2054	31 Dec 2055	31 Dec 2056	31 Dec 2057	31 Dec 2058	31 Dec 2059	31 Dec 2060	31 Dec 2061
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		46	47	48	49	50	51	52	53	54
7																		
8	**TIME RULER**																	
9																		
10					Model column counter		counter			46	47	48	49	50	51	52	53	54
11					First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12					Model column total	200												
13																		
14					1st model column start date - Annual	01 Jan 2017	date											
15					Months per Operations Model period	12	months											
16					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17					Model period beginning		date			01 Jan 2062	01 Jan 2063	01 Jan 2064	01 Jan 2065	01 Jan 2066	01 Jan 2067	01 Jan 2068	01 Jan 2069	01 Jan 2070
18																		
19					Months per Operations Model period	12	months											
20					Model period beginning	-	date	-	-	01 Jan 2062	01 Jan 2063	01 Jan 2064	01 Jan 2065	01 Jan 2066	01 Jan 2067	01 Jan 2068	01 Jan 2069	01 Jan 2070
21					Model period ending		date			31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
22																		
23					1st model column start date - Annual	01 Jan 2017	date											
24					First modelling column financial year number	2017	year #											
25																		
26					First modelling column financial year number	2017	year #											
27					Financial year end month number	12	month #											
28					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
29					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30					Financial year ending		year #			2062	2063	2064	2065	2066	2067	2068	2069	2070
31																		
32					Financial year middle month number	6	month #											
33					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
34					Model period mid-year date	Val, LUEC, PP	date			30 Jun 2062	30 Jun 2063	30 Jun 2064	30 Jun 2065	30 Jun 2066	30 Jun 2067	30 Jun 2068	30 Jun 2069	30 Jun 2070
35																		
36																		
37																		
38																		
39	**FLAGS**																	
40		**General**																
41					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42					Length of Operations period	30	years											
43					Last Operations date	31 Jan 2052	date											
44																		
45					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46					Model period ending	-	date	-	-	31 Dec 62	31 Dec 63	31 Dec 64	31 Dec 65	31 Dec 66	31 Dec 67	31 Dec 68	31 Dec 69	31 Dec 70
47					Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48																		
49		**Pre-COD Period**																
50					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
52					Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53																		
54					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55					Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56					Pre-COD period total	5												
57																		
58					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59					First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60																		
61					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62					Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63																		

	A	B	C	D	E	F	G	H	I	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2062**	**31 Dec 2063**	**31 Dec 2064**	**31 Dec 2065**	**31 Dec 2066**	**31 Dec 2067**	**31 Dec 2068**	**31 Dec 2069**	**31 Dec 2070**
3																		
4					Financial year ending					2062	2063	2064	2065	2066	2067	2068	2069	2070
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		46	47	48	49	50	51	52	53	54
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2062	31 Dec 2063	31 Dec 2064	31 Dec 2065	31 Dec 2066	31 Dec 2067	31 Dec 2068	31 Dec 2069	31 Dec 2070
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
2	**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
4	Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
6	Model column counter	**Constant**	**Unit**	**Total**		55	56	57	58	59	60	61	62	63
8	**TIME RULER**													
10	Model column counter		counter			55	56	57	58	59	60	61	62	63
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2071	01 Jan 2072	01 Jan 2073	01 Jan 2074	01 Jan 2075	01 Jan 2076	01 Jan 2077	01 Jan 2078	01 Jan 2079
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2071	01 Jan 2072	01 Jan 2073	01 Jan 2074	01 Jan 2075	01 Jan 2076	01 Jan 2077	01 Jan 2078	01 Jan 2079
21	Model period ending		date			31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2071	2072	2073	2074	2075	2076	2077	2078	2079
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2071	30 Jun 2072	30 Jun 2073	30 Jun 2074	30 Jun 2075	30 Jun 2076	30 Jun 2077	30 Jun 2078	30 Jun 2079
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 71	31 Dec 72	31 Dec 73	31 Dec 74	31 Dec 75	31 Dec 76	31 Dec 77	31 Dec 78	31 Dec 79
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2071**	**31 Dec 2072**	**31 Dec 2073**	**31 Dec 2074**	**31 Dec 2075**	**31 Dec 2076**	**31 Dec 2077**	**31 Dec 2078**	**31 Dec 2079**
3																		
4					Financial year ending					2071	2072	2073	2074	2075	2076	2077	2078	2079
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		55	56	57	58	59	60	61	62	63
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2071	31 Dec 2072	31 Dec 2073	31 Dec 2074	31 Dec 2075	31 Dec 2076	31 Dec 2077	31 Dec 2078	31 Dec 2079
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

OpTime

	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
2	**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
4	Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
6	Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
8	**TIME RULER**													
10	Model column counter		counter			64	65	66	67	68	69	70	71	72
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2080	01 Jan 2081	01 Jan 2082	01 Jan 2083	01 Jan 2084	01 Jan 2085	01 Jan 2086	01 Jan 2087	01 Jan 2088
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2080	01 Jan 2081	01 Jan 2082	01 Jan 2083	01 Jan 2084	01 Jan 2085	01 Jan 2086	01 Jan 2087	01 Jan 2088
21	Model period ending		date			31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2080	2081	2082	2083	2084	2085	2086	2087	2088
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2080	30 Jun 2081	30 Jun 2082	30 Jun 2083	30 Jun 2084	30 Jun 2085	30 Jun 2086	30 Jun 2087	30 Jun 2088
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 80	31 Dec 81	31 Dec 82	31 Dec 83	31 Dec 84	31 Dec 85	31 Dec 86	31 Dec 87	31 Dec 88
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	BU	BV	BW	BX	BY	BZ	CA	CB	CC
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2080**	**31 Dec 2081**	**31 Dec 2082**	**31 Dec 2083**	**31 Dec 2084**	**31 Dec 2085**	**31 Dec 2086**	**31 Dec 2087**	**31 Dec 2088**
3																		
4					Financial year ending					2080	2081	2082	2083	2084	2085	2086	2087	2088
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		64	65	66	67	68	69	70	71	72
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2080	31 Dec 2081	31 Dec 2082	31 Dec 2083	31 Dec 2084	31 Dec 2085	31 Dec 2086	31 Dec 2087	31 Dec 2088
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
1	**OpTime**													
2	**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
3														
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
5														
6	Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80	81
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			73	74	75	76	77	78	79	80	81
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2089	01 Jan 2090	01 Jan 2091	01 Jan 2092	01 Jan 2093	01 Jan 2094	01 Jan 2095	01 Jan 2096	01 Jan 2097
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2089	01 Jan 2090	01 Jan 2091	01 Jan 2092	01 Jan 2093	01 Jan 2094	01 Jan 2095	01 Jan 2096	01 Jan 2097
21	Model period ending		date			31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2089	2090	2091	2092	2093	2094	2095	2096	2097
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2089	30 Jun 2090	30 Jun 2091	30 Jun 2092	30 Jun 2093	30 Jun 2094	30 Jun 2095	30 Jun 2096	30 Jun 2097
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 89	31 Dec 90	31 Dec 91	31 Dec 92	31 Dec 93	31 Dec 94	31 Dec 95	31 Dec 96	31 Dec 97
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	CD	CE	CF	CG	CH	CI	CJ	CK	CL
2	**Model period ending**					**31 Dec 2089**	**31 Dec 2090**	**31 Dec 2091**	**31 Dec 2092**	**31 Dec 2093**	**31 Dec 2094**	**31 Dec 2095**	**31 Dec 2096**	**31 Dec 2097**
4	Financial year ending					2089	2090	2091	2092	2093	2094	2095	2096	2097
6	Model column counter	**Constant**	**Unit**	**Total**		73	74	75	76	77	78	79	80	81
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2089	31 Dec 2090	31 Dec 2091	31 Dec 2092	31 Dec 2093	31 Dec 2094	31 Dec 2095	31 Dec 2096	31 Dec 2097
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
1	**OpTime**													
2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
3														
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
5														
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			82	83	84	85	86	87	88	89	90
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2098	01 Jan 2099	01 Jan 2100	01 Jan 2101	01 Jan 2102	01 Jan 2103	01 Jan 2104	01 Jan 2105	01 Jan 2106
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2098	01 Jan 2099	01 Jan 2100	01 Jan 2101	01 Jan 2102	01 Jan 2103	01 Jan 2104	01 Jan 2105	01 Jan 2106
21	Model period ending		date			31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2098	2099	2100	2101	2102	2103	2104	2105	2106
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2098	30 Jun 2099	30 Jun 2100	30 Jun 2101	30 Jun 2102	30 Jun 2103	30 Jun 2104	30 Jun 2105	30 Jun 2106
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 98	31 Dec 99	31 Dec 00	31 Dec 01	31 Dec 02	31 Dec 03	31 Dec 04	31 Dec 05	31 Dec 06
47	Days in model period		days	72,683		365	365	365	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	CM	CN	CO	CP	CQ	CR	CS	CT	CU
2	**Model period ending**					**31 Dec 2098**	**31 Dec 2099**	**31 Dec 2100**	**31 Dec 2101**	**31 Dec 2102**	**31 Dec 2103**	**31 Dec 2104**	**31 Dec 2105**	**31 Dec 2106**
4	Financial year ending					2098	2099	2100	2101	2102	2103	2104	2105	2106
6	Model column counter	**Constant**	**Unit**	**Total**		82	83	84	85	86	87	88	89	90
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2098	31 Dec 2099	31 Dec 2100	31 Dec 2101	31 Dec 2102	31 Dec 2103	31 Dec 2104	31 Dec 2105	31 Dec 2106
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
1	**OpTime**													
2	**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
3														
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
5														
6	Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			91	92	93	94	95	96	97	98	99
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2107	01 Jan 2108	01 Jan 2109	01 Jan 2110	01 Jan 2111	01 Jan 2112	01 Jan 2113	01 Jan 2114	01 Jan 2115
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2107	01 Jan 2108	01 Jan 2109	01 Jan 2110	01 Jan 2111	01 Jan 2112	01 Jan 2113	01 Jan 2114	01 Jan 2115
21	Model period ending		date			31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2107	2108	2109	2110	2111	2112	2113	2114	2115
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2107	30 Jun 2108	30 Jun 2109	30 Jun 2110	30 Jun 2111	30 Jun 2112	30 Jun 2113	30 Jun 2114	30 Jun 2115
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 07	31 Dec 08	31 Dec 09	31 Dec 10	31 Dec 11	31 Dec 12	31 Dec 13	31 Dec 14	31 Dec 15
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	CV	CW	CX	CY	CZ	DA	DB	DC	DD
2	**Model period ending**					**31 Dec 2107**	**31 Dec 2108**	**31 Dec 2109**	**31 Dec 2110**	**31 Dec 2111**	**31 Dec 2112**	**31 Dec 2113**	**31 Dec 2114**	**31 Dec 2115**
4	Financial year ending					2107	2108	2109	2110	2111	2112	2113	2114	2115
6	Model column counter	**Constant**	**Unit**	**Total**		91	92	93	94	95	96	97	98	99
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2107	31 Dec 2108	31 Dec 2109	31 Dec 2110	31 Dec 2111	31 Dec 2112	31 Dec 2113	31 Dec 2114	31 Dec 2115
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**OpTime**													
2	**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3														
4	Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5														
6	Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			100	101	102	103	104	105	106	107	108
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2116	01 Jan 2117	01 Jan 2118	01 Jan 2119	01 Jan 2120	01 Jan 2121	01 Jan 2122	01 Jan 2123	01 Jan 2124
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2116	01 Jan 2117	01 Jan 2118	01 Jan 2119	01 Jan 2120	01 Jan 2121	01 Jan 2122	01 Jan 2123	01 Jan 2124
21	Model period ending		date			31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2116	2117	2118	2119	2120	2121	2122	2123	2124
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2116	30 Jun 2117	30 Jun 2118	30 Jun 2119	30 Jun 2120	30 Jun 2121	30 Jun 2122	30 Jun 2123	30 Jun 2124
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19	31 Dec 20	31 Dec 21	31 Dec 22	31 Dec 23	31 Dec 24
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	DE	DF	DG	DH	DI	DJ	DK	DL	DM
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2116**	**31 Dec 2117**	**31 Dec 2118**	**31 Dec 2119**	**31 Dec 2120**	**31 Dec 2121**	**31 Dec 2122**	**31 Dec 2123**	**31 Dec 2124**
3																		
4					Financial year ending					2116	2117	2118	2119	2120	2121	2122	2123	2124
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		100	101	102	103	104	105	106	107	108
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2116	31 Dec 2117	31 Dec 2118	31 Dec 2119	31 Dec 2120	31 Dec 2121	31 Dec 2122	31 Dec 2123	31 Dec 2124
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**OpTime**													
2	**Model period ending**					**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3														
4	Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5														
6	Model column counter	**Constant**	**Unit**	**Total**		109	110	111	112	113	114	115	116	117
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			109	110	111	112	113	114	115	116	117
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2125	01 Jan 2126	01 Jan 2127	01 Jan 2128	01 Jan 2129	01 Jan 2130	01 Jan 2131	01 Jan 2132	01 Jan 2133
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2125	01 Jan 2126	01 Jan 2127	01 Jan 2128	01 Jan 2129	01 Jan 2130	01 Jan 2131	01 Jan 2132	01 Jan 2133
21	Model period ending		date			31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2125	2126	2127	2128	2129	2130	2131	2132	2133
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2125	30 Jun 2126	30 Jun 2127	30 Jun 2128	30 Jun 2129	30 Jun 2130	30 Jun 2131	30 Jun 2132	30 Jun 2133
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 25	31 Dec 26	31 Dec 27	31 Dec 28	31 Dec 29	31 Dec 30	31 Dec 31	31 Dec 32	31 Dec 33
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	DN	DO	DP	DQ	DR	DS	DT	DU	DV
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2125**	**31 Dec 2126**	**31 Dec 2127**	**31 Dec 2128**	**31 Dec 2129**	**31 Dec 2130**	**31 Dec 2131**	**31 Dec 2132**	**31 Dec 2133**
3																		
4					Financial year ending					2125	2126	2127	2128	2129	2130	2131	2132	2133
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		109	110	111	112	113	114	115	116	117
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2125	31 Dec 2126	31 Dec 2127	31 Dec 2128	31 Dec 2129	31 Dec 2130	31 Dec 2131	31 Dec 2132	31 Dec 2133
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**OpTime**													
2	**Model period ending**					**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3														
4	Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5														
6	Model column counter	**Constant**	**Unit**	**Total**		118	119	120	121	122	123	124	125	126
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			118	119	120	121	122	123	124	125	126
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2134	01 Jan 2135	01 Jan 2136	01 Jan 2137	01 Jan 2138	01 Jan 2139	01 Jan 2140	01 Jan 2141	01 Jan 2142
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2134	01 Jan 2135	01 Jan 2136	01 Jan 2137	01 Jan 2138	01 Jan 2139	01 Jan 2140	01 Jan 2141	01 Jan 2142
21	Model period ending		date			31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2134	2135	2136	2137	2138	2139	2140	2141	2142
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2134	30 Jun 2135	30 Jun 2136	30 Jun 2137	30 Jun 2138	30 Jun 2139	30 Jun 2140	30 Jun 2141	30 Jun 2142
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 34	31 Dec 35	31 Dec 36	31 Dec 37	31 Dec 38	31 Dec 39	31 Dec 40	31 Dec 41	31 Dec 42
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	DW	DX	DY	DZ	EA	EB	EC	ED	EE
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2134**	**31 Dec 2135**	**31 Dec 2136**	**31 Dec 2137**	**31 Dec 2138**	**31 Dec 2139**	**31 Dec 2140**	**31 Dec 2141**	**31 Dec 2142**
3																		
4					Financial year ending					2134	2135	2136	2137	2138	2139	2140	2141	2142
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		118	119	120	121	122	123	124	125	126
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2134	31 Dec 2135	31 Dec 2136	31 Dec 2137	31 Dec 2138	31 Dec 2139	31 Dec 2140	31 Dec 2141	31 Dec 2142
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
1	**OpTime**													
2	**Model period ending**					**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
3														
4	Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
5														
6	Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			127	128	129	130	131	132	133	134	135
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2143	01 Jan 2144	01 Jan 2145	01 Jan 2146	01 Jan 2147	01 Jan 2148	01 Jan 2149	01 Jan 2150	01 Jan 2151
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2143	01 Jan 2144	01 Jan 2145	01 Jan 2146	01 Jan 2147	01 Jan 2148	01 Jan 2149	01 Jan 2150	01 Jan 2151
21	Model period ending		date			31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2143	2144	2145	2146	2147	2148	2149	2150	2151
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2143	30 Jun 2144	30 Jun 2145	30 Jun 2146	30 Jun 2147	30 Jun 2148	30 Jun 2149	30 Jun 2150	30 Jun 2151
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 43	31 Dec 44	31 Dec 45	31 Dec 46	31 Dec 47	31 Dec 48	31 Dec 49	31 Dec 50	31 Dec 51
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	EF	EG	EH	EI	EJ	EK	EL	EM	EN
2	**Model period ending**					**31 Dec 2143**	**31 Dec 2144**	**31 Dec 2145**	**31 Dec 2146**	**31 Dec 2147**	**31 Dec 2148**	**31 Dec 2149**	**31 Dec 2150**	**31 Dec 2151**
4	Financial year ending					2143	2144	2145	2146	2147	2148	2149	2150	2151
6	Model column counter	**Constant**	**Unit**	**Total**		127	128	129	130	131	132	133	134	135
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2143	31 Dec 2144	31 Dec 2145	31 Dec 2146	31 Dec 2147	31 Dec 2148	31 Dec 2149	31 Dec 2150	31 Dec 2151
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**OpTime**													
2	**Model period ending**					**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3														
4	Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5														
6	Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			136	137	138	139	140	141	142	143	144
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2152	01 Jan 2153	01 Jan 2154	01 Jan 2155	01 Jan 2156	01 Jan 2157	01 Jan 2158	01 Jan 2159	01 Jan 2160
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2152	01 Jan 2153	01 Jan 2154	01 Jan 2155	01 Jan 2156	01 Jan 2157	01 Jan 2158	01 Jan 2159	01 Jan 2160
21	Model period ending		date			31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2152	2153	2154	2155	2156	2157	2158	2159	2160
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2152	30 Jun 2153	30 Jun 2154	30 Jun 2155	30 Jun 2156	30 Jun 2157	30 Jun 2158	30 Jun 2159	30 Jun 2160
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 52	31 Dec 53	31 Dec 54	31 Dec 55	31 Dec 56	31 Dec 57	31 Dec 58	31 Dec 59	31 Dec 60
47	Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	EO	EP	EQ	ER	ES	ET	EU	EV	EW
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2152**	**31 Dec 2153**	**31 Dec 2154**	**31 Dec 2155**	**31 Dec 2156**	**31 Dec 2157**	**31 Dec 2158**	**31 Dec 2159**	**31 Dec 2160**
3																		
4					Financial year ending					2152	2153	2154	2155	2156	2157	2158	2159	2160
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		136	137	138	139	140	141	142	143	144
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68					**Operations Period**													
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84					**Revenue Contract or Regulated Period**													
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2152	31 Dec 2153	31 Dec 2154	31 Dec 2155	31 Dec 2156	31 Dec 2157	31 Dec 2158	31 Dec 2159	31 Dec 2160
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**OpTime**													
2	**Model period ending**					**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3														
4	Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5														
6	Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			145	146	147	148	149	150	151	152	153
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2161	01 Jan 2162	01 Jan 2163	01 Jan 2164	01 Jan 2165	01 Jan 2166	01 Jan 2167	01 Jan 2168	01 Jan 2169
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2161	01 Jan 2162	01 Jan 2163	01 Jan 2164	01 Jan 2165	01 Jan 2166	01 Jan 2167	01 Jan 2168	01 Jan 2169
21	Model period ending		date			31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2161	2162	2163	2164	2165	2166	2167	2168	2169
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2161	30 Jun 2162	30 Jun 2163	30 Jun 2164	30 Jun 2165	30 Jun 2166	30 Jun 2167	30 Jun 2168	30 Jun 2169
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 61	31 Dec 62	31 Dec 63	31 Dec 64	31 Dec 65	31 Dec 66	31 Dec 67	31 Dec 68	31 Dec 69
47	Days in model period		days	72,683		365	365	365	366	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	EX	EY	EZ	FA	FB	FC	FD	FE	FF
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2161**	**31 Dec 2162**	**31 Dec 2163**	**31 Dec 2164**	**31 Dec 2165**	**31 Dec 2166**	**31 Dec 2167**	**31 Dec 2168**	**31 Dec 2169**
3																		
4					Financial year ending					2161	2162	2163	2164	2165	2166	2167	2168	2169
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		145	146	147	148	149	150	151	152	153
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2161	31 Dec 2162	31 Dec 2163	31 Dec 2164	31 Dec 2165	31 Dec 2166	31 Dec 2167	31 Dec 2168	31 Dec 2169
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
1	**OpTime**													
2	**Model period ending**					**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
3														
4	Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
5														
6	Model column counter	**Constant**	**Unit**	**Total**		154	155	156	157	158	159	160	161	162
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			154	155	156	157	158	159	160	161	162
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2170	01 Jan 2171	01 Jan 2172	01 Jan 2173	01 Jan 2174	01 Jan 2175	01 Jan 2176	01 Jan 2177	01 Jan 2178
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2170	01 Jan 2171	01 Jan 2172	01 Jan 2173	01 Jan 2174	01 Jan 2175	01 Jan 2176	01 Jan 2177	01 Jan 2178
21	Model period ending		date			31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2170	2171	2172	2173	2174	2175	2176	2177	2178
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2170	30 Jun 2171	30 Jun 2172	30 Jun 2173	30 Jun 2174	30 Jun 2175	30 Jun 2176	30 Jun 2177	30 Jun 2178
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 70	31 Dec 71	31 Dec 72	31 Dec 73	31 Dec 74	31 Dec 75	31 Dec 76	31 Dec 77	31 Dec 78
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	FG	FH	FI	FJ	FK	FL	FM	FN	FO
2	**Model period ending**					**31 Dec 2170**	**31 Dec 2171**	**31 Dec 2172**	**31 Dec 2173**	**31 Dec 2174**	**31 Dec 2175**	**31 Dec 2176**	**31 Dec 2177**	**31 Dec 2178**
4	Financial year ending					2170	2171	2172	2173	2174	2175	2176	2177	2178
6	Model column counter	**Constant**	**Unit**	**Total**		154	155	156	157	158	159	160	161	162
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2170	31 Dec 2171	31 Dec 2172	31 Dec 2173	31 Dec 2174	31 Dec 2175	31 Dec 2176	31 Dec 2177	31 Dec 2178
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**OpTime**													
2	**Model period ending**					**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3														
4	Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5														
6	Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			163	164	165	166	167	168	169	170	171
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2179	01 Jan 2180	01 Jan 2181	01 Jan 2182	01 Jan 2183	01 Jan 2184	01 Jan 2185	01 Jan 2186	01 Jan 2187
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2179	01 Jan 2180	01 Jan 2181	01 Jan 2182	01 Jan 2183	01 Jan 2184	01 Jan 2185	01 Jan 2186	01 Jan 2187
21	Model period ending		date			31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2179	2180	2181	2182	2183	2184	2185	2186	2187
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2179	30 Jun 2180	30 Jun 2181	30 Jun 2182	30 Jun 2183	30 Jun 2184	30 Jun 2185	30 Jun 2186	30 Jun 2187
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 79	31 Dec 80	31 Dec 81	31 Dec 82	31 Dec 83	31 Dec 84	31 Dec 85	31 Dec 86	31 Dec 87
47	Days in model period		days	72,683		365	366	365	365	365	366	365	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

	A	B	C	D	E	F	G	H	I	FP	FQ	FR	FS	FT	FU	FV	FW	FX
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2179**	**31 Dec 2180**	**31 Dec 2181**	**31 Dec 2182**	**31 Dec 2183**	**31 Dec 2184**	**31 Dec 2185**	**31 Dec 2186**	**31 Dec 2187**
3																		
4					Financial year ending					2179	2180	2181	2182	2183	2184	2185	2186	2187
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		163	164	165	166	167	168	169	170	171
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2179	31 Dec 2180	31 Dec 2181	31 Dec 2182	31 Dec 2183	31 Dec 2184	31 Dec 2185	31 Dec 2186	31 Dec 2187
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		172	173	174	175	176	177	178	179	180
7																		
8	**TIME RULER**																	
9																		
10					Model column counter		counter			172	173	174	175	176	177	178	179	180
11					First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12					Model column total	200												
13																		
14					1st model column start date - Annual	01 Jan 2017	date											
15					Months per Operations Model period	12	months											
16					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17					Model period beginning		date			01 Jan 2188	01 Jan 2189	01 Jan 2190	01 Jan 2191	01 Jan 2192	01 Jan 2193	01 Jan 2194	01 Jan 2195	01 Jan 2196
18																		
19					Months per Operations Model period	12	months											
20					Model period beginning	-	date	-	-	01 Jan 2188	01 Jan 2189	01 Jan 2190	01 Jan 2191	01 Jan 2192	01 Jan 2193	01 Jan 2194	01 Jan 2195	01 Jan 2196
21					Model period ending		date			31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
22																		
23					1st model column start date - Annual	01 Jan 2017	date											
24					First modelling column financial year number	2017	year #											
25																		
26					First modelling column financial year number	2017	year #											
27					Financial year end month number	12	month #											
28					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
29					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30					Financial year ending		year #			2188	2189	2190	2191	2192	2193	2194	2195	2196
31																		
32					Financial year middle month number	6	month #											
33					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
34					Model period mid-year date	Val, LUEC, PP	date			30 Jun 2188	30 Jun 2189	30 Jun 2190	30 Jun 2191	30 Jun 2192	30 Jun 2193	30 Jun 2194	30 Jun 2195	30 Jun 2196
35																		
36																		
37																		
38																		
39	**FLAGS**																	
40		**General**																
41					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42					Length of Operations period	30	years											
43					Last Operations date	31 Jan 2052	date											
44																		
45					First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46					Model period ending	-	date	-	-	31 Dec 88	31 Dec 89	31 Dec 90	31 Dec 91	31 Dec 92	31 Dec 93	31 Dec 94	31 Dec 95	31 Dec 96
47					Days in model period		days	72,683		366	365	365	365	366	365	365	365	366
48																		
49		**Pre-COD Period**																
50					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
52					Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53																		
54					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55					Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56					Pre-COD period total	5												
57																		
58					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59					First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60																		
61					Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62					Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63																		

	A	B	C	D	E	F	G	H	I	FY	FZ	GA	GB	GC	GD	GE	GF	GG
1	**OpTime**																	
2					**Model period ending**					**31 Dec 2188**	**31 Dec 2189**	**31 Dec 2190**	**31 Dec 2191**	**31 Dec 2192**	**31 Dec 2193**	**31 Dec 2194**	**31 Dec 2195**	**31 Dec 2196**
3																		
4					Financial year ending					2188	2189	2190	2191	2192	2193	2194	2195	2196
5																		
6					Model column counter	**Constant**	**Unit**	**Total**		172	173	174	175	176	177	178	179	180
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
66					COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
67																		
68	**Operations Period**																	
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70					Last Operations date	31 Jan 2052	date											
71					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
72					Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
73																		
74					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75					Operations period counter		counter			-	-	-	-	-	-	-	-	-
76					Operations period total	30												
77																		
78					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79					First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
80																		
81					Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82					Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
83																		
84	**Revenue Contract or Regulated Period**																	
85																		
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87					Length of Regulation period	-	years											
88					End of Regulation Date	31 Jan 2022	date											
89																		
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91					End of Regulation Date	31 Jan 2022	date											
92					Model period ending	-	date	-	-	31 Dec 2188	31 Dec 2189	31 Dec 2190	31 Dec 2191	31 Dec 2192	31 Dec 2193	31 Dec 2194	31 Dec 2195	31 Dec 2196
93					Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94					Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
1	**OpTime**													
2	**Model period ending**					**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
3														
4	Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
5														
6	Model column counter	**Constant**	**Unit**	**Total**		181	182	183	184	185	186	187	188	189
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			181	182	183	184	185	186	187	188	189
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2197	01 Jan 2198	01 Jan 2199	01 Jan 2200	01 Jan 2201	01 Jan 2202	01 Jan 2203	01 Jan 2204	01 Jan 2205
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2197	01 Jan 2198	01 Jan 2199	01 Jan 2200	01 Jan 2201	01 Jan 2202	01 Jan 2203	01 Jan 2204	01 Jan 2205
21	Model period ending		date			31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2197	2198	2199	2200	2201	2202	2203	2204	2205
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2197	30 Jun 2198	30 Jun 2199	30 Jun 2200	30 Jun 2201	30 Jun 2202	30 Jun 2203	30 Jun 2204	30 Jun 2205
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 97	31 Dec 98	31 Dec 99	31 Dec 00	31 Dec 01	31 Dec 02	31 Dec 03	31 Dec 04	31 Dec 05
47	Days in model period		days	72,683		365	365	365	365	365	365	365	366	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

OpTime

	E	F	G	H	I	GH	GI	GJ	GK	GL	GM	GN	GO	GP
2	**Model period ending**					**31 Dec 2197**	**31 Dec 2198**	**31 Dec 2199**	**31 Dec 2200**	**31 Dec 2201**	**31 Dec 2202**	**31 Dec 2203**	**31 Dec 2204**	**31 Dec 2205**
4	Financial year ending					2197	2198	2199	2200	2201	2202	2203	2204	2205
6	Model column counter	**Constant**	**Unit**	**Total**		181	182	183	184	185	186	187	188	189
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2197	31 Dec 2198	31 Dec 2199	31 Dec 2200	31 Dec 2201	31 Dec 2202	31 Dec 2203	31 Dec 2204	31 Dec 2205
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
1	**OpTime**													
2	**Model period ending**					**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
3														
4	Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
5														
6	Model column counter	**Constant**	**Unit**	**Total**		190	191	192	193	194	195	196	197	198
7														
8	**TIME RULER**													
9														
10	Model column counter		counter			190	191	192	193	194	195	196	197	198
11	First model column flag		flag	1		-	-	-	-	-	-	-	-	-
12	Model column total	200												
13														
14	1st model column start date - Annual	01 Jan 2017	date											
15	Months per Operations Model period	12	months											
16	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
17	Model period beginning		date			01 Jan 2206	01 Jan 2207	01 Jan 2208	01 Jan 2209	01 Jan 2210	01 Jan 2211	01 Jan 2212	01 Jan 2213	01 Jan 2214
18														
19	Months per Operations Model period	12	months											
20	Model period beginning	-	date	-	-	01 Jan 2206	01 Jan 2207	01 Jan 2208	01 Jan 2209	01 Jan 2210	01 Jan 2211	01 Jan 2212	01 Jan 2213	01 Jan 2214
21	Model period ending		date			31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
22														
23	1st model column start date - Annual	01 Jan 2017	date											
24	First modelling column financial year number	2017	year #											
25														
26	First modelling column financial year number	2017	year #											
27	Financial year end month number	12	month #											
28	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
29	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
30	Financial year ending		year #			2206	2207	2208	2209	2210	2211	2212	2213	2214
31														
32	Financial year middle month number	6	month #											
33	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2206	30 Jun 2207	30 Jun 2208	30 Jun 2209	30 Jun 2210	30 Jun 2211	30 Jun 2212	30 Jun 2213	30 Jun 2214
35														
36														
37														
38														
39	**FLAGS**													
40	**General**													
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
42	Length of Operations period	30	years											
43	Last Operations date	31 Jan 2052	date											
44														
45	First model column flag	-	flag	1	-	-	-	-	-	-	-	-	-	-
46	Model period ending	-	date	-	-	31 Dec 06	31 Dec 07	31 Dec 08	31 Dec 09	31 Dec 10	31 Dec 11	31 Dec 12	31 Dec 13	31 Dec 14
47	Days in model period		days	72,683		365	365	366	365	365	365	366	365	365
48														
49	**Pre-COD Period**													
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
51	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
52	Pre-COD period flag		flag	5		-	-	-	-	-	-	-	-	-
53														
54	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
55	Pre-COD period counter		counter			-	-	-	-	-	-	-	-	-
56	Pre-COD period total	5												
57														
58	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
59	First Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
60														
61	Pre-COD period flag	-	flag	5	-	-	-	-	-	-	-	-	-	-
62	Last Pre-COD period column flag		flag	1		-	-	-	-	-	-	-	-	-
63														

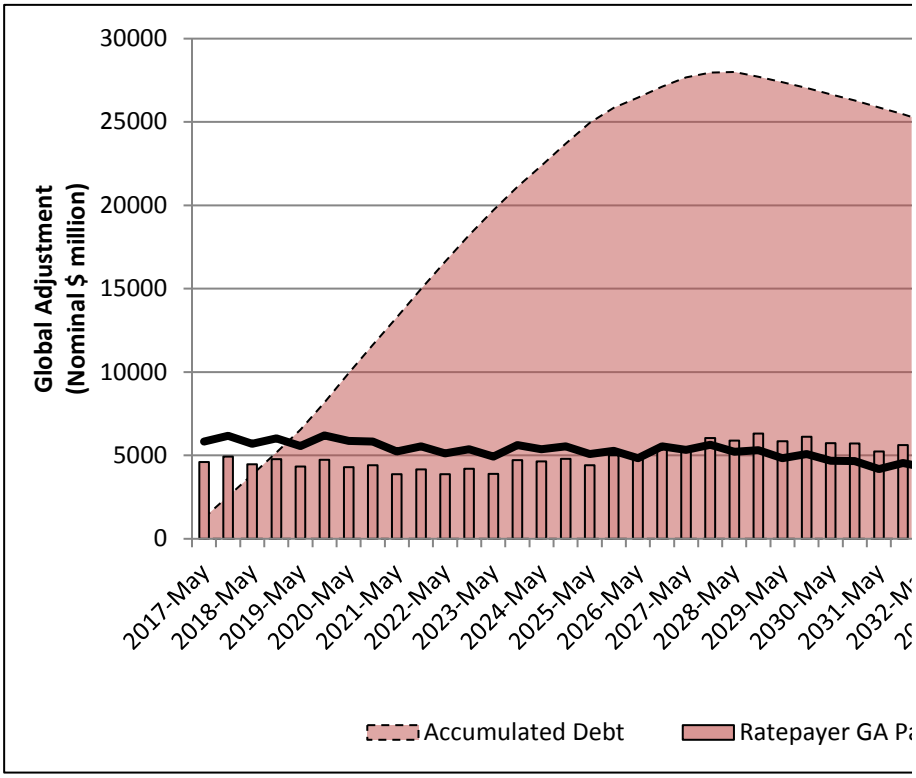
OpTime

	E	F	G	H	I	GQ	GR	GS	GT	GU	GV	GW	GX	GY
2	**Model period ending**					**31 Dec 2206**	**31 Dec 2207**	**31 Dec 2208**	**31 Dec 2209**	**31 Dec 2210**	**31 Dec 2211**	**31 Dec 2212**	**31 Dec 2213**	**31 Dec 2214**
4	Financial year ending					2206	2207	2208	2209	2210	2211	2212	2213	2214
6	Model column counter	**Constant**	**Unit**	**Total**		190	191	192	193	194	195	196	197	198
64	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
65	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
66	COD / initial balance sheet flag		flag	1		-	-	-	-	-	-	-	-	-
68	**Operations Period**													
69	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
70	Last Operations date	31 Jan 2052	date											
71	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
72	Operations period flag		flag	30		-	-	-	-	-	-	-	-	-
74	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
75	Operations period counter		counter			-	-	-	-	-	-	-	-	-
76	Operations period total	30												
78	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
79	First Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
81	Operations period flag	-	flag	30	-	-	-	-	-	-	-	-	-	-
82	Last Operations period column flag		flag	1		-	-	-	-	-	-	-	-	-
84	**Revenue Contract or Regulated Period**													
86	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
87	Length of Regulation period	-	years											
88	End of Regulation Date	31 Jan 2022	date											
90	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date											
91	End of Regulation Date	31 Jan 2022	date											
92	Model period ending	-	date	-	-	31 Dec 2206	31 Dec 2207	31 Dec 2208	31 Dec 2209	31 Dec 2210	31 Dec 2211	31 Dec 2212	31 Dec 2213	31 Dec 2214
93	Regulated Period flag		flag	-		-	-	-	-	-	-	-	-	-
94	Regulated Period Counter		counter			-	-	-	-	-	-	-	-	-

	E	F	G	H	I	GZ	HA
1	**OpTime**						
2	**Model period ending**					**31 Dec 2215**	**31 Dec 2216**
3							
4	Financial year ending					2215	2216
5							
6	Model column counter	**Constant**	**Unit**	**Total**		199	200
7							
8	**TIME RULER**						
9							
10	Model column counter		counter			199	200
11	First model column flag		flag	1		-	-
12	Model column total	200					
13							
14	1st model column start date - Annual	01 Jan 2017	date				
15	Months per Operations Model period	12	months				
16	First model column flag	-	flag	1	-	-	-
17	Model period beginning		date			01 Jan 2215	01 Jan 2216
18							
19	Months per Operations Model period	12	months				
20	Model period beginning	-	date	-	-	01 Jan 2215	01 Jan 2216
21	Model period ending		date			31 Dec 2215	31 Dec 2216
22							
23	1st model column start date - Annual	01 Jan 2017	date				
24	First modelling column financial year number	2017	year #				
25							
26	First modelling column financial year number	2017	year #				
27	Financial year end month number	12	month #				
28	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
29	First model column flag	-	flag	1	-	-	-
30	Financial year ending		year #			2215	2216
31							
32	Financial year middle month number	6	month #				
33	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
34	Model period mid-year date	Val, LUEC, PP	date			30 Jun 2215	30 Jun 2216
35							
36							
37							
38							
39	**FLAGS**						
40	**General**						
41	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
42	Length of Operations period	30	years				
43	Last Operations date	31 Jan 2052	date				
44							
45	First model column flag	-	flag	1	-	-	-
46	Model period ending	-	date	-	-	31 Dec 15	31 Dec 16
47	Days in model period		days	72,683		365	366
48							
49	**Pre-COD Period**						
50	Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
51	Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
52	Pre-COD period flag		flag	5		-	-
53							
54	Pre-COD period flag	-	flag	5	-	-	-
55	Pre-COD period counter		counter			-	-
56	Pre-COD period total	5					
57							
58	Pre-COD period flag	-	flag	5	-	-	-
59	First Pre-COD period column flag		flag	1		-	-
60							
61	Pre-COD period flag	-	flag	5	-	-	-
62	Last Pre-COD period column flag		flag	1		-	
63							

	A	B	C	D	E	F	G	H	I	GZ	HA
1	**OpTime**										
2					**Model period ending**					**31 Dec 2215**	**31 Dec 2216**
3											
4					Financial year ending					2215	2216
5											
6					Model column counter	**Constant**	**Unit**	**Total**		199	200
64					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
65					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
66					COD / initial balance sheet flag		flag	1		-	-
67											
68					**Operations Period**						
69					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
70					Last Operations date	31 Jan 2052	date				
71					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
72					Operations period flag		flag	30		-	-
73											
74					Operations period flag	-	flag	30	-	-	-
75					Operations period counter		counter			-	-
76					Operations period total	30					
77											
78					Operations period flag	-	flag	30	-	-	-
79					First Operations period column flag		flag	1		-	-
80											
81					Operations period flag	-	flag	30	-	-	-
82					Last Operations period column flag		flag	1		-	
83											
84					**Revenue Contract or Regulated Period**						
85											
86					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
87					Length of Regulation period	-	years				
88					End of Regulation Date	31 Jan 2022	date				
89											
90					Commercial Operation Date/1st Balance Sheet Date	31 Jan 2022	date				
91					End of Regulation Date	31 Jan 2022	date				
92					Model period ending	-	date	-	-	31 Dec 2215	31 Dec 2216
93					Regulated Period flag		flag	-		-	-
94					Regulated Period Counter		counter			-	-

Change in bill with OFHP relative to bill without OFHP in 2017
YoY Increase in bill with OFHP 2018-2021
YoY Increase in bill with OFHP 2022+
Maximum increase in bill with OFHP above bill without OFHP in any year
Year to pay off debt
Class to which savings/costs accrue
Annual interest rate (nominal)
Amount of debt in November of final year ($ million, should be zero)
Maximum debt ($ million)
Total Interest Cost ($ million)

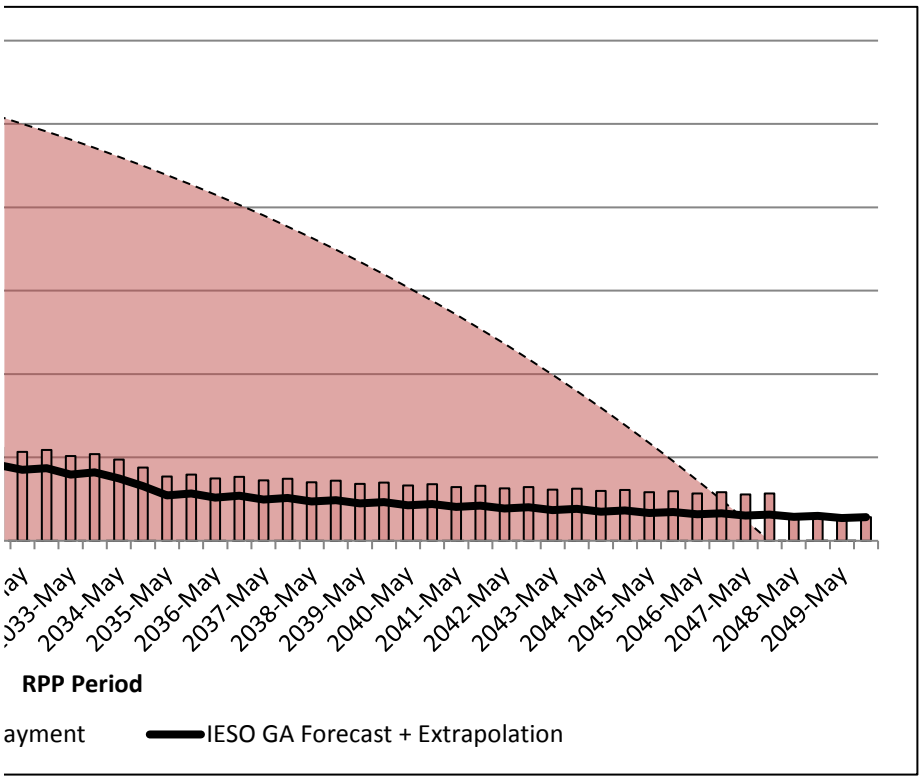


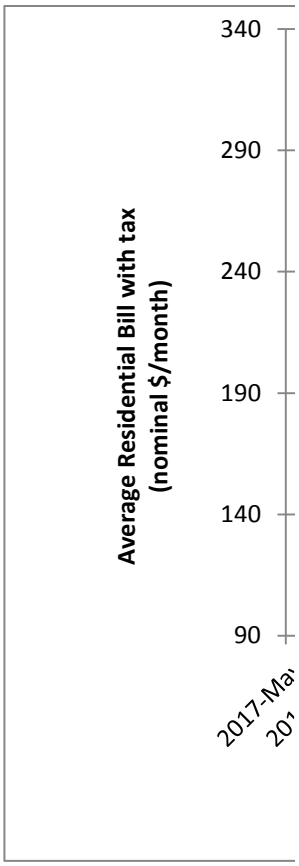
Global Impacts
$ nominal million
IESO GA Forecast + Extrapolation
Ratepayer GA Payment
Accumulated Debt
Interest on debt in previous period

Residential Bills (assuming 750 kWh/month)
nominal $/month
No OFHP
With 8% Rebate Only
With OFHP (GA financing, rebate, tax-basing)
Change from bill with no OFHP

Change from bill with no OFHP but with 8% rebate
Period-over-period change in bill with OFHP

-0.25		
0.02		
0.063423331	<-----	Change this so that maximum debt (C12) is the maximum amount that can be bor
0.025694809	<-----	Change this so that the amount of debt (shown in C11) in the final year (set in C6)
2047		
RPP Eligible		
0.05		
0		
28000		
26213		



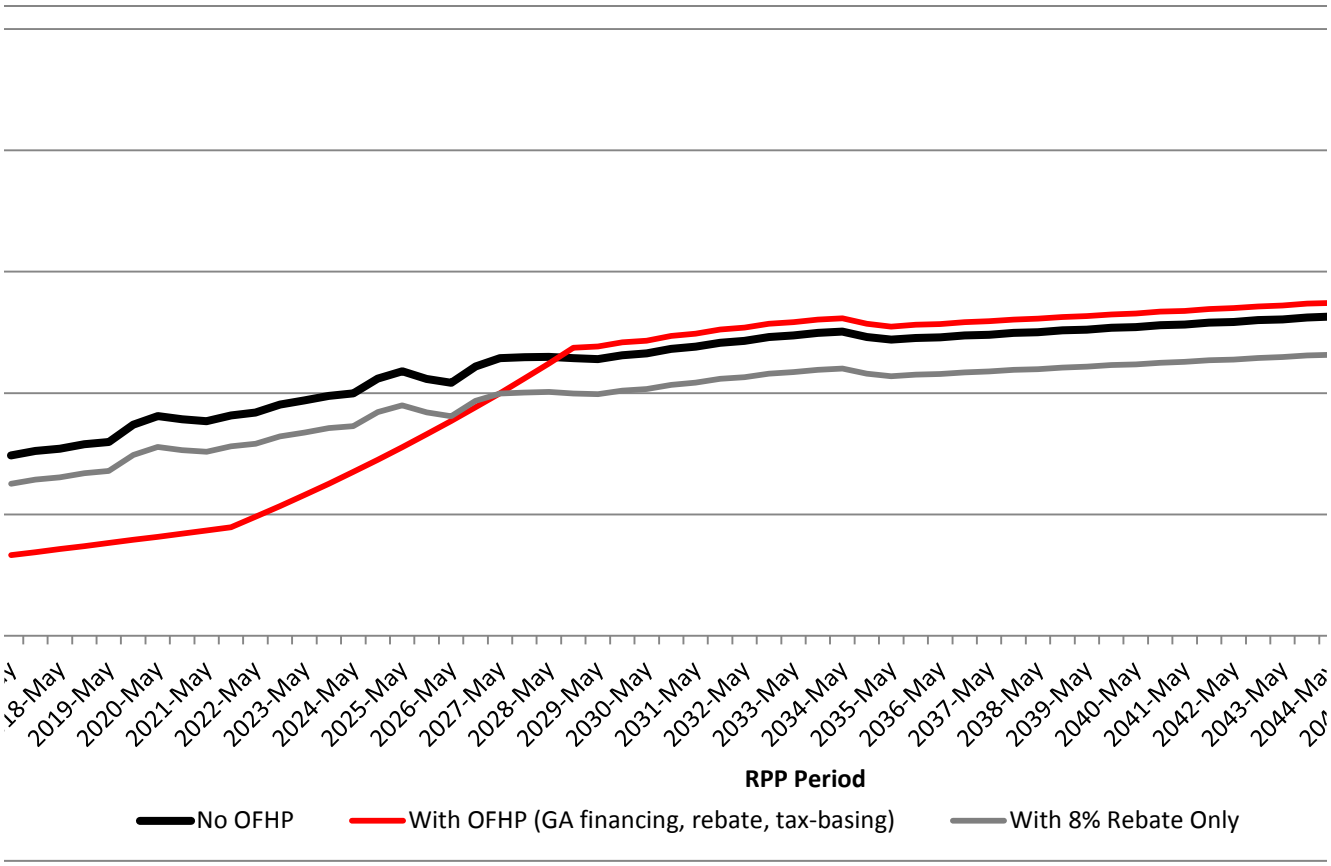


2017-May	2017-Nov	2018-May	2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov
5832	6172	5706	6029	5570	6199	5867	5835
4596	4926	4469	4787	4339	4738	4303	4403
1267	2544	3846	5185	6547	8174	9944	11627
0	32	64	97	131	165	206	251

2017-May	2017-Nov	2018-May	2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov
164	166	167	169	170	177	181	179
153	154	155	157	158	165	168	167
123	124	126	127	128	130	131	132
-25.0%	-25.1%	-24.7%	-24.8%	-24.5%	-26.8%	-27.6%	-26.3%

-19.3%	-19.4%	-19.0%	-19.1%	-18.8%	-21.3%	-22.0%	-20.6%
	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

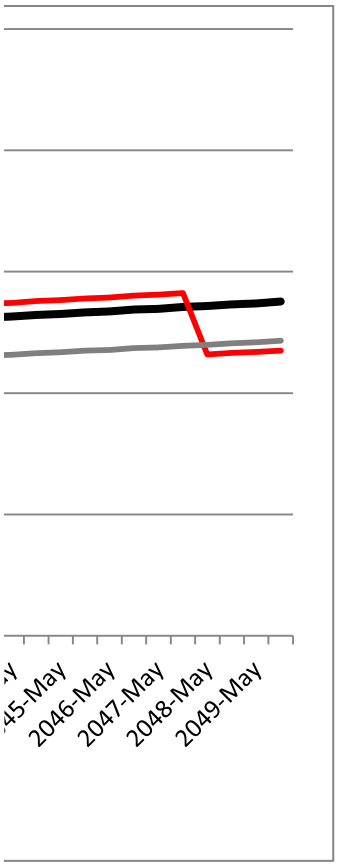
rrowed (e.g. $28 billion for OPG)
) is zero



2021-May	2021-Nov	2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
5228	5541	5127	5369	4939	5616	5365	5551
3875	4162	3883	4195	3893	4712	4635	4795
13274	14988	16611	18204	19710	21112	22376	23697
294	335	379	420	460	498	533	565

2021-May	2021-Nov	2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
178	181	182	185	187	189	190	196
166	168	169	172	174	176	176	182
133	135	139	143	148	153	158	163
-25.2%	-25.5%	-23.6%	-22.6%	-20.8%	-19.2%	-17.0%	-17.1%

-19.5%	-19.8%	-17.8%	-16.7%	-14.8%	-13.0%	-10.7%	-10.7%
1.0%	1.0%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%



2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov
5076	5277	4838	5551	5324	5640	5216	5317
4420	5004	4878	5566	5464	6036	5892	6304
24951	25855	26467	27121	27666	27969	28000	27721
599	630	653	669	685	699	707	707

2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov
199	196	194	201	204	205	205	204
185	182	181	187	190	190	190	190
168	173	179	184	190	196	202	209
-15.7%	-11.7%	-8.1%	-8.4%	-7.0%	-4.2%	-1.3%	2.1%

-9.3%	-4.9%	-1.1%	-1.4%	0.1%	3.0%	6.2%	9.9%
3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%

2029-May	2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
4826	5082	4687	4658	4173	4540	4253	4362
5861	6121	5742	5714	5241	5614	5342	5456
27386	27038	26667	26285	25880	25460	25015	24553
700	692	683	674	664	654	643	632

2029-May	2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
204	206	206	208	209	211	212	213
190	191	192	193	194	196	197	198
209	211	212	214	214	216	217	219
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.3%	0.8%	0.4%	0.9%	0.4%	0.8%	0.4%	0.7%

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May	2036-Nov
3972	4096	3740	3279	2730	2836	2598	2699
5081	5207	4865	4397	3858	3962	3737	3837
24065	23562	23032	22496	21937	21365	20766	20153
620	608	595	582	568	554	540	525

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May	2036-Nov
214	215	215	213	212	213	213	214
199	200	200	198	197	198	198	199
219	220	221	219	217	218	219	219
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.3%	0.5%	0.2%	-1.0%	-0.5%	0.3%	0.2%	0.3%

2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov
2473	2569	2353	2444	2240	2326	2132	2214
3624	3718	3516	3606	3414	3500	3318	3399
19511	18855	18168	17466	16732	15982	15199	14398
509	493	476	459	441	423	404	384

2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov
214	215	215	216	216	217	217	218
199	200	200	201	201	202	202	202
220	220	221	221	222	222	223	224
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	0.2%	0.3%

2041-May	2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
2029	2107	1931	2005	1837	1909	1749	1816
3228	3305	3142	3215	3061	3131	2985	3052
13562	12707	11817	10905	9957	8986	7976	6942
364	343	321	299	275	252	227	201

2041-May	2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
218	219	219	220	220	221	221	222
203	203	204	204	205	205	206	206
224	225	225	226	226	227	227	228
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	0.2%	0.3%

2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov	2048-May	2048-Nov
1664	1729	1584	1645	1507	1566	1434	1490
2914	2977	2846	2906	2783	2840	1434	1490
5868	4768	3626	2456	1243	0	0	0
175	148	120	92	62	31	0	0

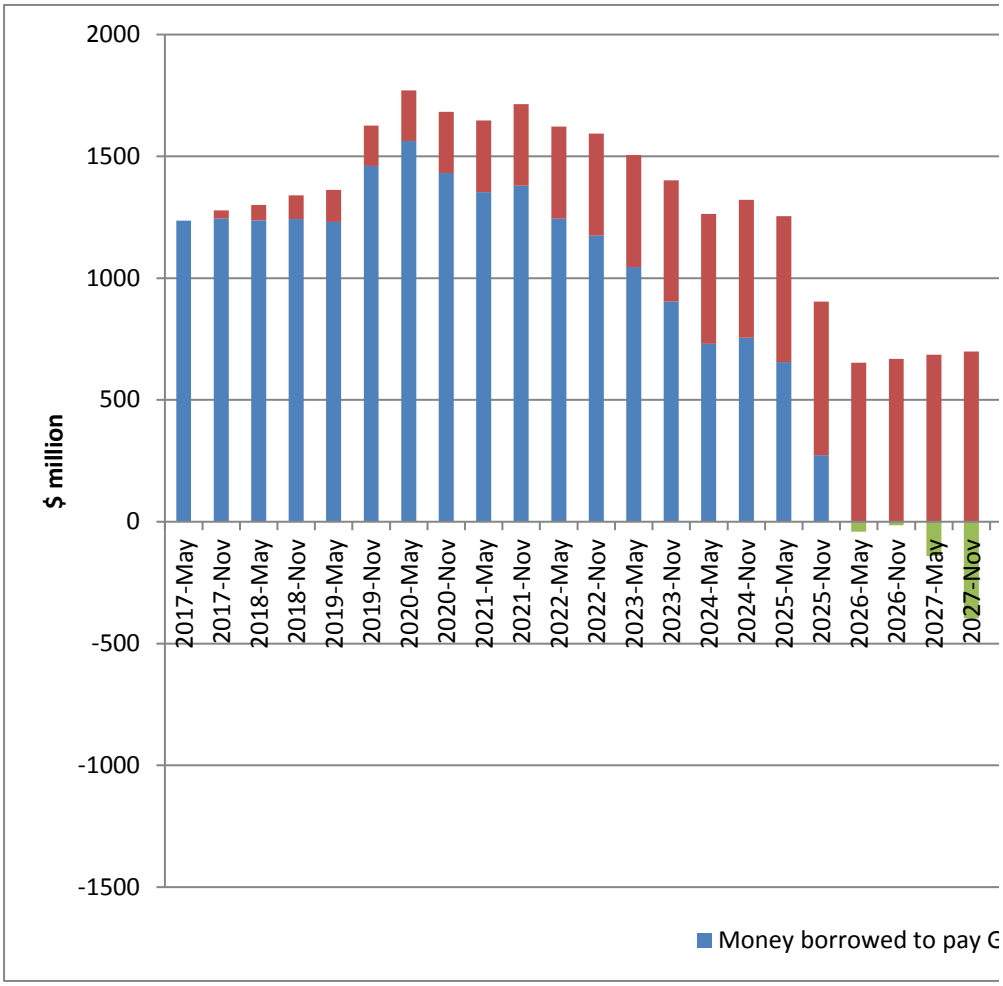
2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov	2048-May	2048-Nov
223	223	224	224	225	225	226	227
207	207	208	209	209	210	210	211
228	229	229	230	231	231	206	207
2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	-8.8%	-8.8%

10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	-1.9%	-1.9%
0.2%	0.3%	0.2%	0.3%	0.2%	0.3%	-11.0%	0.3%

2049-May	2049-Nov
1365	1418
1365	1418
0	0
0	0

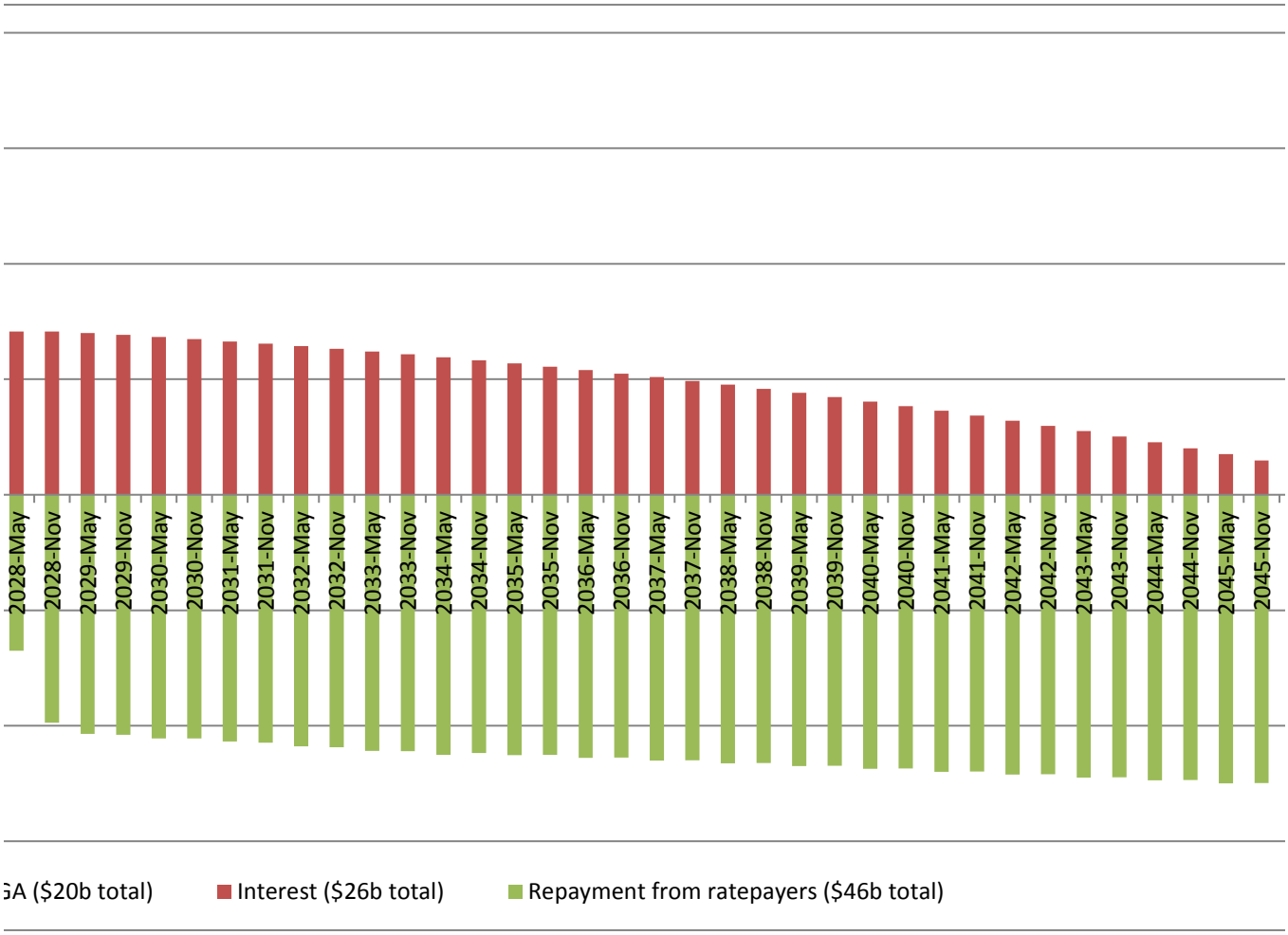
2049-May	2049-Nov
227	228
211	212
207	208
-8.8%	-8.8%

-1.9%	-1.9%
0.2%	0.3%

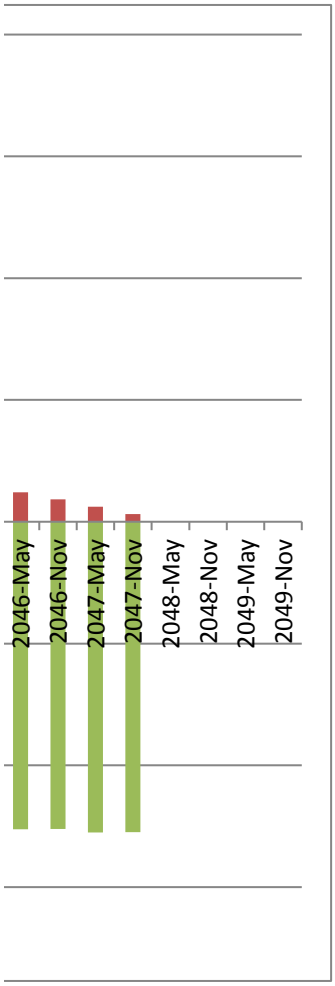


$ million

	2017-May	2017-Nov	2018-May
Money borrowed to pay GA ($20b total)	1236	1246	1237
Interest ($26b total)		32	64
Repayment from ratepayers ($46b total)			



2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov	2021-May	2021-Nov
1242	1231	1461	1564	1432	1353	1379
97	131	165	206	251	294	335



2022-May	2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov
1244	1174	1046	904	730	756
379	420	460	498	533	565

2025-May	2025-Nov	2026-May	2026-Nov	2027-May	2027-Nov
656	273				
599	630	653	669	685	699
		-41	-15	-140	-396

2028-May	2028-Nov	2029-May	2029-Nov	2030-May	2030-Nov	2031-May
707	707	700	692	683	674	664
-675	-987	-1035	-1040	-1055	-1055	-1069

2031-Nov	2032-May	2032-Nov	2033-May	2033-Nov	2034-May	2034-Nov
654	643	632	620	608	595	582
-1074	-1089	-1093	-1109	-1111	-1125	-1118

2035-May	2035-Nov	2036-May	2036-Nov	2037-May	2037-Nov
568	554	540	525	509	493
-1128	-1126	-1139	-1138	-1151	-1149

2038-May	2038-Nov	2039-May	2039-Nov	2040-May	2040-Nov	2041-May
476	459	441	423	404	384	364
-1163	-1161	-1175	-1173	-1187	-1185	-1199

2041-Nov	2042-May	2042-Nov	2043-May	2043-Nov	2044-May	2044-Nov
343	321	299	275	252	227	201
-1198	-1212	-1210	-1224	-1223	-1237	-1235

2045-May	2045-Nov	2046-May	2046-Nov	2047-May	2047-Nov
175	148	120	92	62	31
-1250	-1248	-1263	-1261	-1276	-1274

2048-May	2048-Nov	2049-May	2049-Nov
0	0	0	0
0	0	0	0

Annual interest on debt	0.05		
Number of months in RPP period	6		
Number of months in a year	12		
Effective RPP period rate, monthly compounding	0.02526		
	2017-May	2017-Nov	2018-May
	2017	2017	2018
	1	2	1
$ million	May	Nov	May
Fraction of current year's GA cost	48%	17%	48%
Fraction of next year's GA cost	0%	35%	0%
IESO GA Cost Forecast	5,832	6,172	5,706
GA Paid by Ratepayers	4,596	4,926	4,469
Difference of Payment from Forecast Cost	-1,236	-1,246	-1,237
Interest from previous period		-32	-64
Accumulated Debt at end of period ($ million)	-1,267	-2,544	-3,846
Change in level of accumulated debt		-1,278	-1,301
Total GA paid by ratepayer	4,596	4,926	4,469
Actual Accumulated debt	-1,267	-2,544	-3,846
Actual Interest	0	-32	-64

2018-Nov	2019-May	2019-Nov	2020-May	2020-Nov	2021-May	2021-Nov	2022-May
2018	2019	2019	2020	2020	2021	2021	2022
2	1	2	1	2	1	2	1
Nov	May	Nov	May	Nov	May	Nov	May
17%	48%	17%	48%	17%	48%	17%	48%
35%	0%	35%	0%	35%	0%	35%	0%
6,029	5,570	6,199	5,867	5,835	5,228	5,541	5,127
4,787	4,339	4,738	4,303	4,403	3,875	4,162	3,883
-1,242	-1,231	-1,461	-1,564	-1,432	-1,353	-1,379	-1,244
-97	-131	-165	-206	-251	-294	-335	-379
-5,185	-6,547	-8,174	-9,944	-11,627	-13,274	-14,988	-16,611
-1,340	-1,362	-1,627	-1,770	-1,683	-1,647	-1,714	-1,623
4,787	4,339	4,738	4,303	4,403	3,875	4,162	3,883
-5,185	-6,547	-8,174	-9,944	-11,627	-13,274	-14,988	-16,611
-97	-131	-165	-206	-251	-294	-335	-379

2022-Nov	2023-May	2023-Nov	2024-May	2024-Nov	2025-May	2025-Nov
2022	2023	2023	2024	2024	2025	2025
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
5,369	4,939	5,616	5,365	5,551	5,076	5,277
4,195	3,893	4,712	4,635	4,795	4,420	5,004
-1,174	-1,046	-904	-730	-756	-656	-273
-420	-460	-498	-533	-565	-599	-630
-18,204	-19,710	-21,112	-22,376	-23,697	-24,951	-25,855
-1,593	-1,506	-1,402	-1,264	-1,321	-1,254	-904
4,195	3,893	4,712	4,635	4,795	4,420	5,004
-18,204	-19,710	-21,112	-22,376	-23,697	-24,951	-25,855
-420	-460	-498	-533	-565	-599	-630

2026-May	2026-Nov	2027-May	2027-Nov	2028-May	2028-Nov	2029-May
2026	2026	2027	2027	2028	2028	2029
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
4,838	5,551	5,324	5,640	5,216	5,317	4,826
4,878	5,566	5,464	6,036	5,892	6,304	5,861
41	15	140	396	675	987	1,035
-653	-669	-685	-699	-707	-707	-700
-26,467	-27,121	-27,666	-27,969	-28,000	-27,721	-27,386
-613	-654	-545	-303	-31	279	335
4,878	5,566	5,464	6,036	5,892	6,304	5,861
-26,467	-27,121	-27,666	-27,969	-28,000	-27,721	-27,386
-653	-669	-685	-699	-707	-707	-700

2029-Nov	2030-May	2030-Nov	2031-May	2031-Nov	2032-May	2032-Nov
2029	2030	2030	2031	2031	2032	2032
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
5,082	4,687	4,658	4,173	4,540	4,253	4,362
6,121	5,742	5,714	5,241	5,614	5,342	5,456
1,040	1,055	1,055	1,069	1,074	1,089	1,093
-692	-683	-674	-664	-654	-643	-632
-27,038	-26,667	-26,285	-25,880	-25,460	-25,015	-24,553
348	371	382	405	420	446	461
6,121	5,742	5,714	5,241	5,614	5,342	5,456
-27,038	-26,667	-26,285	-25,880	-25,460	-25,015	-24,553
-692	-683	-674	-664	-654	-643	-632

2033-May	2033-Nov	2034-May	2034-Nov	2035-May	2035-Nov	2036-May
2033	2033	2034	2034	2035	2035	2036
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
3,972	4,096	3,740	3,279	2,730	2,836	2,598
5,081	5,207	4,865	4,397	3,858	3,962	3,737
1,109	1,111	1,125	1,118	1,128	1,126	1,139
-620	-608	-595	-582	-568	-554	-540
-24,065	-23,562	-23,032	-22,496	-21,937	-21,365	-20,766
488	503	530	536	559	572	599
5,081	5,207	4,865	4,397	3,858	3,962	3,737
-24,065	-23,562	-23,032	-22,496	-21,937	-21,365	-20,766
-620	-608	-595	-582	-568	-554	-540

2036-Nov	2037-May	2037-Nov	2038-May	2038-Nov	2039-May	2039-Nov
2036	2037	2037	2038	2038	2039	2039
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
2,699	2,473	2,569	2,353	2,444	2,240	2,326
3,837	3,624	3,718	3,516	3,606	3,414	3,500
1,138	1,151	1,149	1,163	1,161	1,175	1,173
-525	-509	-493	-476	-459	-441	-423
-20,153	-19,511	-18,855	-18,168	-17,466	-16,732	-15,982
613	642	656	686	702	733	751
3,837	3,624	3,718	3,516	3,606	3,414	3,500
-20,153	-19,511	-18,855	-18,168	-17,466	-16,732	-15,982
-525	-509	-493	-476	-459	-441	-423

2040-May	2040-Nov	2041-May	2041-Nov	2042-May	2042-Nov	2043-May
2040	2040	2041	2041	2042	2042	2043
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
2,132	2,214	2,029	2,107	1,931	2,005	1,837
3,318	3,399	3,228	3,305	3,142	3,215	3,061
1,187	1,185	1,199	1,198	1,212	1,210	1,224
-404	-384	-364	-343	-321	-299	-275
-15,199	-14,398	-13,562	-12,707	-11,817	-10,905	-9,957
783	801	835	855	891	911	949
3,318	3,399	3,228	3,305	3,142	3,215	3,061
-15,199	-14,398	-13,562	-12,707	-11,817	-10,905	-9,957
-404	-384	-364	-343	-321	-299	-275

2043-Nov	2044-May	2044-Nov	2045-May	2045-Nov	2046-May	2046-Nov
2043	2044	2044	2045	2045	2046	2046
2	1	2	1	2	1	2
Nov	May	Nov	May	Nov	May	Nov
17%	48%	17%	48%	17%	48%	17%
35%	0%	35%	0%	35%	0%	35%
1,909	1,749	1,816	1,664	1,729	1,584	1,645
3,131	2,985	3,052	2,914	2,977	2,846	2,906
1,223	1,237	1,235	1,250	1,248	1,263	1,261
-252	-227	-201	-175	-148	-120	-92
-8,986	-7,976	-6,942	-5,868	-4,768	-3,626	-2,456
971	1,010	1,034	1,074	1,100	1,142	1,169
3,131	2,985	3,052	2,914	2,977	2,846	2,906
-8,986	-7,976	-6,942	-5,868	-4,768	-3,626	-2,456
-252	-227	-201	-175	-148	-120	-92

2047-May	2047-Nov	2048-May	2048-Nov	2049-May	2049-Nov	2050-May
2047	2047	2048	2048	2049	2049	2050
1	2	1	2	1	2	1
May	Nov	May	Nov	May	Nov	May
48%	17%	48%	17%	48%	17%	48%
0%	35%	0%	35%	0%	35%	0%
1,507	1,566	1,434	1,490	1,365	1,418	1,299
2,783	2,840	2,723	2,777	2,668	2,719	2,615
1,276	1,274	1,289	1,287	1,302	1,301	1,316
-62	-31	0	33	66	100	136
-1,243	0	1,289	2,609	3,977	5,379	6,830
1,214	1,243	1,289	1,320	1,368	1,401	1,452
2,783	2,840	1,434	1,490	1,365	1,418	1,299
-1,243	0	0	0	0	0	0
-62	-31	0	0	0	0	0

2050-Nov	
	2050
	2
Nov	
	17%
	35%
	446
	590
	144
	173
	7,147
	316
	446
	0
	0

		2016
Relative change in GA		
IESO Class B GA Rate - Revised Base ($2016/MWh)	$	90.86
IESO Class B GA Rate - Revised Base Extrapolated ($2016/MWh)		
IESO Class B GA Rate - Revised Base ($2016/MWh)	$	90.86
Total GA (2016$ million)		
Total GA (nominal $ million)		

	2017	2018	2019	2020	2021	2022	2023
	-2%	-4%	-4%	3%	-13%	-4%	-6%
$	88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36	$ 67.39
$	88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36	$ 67.39
$	11,858	$ 11,375	$ 10,886	$ 11,242	$ 9,821	$ 9,442	$ 8,918
	12095	11835	11552	12168	10844	10634	10243

	2024	2025	2026	2027	2028	2029	2030
	7%	-7%	-6%	7%	-4%	-9%	-5%
$	71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29
$	71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29
$	9,498	$ 8,809	$ 8,231	$ 8,881	$ 8,531	$ 7,737	$ 7,368
	11128	10527	10033	11043	10819	10009	9721

Growth Rate -0.07082613

	2031	2032	2033	2034	2035	2036	2037
	-13%	-1%	-9%	-8%	-29%		
$	48.26	$ 47.88	$ 43.54	$ 39.92	$ 28.18		
						$ 26.19	$ 24.33
$	48.26	$ 47.88	$ 43.54	$ 39.92	$ 28.18	$ 26.19	$ 24.33
$	6,430	$ 6,425	$ 5,883	$ 5,431	$ 3,887	$ 3,627	$ 3,384
	8654	8820	8238	7756	5662	5389	5129

	2038	2039	2040	2041	2042	2043	2044	2045	2046
	$ 22.61	$ 21.01	$ 19.52	$ 18.14	$ 16.85	$ 15.66	$ 14.55	$ 13.52	$ 12.56
	$ 22.61	$ 21.01	$ 19.52	$ 18.14	$ 16.85	$ 15.66	$ 14.55	$ 13.52	$ 12.56
	$ 3,157	$ 2,946	$ 2,749	$ 2,564	$ 2,393	$ 2,233	$ 2,083	$ 1,944	$ 1,813
	4881	4645	4421	4207	4004	3811	3627	3451	3285

2047	2048	2049	2050
$ 11.67	$ 10.85	$ 10.08	$ 9.36
$ 11.67	$ 10.85	$ 10.08	$ 9.36
$ 1,692	$ 1,579	$ 1,473	$ 1,374
3126	2975	2831	2695

Share of consumption	50%	
Share of GA savings	100%	
Average monthly residential consumtion (MW)	0.75	
RPP Fraction of Class B consumption	53%	
Assumed RPP Eligible Demand (TWh) (from Robin/Mark)	72	
	2017	2017
	1	2
RPP Period beginning	May	Nov
Assumed CPI increase since previous RPP period		0.01
Fraction of current year's demand	50%	17%
Fraction of next year's demand	0%	33%
Total Demand (TWh)	71.79162	71.20838
IESO Forecast monthly bill - no rebate with tax ($/month)	164.3404	166.1701
IESO Forecast monthly bill - no rebate no tax ($/month)	145.4339	147.0532
IESO Forecast monthly bill - with rebate with tax ($/month)	152.7056	154.4059
Target Bill with OFHP with tax ($/month)	123.2553	124.4878
HST on OFHP bill ($/month)	15.26018	15.41278
8% Rebate on OFHP bill ($/month)	-9.39	-9.48
Pre-tax subtotal of OFHP bill ($/month)	117.39	118.56
Savings due to tax-basing social programs ($/month)	-2.41	-2.43672
Impact of GA Financing ($/month)	-25.64	-26.06
Fraction of current year's GA cost	48%	17%
Fraction of next year's GA cost	0%	35%
Change in GA Cost ($ million)	-1236	-1246
Actual Bill with OFHP with tax ($/month)	123.2553	124.4878

2018	2018	2019	2019	2020	2020	2021	2021	2022	2022
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.79162	70.87573	71.28959	70.71041	71.28959	70.71041	71.28959	70.71041	71.28959	70.71041
167.0794	168.9706	169.9104	177.0514	180.6002	179.1968	178.4995	180.84	182.0031	185.3459
147.8579	149.5315	150.3632	156.6826	159.8231	158.5813	157.9641	160.0354	161.0647	164.0229
155.2508	157.0081	157.8813	164.5168	167.8143	166.5103	165.8623	168.0371	169.1179	172.2241
125.7327	126.99	128.2599	129.5425	130.8379	132.1463	133.4678	134.8025	139.0773	143.4877
15.56691	15.72257	15.8798	16.0386	16.19898	16.36097	16.52458	16.68983	17.21909	17.76514
-9.58	-9.68	-9.77	-9.87	-9.97	-10.07	-10.17	-10.27	-10.60	-10.93
119.75	120.94	122.15	123.37	124.61	125.85	127.11	128.38	132.45	136.65
-2.45	-2.47672	-2.49	-2.5234	-2.54	-2.56672	-2.58	-2.60366	-2.61541	-2.63939
-25.66	-26.11	-25.72	-30.79	-32.68	-30.16	-28.27	-29.05	-25.99	-24.73
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
-1237	-1242	-1231	-1461	-1564	-1432	-1353	-1379	-1244	-1174
125.7327	126.99	128.2599	129.5425	130.8379	132.1463	133.4678	134.8025	139.0773	143.4877

2023	2023	2024	2024	2025	2025	2026	2026	2027	2027
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.28959	70.71041	71.28959	70.71041	71.28959	70.37777	70.78755	70.5451	71.28959	70.71041
187.0071	188.9146	189.8625	196.0113	199.067	195.8777	194.2928	201.0266	204.373	204.7639
165.493	167.181	168.0199	173.4613	176.1655	173.3431	171.9405	177.8997	180.8611	181.2069
173.7677	175.5401	176.4209	182.1344	184.9737	182.0103	180.5376	186.7947	189.9041	190.2673
148.0379	152.7324	157.5758	162.5728	167.7283	173.0472	178.5348	184.1964	190.0376	196.064
18.3285	18.90973	19.50939	20.12806	20.76636	21.42489	22.10431	22.80527	23.52847	24.27459
-11.28	-11.64	-12.01	-12.39	-12.78	-13.18	-13.60	-14.03	-14.48	-14.94
140.99	145.46	150.07	154.83	159.74	164.81	170.03	175.43	180.99	186.73
-2.65131	-2.67562	-2.6877	-2.71235	-2.72459	-2.74958	-2.76199	-2.78732	-2.7999	-2.82558
-21.85	-19.05	-15.26	-15.92	-13.70	-5.79	0.85	0.31	2.93	8.35
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
-1046	-904	-730	-756	-656	-273	41	15	140	396
148.0379	152.7324	157.5758	162.5728	167.7283	173.0472	178.5348	184.1964	190.0376	196.064

2028 1	2028 2	2029 1	2029 2	2030 1	2030 2	2031 1	2031 2	2032 1	2032 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
71.28959	70.71041	71.28959	71.04306	71.79162	71.20838	71.79162	71.54102	72.29366	72.03899
204.9581	204.3448	204.04	205.5851	206.353	208.1958	209.1116	210.7652	211.5869	213.0563
181.3788	180.8361	180.5664	181.9337	182.6132	184.2441	185.0545	186.5178	187.2451	188.5454
190.4478	189.8779	189.5947	191.0304	191.7439	193.4563	194.3072	195.8437	196.6073	197.9727
202.2816	208.6962	209.2828	210.8676	211.6552	213.5453	214.4847	216.1807	217.0236	218.5307
25.04438	25.83858	25.9112	26.10741	26.20493	26.43895	26.55525	26.76523	26.86959	27.05618
-15.41	-15.90	-15.95	-16.07	-16.13	-16.27	-16.34	-16.47	-16.54	-16.65
192.65	198.76	199.32	200.83	201.58	203.38	204.27	205.89	206.69	208.12
-2.83833	-2.86436	-2.87729	-2.90367	-2.91679	-2.94353	-2.95682	-2.98393	-2.99741	-3.02489
14.11	20.79	21.63	21.80	21.88	22.08	22.17	22.35	22.44	22.60
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
675	987	1035	1040	1055	1055	1069	1074	1089	1093
202.2816	208.6962	209.2828	210.8676	211.6552	213.5453	214.4847	216.1807	217.0236	218.5307

2033 1	2033 2	2034 1	2034 2	2035 1	2035 2	2036 1	2036 2	2037 1	2037 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
72.7957	72.53695	73.29774	73.36756	74.30182	73.90311	74.6111	74.21073	74.92167	74.51963
213.7865	214.8197	215.3331	213.1017	211.9927	212.6842	213.0279	213.7227	214.068	214.7663
189.1916	190.1059	190.5603	188.5855	187.6042	188.2161	188.5202	189.1352	189.4407	190.0587
198.6512	199.6112	200.0883	198.0148	196.9844	197.6269	197.9462	198.5919	198.9128	199.5616
219.2797	220.3394	220.8661	218.5773	217.4399	218.1491	218.5016	219.2143	219.5685	220.2847
27.14891	27.28012	27.34532	27.06195	26.92112	27.00894	27.05258	27.14082	27.18467	27.27334
-16.71	-16.79	-16.83	-16.65	-16.57	-16.62	-16.65	-16.70	-16.73	-16.78
208.84	209.85	210.35	208.17	207.09	207.76	208.10	208.78	209.11	209.79
-3.03855	-3.06641	-3.08025	-3.1085	-3.12253	-3.15117	-3.16539	-3.19442	-3.20884	-3.23826
22.68	22.81	22.87	22.69	22.60	22.70	22.74	22.83	22.88	22.97
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1109	1111	1125	1118	1128	1126	1139	1138	1151	1149
219.2797	220.3394	220.8661	218.5773	217.4399	218.1491	218.5016	219.2143	219.5685	220.2847

2038 1	2038 2	2039 1	2039 2	2040 1	2040 2	2041 1	2041 2	2042 1	2042 2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
75.23353	74.82981	75.54669	75.14129	75.86115	75.45407	76.17692	75.76814	76.494	76.08353
215.1133	215.815	216.1637	216.8688	217.2192	217.9277	218.2798	218.9918	219.3456	220.0611
190.3658	190.9867	191.2953	191.9193	192.2293	192.8564	193.168	193.798	194.1112	194.7443
199.884	200.536	200.86	201.5152	201.8408	202.4992	202.8264	203.4879	203.8167	204.4815
220.6406	221.3603	221.7179	222.4412	222.8006	223.5273	223.8885	224.6187	224.9817	225.7155
27.31741	27.40651	27.45079	27.54033	27.58483	27.67481	27.71952	27.80994	27.85487	27.94573
-16.81	-16.87	-16.89	-16.95	-16.98	-17.03	-17.06	-17.11	-17.14	-17.20
210.13	210.82	211.16	211.85	212.19	212.88	213.23	213.92	214.27	214.97
-3.25289	-3.28271	-3.29753	-3.32777	-3.3428	-3.37345	-3.38868	-3.41975	-3.43519	-3.46669
23.02	23.12	23.16	23.26	23.30	23.40	23.45	23.54	23.59	23.69
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1163	1161	1175	1173	1187	1185	1199	1198	1212	1210
220.6406	221.3603	221.7179	222.4412	222.8006	223.5273	223.8885	224.6187	224.9817	225.7155

2043	2043	2044	2044	2045	2045	2046	2046	2047	2047
1	2	1	2	1	2	1	2	1	2
May	Nov	May	Nov	May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%	0%	33%	0%	33%
76.81241	76.40022	77.13214	76.71824	77.4532	77.03758	77.7756	77.35824	78.09934	77.68025
220.4166	221.1356	221.4929	222.2154	222.5744	223.3004	223.6612	224.3908	224.7533	225.4864
195.059	195.6952	196.0114	196.6508	196.9685	197.611	197.9303	198.5759	198.8967	199.5455
204.8119	205.48	205.812	206.4833	206.8169	207.4915	207.8268	208.5047	208.8416	209.5228
226.0802	226.8176	227.1841	227.9252	228.2934	229.0381	229.4081	230.1564	230.5283	231.2802
27.99088	28.08219	28.12756	28.21931	28.2649	28.3571	28.40291	28.49556	28.5416	28.6347
-17.23	-17.28	-17.31	-17.37	-17.39	-17.45	-17.48	-17.54	-17.56	-17.62
215.31	216.02	216.37	217.07	217.42	218.13	218.48	219.20	219.55	220.27
-3.48234	-3.51427	-3.53014	-3.56251	-3.57859	-3.61141	-3.62771	-3.66098	-3.67751	-3.71123
23.74	23.84	23.88	23.98	24.03	24.13	24.18	24.28	24.33	24.43
48%	17%	48%	17%	48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%	0%	35%	0%	35%
1224	1223	1237	1235	1250	1248	1263	1261	1276	1274
226.0802	226.8176	227.1841	227.9252	228.2934	229.0381	229.4081	230.1564	230.5283	231.2802

2048	2048	2049	2049	2050	2050
1	2	1	2	1	2
May	Nov	May	Nov	May	Nov
0.01	0.01	0.01	0.01	0.01	0.01
50%	17%	50%	17%	50%	17%
0%	33%	0%	33%	0%	33%
78.42443	78.00359	78.75087	78.32828	79.07867	26.03904
225.8507	226.5874	226.9535	227.6938	228.0617	75.71129
199.8679	200.5198	200.8438	201.499	201.8245	67.00114
209.8613	210.5458	210.886	211.5739	211.9157	70.3512
231.6539	232.4096	232.7851	233.5444	233.9217	77.65668
28.68096	28.77452	28.82101	28.91502	28.96174	9.614636
-17.65	-17.71	-17.74	-17.79	-17.82	-5.92
220.62	221.34	221.70	222.42	222.78	73.96
-3.72798	-3.76217	-3.77915	-3.81381	-3.83103	-1.27181
24.48	24.58	24.64	24.74	24.79	8.23
48%	17%	48%	17%	48%	17%
0%	35%	0%	35%	0%	35%
1289	1287	1302	1301	1316	144
205.9469	206.5956	206.9179	207.5694	207.8932	69.01579

Share of consumption	0.503496503
Share of GA savings	1
Average monthly residential consumtion (MW)	0.75
RPP Fraction of Class B conumption	0.53
Assumed RPP Eligible Demand (TWh) (from Energy Economics)	72
Tax-basing of social programs CAGR	1.0137

	2017
OPO Demand - Outlook B + Extrapolation	143
YoY Increase	

Relative change in non-OFHP Bill	
Non-OFHP Bill with rebate and tax	152.71
Non-OFHP Bill Extrapolated	
Non-OFHP Bill no rebate with tax	164.34
non-OFHP bill no rebate no tax	145.43
Cost Savings due to tax-basing social programs	-2.41

All	Class B	RPP	RPP Eligible
0.82	0.82	0.43	0.50
0.88	1	1	1

2018	2019	2020	2021	2022	2023
143	142	142	142	142	142
0	-0.00699301	0	0	0	0

1.7%	1.7%	6.3%	-1.2%	2.0%	2.7%
155.25	157.88	167.81	165.86	169.12	173.77
167.08	169.91	180.60	178.50	182.00	187.01
147.86	150.36	159.82	157.96	161.06	165.49
-2.45	-2.49	-2.54	-2.58	-2.62	-2.65

2024	2025	2026	2027	2028
142	142	141	142	142
0	0	-0.007042254	0.007092199	0

1.5%	4.8%	-2.4%	5.2%	0.3%
176.42	184.97	180.54	189.90	190.45
189.86	199.07	194.29	204.37	204.96
168.02	176.17	171.94	180.86	181.38
-2.69	-2.72	-2.76	-2.80	-2.84

Average Demand Growth Rate
Average Growth Rate in non-OFHP bill

2029	2030	2031	2032	2033	2034
142	143	143	144	145	146
0	0.00704225	0	0.00699301	0.00694444	0.006896552

-0.4%	1.1%	1.3%	1.2%	1.0%	0.7%
189.59	191.74	194.31	196.61	198.65	200.09
204.04	206.35	209.11	211.59	213.79	215.33
180.57	182.61	185.05	187.25	189.19	190.56
-2.88	-2.92	-2.96	-3.00	-3.04	-3.08

0.42%

0.49%

2035	2036	2037	2038	2039	2040
148	149	149	150	150	151
0.01369863					

-1.6%

196.98	197.95	198.91	199.88	200.86	201.84
	197.95	198.91	199.88	200.86	201.84
211.99	213.03	214.07	215.11	216.16	217.22
187.60	188.52	189.44	190.37	191.30	192.23
-3.12	-3.17	-3.21	-3.25	-3.30	-3.34

2041	2042	2043	2044	2045	2046
152	152	153	154	154	155

202.83	203.82	204.81	205.81	206.82	207.83
202.83	203.82	204.81	205.81	206.82	207.83
218.28	219.35	220.42	221.49	222.57	223.66
193.17	194.11	195.06	196.01	196.97	197.93
-3.39	-3.44	-3.48	-3.53	-3.58	-3.63

2047	2048	2049	2050
156	156	157	158

208.84	209.86	210.89	211.92
208.84	209.86	210.89	211.92
224.75	225.85	226.95	228.06
198.90	199.87	200.84	201.82
-3.68	-3.73	-3.78	-3.83

From the IESO website

2016	Jan	Feb	Mar	Apr
GA-OEFC-NUG (M$)	74.2	73.3	76.5	61.2
GA-OPG (M$)	327.9	339.6	378	335.1
GA-OPA (M$)	668.5	650.8	665.6	694.4
Total GA (M$)	1070.6	1063.7	1120.1	1090.7
Fraction of total	9%	9%	9%	9%
Fraction of 6-month RPP total	17%	17%	18%	17%

May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
54.1	46.5	40	38.9	99.3	119.7	116.1	42
301.8	261.4	268.4	204.4	273.7	305.6	261.6	258.7
704.9	687.4	673.4	635.3	594.7	637	698.4	664.8
1060.8	995.3	981.8	878.6	967.7	1062.3	1076.1	965.5
9%	8%	8%	7%	8%	9%	9%	8%
18%	17%	17%	15%	16%	18%	17%	15%

Total	Fraction of total
841.8	7%
3516.2	29%
7975.2	65%
12333.2	

RPP Period Start	Fraction of current year's GA cost
May	48.2%
Nov	16.6%

Fraction of next year's GA cost
0
35%

From IESO website

Month	Date	Hour	Total Market Demand	Ontario Demand
1	1-Jan-16	1	16767	13417
1	1-Jan-16	2	16751	12968
1	1-Jan-16	3	16319	12395
1	1-Jan-16	4	16148	12228
1	1-Jan-16	5	16054	12116
1	1-Jan-16	6	16100	12257
1	1-Jan-16	7	16416	12528
1	1-Jan-16	8	16711	12820
1	1-Jan-16	9	16688	12986
1	1-Jan-16	10	17066	13569
1	1-Jan-16	11	17598	13965
1	1-Jan-16	12	17943	14215
1	1-Jan-16	13	18289	14443
1	1-Jan-16	14	18586	14733
1	1-Jan-16	15	18373	14907
1	1-Jan-16	16	18374	14981
1	1-Jan-16	17	18963	15763
1	1-Jan-16	18	20100	16979
1	1-Jan-16	19	19972	16859
1	1-Jan-16	20	19554	16552
1	1-Jan-16	21	19137	16165
1	1-Jan-16	22	18814	15701
1	1-Jan-16	23	17782	14866
1	1-Jan-16	24	17442	14023
1	2-Jan-16	1	17064	13251
1	2-Jan-16	2	16789	12844
1	2-Jan-16	3	16564	12673
1	2-Jan-16	4	16312	12473
1	2-Jan-16	5	16479	12468
1	2-Jan-16	6	16481	12644
1	2-Jan-16	7	16962	13064
1	2-Jan-16	8	17143	13780
1	2-Jan-16	9	17560	14305
1	2-Jan-16	10	18248	15068
1	2-Jan-16	11	18700	15536
1	2-Jan-16	12	18835	15852
1	2-Jan-16	13	18853	16059
1	2-Jan-16	14	18348	15750
1	2-Jan-16	15	18418	15564
1	2-Jan-16	16	18679	15571
1	2-Jan-16	17	19226	16207
1	2-Jan-16	18	20347	17163
1	2-Jan-16	19	20289	17100
1	2-Jan-16	20	19972	16710
1	2-Jan-16	21	19054	16124

1	2-Jan-16	22	18972	15699
1	2-Jan-16	23	18312	14983
1	2-Jan-16	24	17878	14164
1	3-Jan-16	1	17408	13432
1	3-Jan-16	2	16592	12916
1	3-Jan-16	3	16499	12588
1	3-Jan-16	4	16362	12450
1	3-Jan-16	5	16319	12443
1	3-Jan-16	6	16512	12624
1	3-Jan-16	7	16929	12973
1	3-Jan-16	8	17351	13613
1	3-Jan-16	9	17314	14155
1	3-Jan-16	10	17773	14696
1	3-Jan-16	11	18412	15182
1	3-Jan-16	12	18480	15434
1	3-Jan-16	13	18720	15650
1	3-Jan-16	14	18524	15533
1	3-Jan-16	15	18463	15602
1	3-Jan-16	16	18645	15748
1	3-Jan-16	17	19743	16863
1	3-Jan-16	18	21242	18423
1	3-Jan-16	19	21258	18512
1	3-Jan-16	20	21009	18316
1	3-Jan-16	21	20191	18006
1	3-Jan-16	22	19909	17347
1	3-Jan-16	23	19138	16606
1	3-Jan-16	24	18275	15533
1	4-Jan-16	1	17965	14809
1	4-Jan-16	2	17629	14480
1	4-Jan-16	3	17406	14295
1	4-Jan-16	4	17184	14213
1	4-Jan-16	5	17536	14435
1	4-Jan-16	6	18269	15147
1	4-Jan-16	7	19542	16532
1	4-Jan-16	8	21171	18240
1	4-Jan-16	9	21362	18522
1	4-Jan-16	10	21695	18225
1	4-Jan-16	11	21213	17912
1	4-Jan-16	12	21218	17733
1	4-Jan-16	13	20870	17597
1	4-Jan-16	14	21146	17619
1	4-Jan-16	15	21192	17758
1	4-Jan-16	16	21706	18327
1	4-Jan-16	17	22939	19437
1	4-Jan-16	18	24010	20820
1	4-Jan-16	19	23703	20836
1	4-Jan-16	20	23102	20502

1	4-Jan-16	21	23028	20255
1	4-Jan-16	22	22404	19533
1	4-Jan-16	23	21205	18358
1	4-Jan-16	24	19817	17238
1	5-Jan-16	1	19386	16429
1	5-Jan-16	2	19071	15996
1	5-Jan-16	3	19015	15916
1	5-Jan-16	4	18882	15878
1	5-Jan-16	5	18859	15947
1	5-Jan-16	6	20075	16466
1	5-Jan-16	7	21834	17974
1	5-Jan-16	8	22913	19374
1	5-Jan-16	9	23441	19356
1	5-Jan-16	10	22903	18899
1	5-Jan-16	11	22889	18547
1	5-Jan-16	12	22431	18080
1	5-Jan-16	13	21288	17610
1	5-Jan-16	14	20761	17456
1	5-Jan-16	15	20746	17516
1	5-Jan-16	16	21220	18038
1	5-Jan-16	17	22494	19311
1	5-Jan-16	18	23364	20277
1	5-Jan-16	19	23629	20202
1	5-Jan-16	20	23262	19893
1	5-Jan-16	21	22462	19445
1	5-Jan-16	22	21746	18648
1	5-Jan-16	23	20463	17341
1	5-Jan-16	24	18834	16055
1	6-Jan-16	1	18164	15187
1	6-Jan-16	2	17916	14784
1	6-Jan-16	3	17921	14522
1	6-Jan-16	4	17944	14476
1	6-Jan-16	5	17898	14586
1	6-Jan-16	6	18240	15148
1	6-Jan-16	7	19457	16504
1	6-Jan-16	8	21644	18112
1	6-Jan-16	9	21583	18213
1	6-Jan-16	10	20947	17600
1	6-Jan-16	11	20417	17234
1	6-Jan-16	12	20044	16927
1	6-Jan-16	13	19796	16619
1	6-Jan-16	14	20216	16678
1	6-Jan-16	15	20289	16707
1	6-Jan-16	16	20416	16869
1	6-Jan-16	17	21450	18146
1	6-Jan-16	18	22628	19353
1	6-Jan-16	19	22286	19400

1	6-Jan-16	20	22086	19105
1	6-Jan-16	21	21468	18731
1	6-Jan-16	22	20966	17971
1	6-Jan-16	23	20030	16841
1	6-Jan-16	24	18766	15669
1	7-Jan-16	1	17925	14795
1	7-Jan-16	2	17477	14398
1	7-Jan-16	3	17506	14210
1	7-Jan-16	4	17330	14198
1	7-Jan-16	5	17561	14356
1	7-Jan-16	6	18298	15122
1	7-Jan-16	7	19402	16439
1	7-Jan-16	8	20710	18000
1	7-Jan-16	9	20873	17989
1	7-Jan-16	10	20476	17460
1	7-Jan-16	11	20463	17154
1	7-Jan-16	12	20337	17075
1	7-Jan-16	13	20063	16841
1	7-Jan-16	14	19922	16657
1	7-Jan-16	15	20161	16832
1	7-Jan-16	16	20342	17142
1	7-Jan-16	17	20893	18087
1	7-Jan-16	18	21801	19131
1	7-Jan-16	19	21920	19211
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12	17-Dec-16	6	17518	14789
12	17-Dec-16	7	18114	15353
12	17-Dec-16	8	18596	16131
12	17-Dec-16	9	19512	16746
12	17-Dec-16	10	19754	17309
12	17-Dec-16	11	19566	17720
12	17-Dec-16	12	19872	17822
12	17-Dec-16	13	19641	17762
12	17-Dec-16	14	19337	17583
12	17-Dec-16	15	18847	17477
12	17-Dec-16	16	18765	17643
12	17-Dec-16	17	19382	18329
12	17-Dec-16	18	20430	19124
12	17-Dec-16	19	20074	18894
12	17-Dec-16	20	19969	18430
12	17-Dec-16	21	19547	17833
12	17-Dec-16	22	18654	17239
12	17-Dec-16	23	18238	16472
12	17-Dec-16	24	17164	15536
12	18-Dec-16	1	16622	14754
12	18-Dec-16	2	16049	14279
12	18-Dec-16	3	15854	13876
12	18-Dec-16	4	15579	13715
12	18-Dec-16	5	16083	13582
12	18-Dec-16	6	16337	13799
12	18-Dec-16	7	16553	14203
12	18-Dec-16	8	17427	14992
12	18-Dec-16	9	18564	15804
12	18-Dec-16	10	19236	16432

12	18-Dec-16	11	19375	16710
12	18-Dec-16	12	19175	16795
12	18-Dec-16	13	19021	16723
12	18-Dec-16	14	19167	16631
12	18-Dec-16	15	19218	16672
12	18-Dec-16	16	19759	16988
12	18-Dec-16	17	20585	18051
12	18-Dec-16	18	22033	19513
12	18-Dec-16	19	21593	19421
12	18-Dec-16	20	21079	19184
12	18-Dec-16	21	21118	18987
12	18-Dec-16	22	20529	18419
12	18-Dec-16	23	19102	17509
12	18-Dec-16	24	18178	16406
12	19-Dec-16	1	17917	15670
12	19-Dec-16	2	17513	15307
12	19-Dec-16	3	16845	15193
12	19-Dec-16	4	16983	15159
12	19-Dec-16	5	17341	15305
12	19-Dec-16	6	18387	15921
12	19-Dec-16	7	19841	17330
12	19-Dec-16	8	21189	18841
12	19-Dec-16	9	21456	19077
12	19-Dec-16	10	21727	19059
12	19-Dec-16	11	21091	18751
12	19-Dec-16	12	21071	18679
12	19-Dec-16	13	21048	18556
12	19-Dec-16	14	21316	18429
12	19-Dec-16	15	20812	18386
12	19-Dec-16	16	21133	18664
12	19-Dec-16	17	22288	19531
12	19-Dec-16	18	23441	20682
12	19-Dec-16	19	23779	20637
12	19-Dec-16	20	23400	20446
12	19-Dec-16	21	23353	19974
12	19-Dec-16	22	22718	19260
12	19-Dec-16	23	20663	18069
12	19-Dec-16	24	19511	16779
12	20-Dec-16	1	18400	15815
12	20-Dec-16	2	18222	15292
12	20-Dec-16	3	18228	15017
12	20-Dec-16	4	18281	14917
12	20-Dec-16	5	18184	14996
12	20-Dec-16	6	18626	15521
12	20-Dec-16	7	19249	16769
12	20-Dec-16	8	20995	18250
12	20-Dec-16	9	20853	18270

12	20-Dec-16	10	21011	18288
12	20-Dec-16	11	21123	18160
12	20-Dec-16	12	20808	18116
12	20-Dec-16	13	20528	18045
12	20-Dec-16	14	20437	17925
12	20-Dec-16	15	20126	17792
12	20-Dec-16	16	20466	17941
12	20-Dec-16	17	21284	18724
12	20-Dec-16	18	22324	19874
12	20-Dec-16	19	22122	19694
12	20-Dec-16	20	21744	19413
12	20-Dec-16	21	21513	19122
12	20-Dec-16	22	20988	18443
12	20-Dec-16	23	19790	17157
12	20-Dec-16	24	18478	15820
12	21-Dec-16	1	17463	14920
12	21-Dec-16	2	16775	14410
12	21-Dec-16	3	16715	14176
12	21-Dec-16	4	16612	14153
12	21-Dec-16	5	16794	14296
12	21-Dec-16	6	17720	14889
12	21-Dec-16	7	18869	16174
12	21-Dec-16	8	20058	17669
12	21-Dec-16	9	19929	17771
12	21-Dec-16	10	20065	17718
12	21-Dec-16	11	20317	17625
12	21-Dec-16	12	20042	17470
12	21-Dec-16	13	19794	17286
12	21-Dec-16	14	19501	17145
12	21-Dec-16	15	19512	17254
12	21-Dec-16	16	19773	17697
12	21-Dec-16	17	21195	18664
12	21-Dec-16	18	21611	19529
12	21-Dec-16	19	21805	19349
12	21-Dec-16	20	21125	19078
12	21-Dec-16	21	20916	18714
12	21-Dec-16	22	20172	18123
12	21-Dec-16	23	19769	17018
12	21-Dec-16	24	18426	15706
12	22-Dec-16	1	17818	14742
12	22-Dec-16	2	17200	14161
12	22-Dec-16	3	16883	13838
12	22-Dec-16	4	16699	13735
12	22-Dec-16	5	16891	13858
12	22-Dec-16	6	17545	14456
12	22-Dec-16	7	18803	15733
12	22-Dec-16	8	20061	17156

12	22-Dec-16	9	20524	17508
12	22-Dec-16	10	20412	17603
12	22-Dec-16	11	20467	17666
12	22-Dec-16	12	20346	17546
12	22-Dec-16	13	20388	17316
12	22-Dec-16	14	20364	17213
12	22-Dec-16	15	20372	17125
12	22-Dec-16	16	20483	17327
12	22-Dec-16	17	21288	18044
12	22-Dec-16	18	22303	18902
12	22-Dec-16	19	22078	18838
12	22-Dec-16	20	21993	18648
12	22-Dec-16	21	21662	18398
12	22-Dec-16	22	20689	17686
12	22-Dec-16	23	19761	16508
12	22-Dec-16	24	18343	15167
12	23-Dec-16	1	17370	14302
12	23-Dec-16	2	16731	13633
12	23-Dec-16	3	16523	13353
12	23-Dec-16	4	16469	13309
12	23-Dec-16	5	16598	13416
12	23-Dec-16	6	17061	13957
12	23-Dec-16	7	18143	15163
12	23-Dec-16	8	19805	16483
12	23-Dec-16	9	19781	16629
12	23-Dec-16	10	19589	16535
12	23-Dec-16	11	19501	16417
12	23-Dec-16	12	19228	16339
12	23-Dec-16	13	19151	16028
12	23-Dec-16	14	19030	15846
12	23-Dec-16	15	18959	15853
12	23-Dec-16	16	19135	16203
12	23-Dec-16	17	19758	17088
12	23-Dec-16	18	21072	18166
12	23-Dec-16	19	21026	17971
12	23-Dec-16	20	20830	17705
12	23-Dec-16	21	20320	17451
12	23-Dec-16	22	19816	16945
12	23-Dec-16	23	18276	15730
12	23-Dec-16	24	17601	14577
12	24-Dec-16	1	16774	13668
12	24-Dec-16	2	16451	13127
12	24-Dec-16	3	16016	12774
12	24-Dec-16	4	15894	12626
12	24-Dec-16	5	15794	12518
12	24-Dec-16	6	15867	12592
12	24-Dec-16	7	16154	13049

12	24-Dec-16	8	16976	13822
12	24-Dec-16	9	17648	14725
12	24-Dec-16	10	18507	15420
12	24-Dec-16	11	18775	15782
12	24-Dec-16	12	18336	15713
12	24-Dec-16	13	18329	15589
12	24-Dec-16	14	18077	15511
12	24-Dec-16	15	18099	15525
12	24-Dec-16	16	18157	15632
12	24-Dec-16	17	18159	16133
12	24-Dec-16	18	18513	16595
12	24-Dec-16	19	18254	16108
12	24-Dec-16	20	17855	15529
12	24-Dec-16	21	17483	15163
12	24-Dec-16	22	17557	14840
12	24-Dec-16	23	17291	14365
12	24-Dec-16	24	16668	13570
12	25-Dec-16	1	15602	12834
12	25-Dec-16	2	15152	12233
12	25-Dec-16	3	15044	11921
12	25-Dec-16	4	14937	11713
12	25-Dec-16	5	15100	11780
12	25-Dec-16	6	15231	12029
12	25-Dec-16	7	15422	12436
12	25-Dec-16	8	16344	13195
12	25-Dec-16	9	17156	13873
12	25-Dec-16	10	17280	14060
12	25-Dec-16	11	17016	13866
12	25-Dec-16	12	17181	13923
12	25-Dec-16	13	17280	13768
12	25-Dec-16	14	17306	13802
12	25-Dec-16	15	17529	13955
12	25-Dec-16	16	17651	14366
12	25-Dec-16	17	18384	15230
12	25-Dec-16	18	18855	15762
12	25-Dec-16	19	18743	15494
12	25-Dec-16	20	18483	15124
12	25-Dec-16	21	18419	15041
12	25-Dec-16	22	18240	14862
12	25-Dec-16	23	17679	14362
12	25-Dec-16	24	17113	13696
12	26-Dec-16	1	16239	13068
12	26-Dec-16	2	15856	12660
12	26-Dec-16	3	15576	12303
12	26-Dec-16	4	15238	12117
12	26-Dec-16	5	15494	12384
12	26-Dec-16	6	15909	12731

12	26-Dec-16	7	16645	13339
12	26-Dec-16	8	17228	13832
12	26-Dec-16	9	17766	14380
12	26-Dec-16	10	18197	14917
12	26-Dec-16	11	18354	15233
12	26-Dec-16	12	18920	15582
12	26-Dec-16	13	18610	15339
12	26-Dec-16	14	18793	15429
12	26-Dec-16	15	18499	15274
12	26-Dec-16	16	18660	15350
12	26-Dec-16	17	18982	15899
12	26-Dec-16	18	19427	16375
12	26-Dec-16	19	19020	16073
12	26-Dec-16	20	18876	15782
12	26-Dec-16	21	18467	15410
12	26-Dec-16	22	17944	14797
12	26-Dec-16	23	17005	14005
12	26-Dec-16	24	16297	13180
12	27-Dec-16	1	15442	12480
12	27-Dec-16	2	15214	12045
12	27-Dec-16	3	14586	11752
12	27-Dec-16	4	14561	11684
12	27-Dec-16	5	14783	11833
12	27-Dec-16	6	15356	12180
12	27-Dec-16	7	15902	12821
12	27-Dec-16	8	16623	13571
12	27-Dec-16	9	17036	14166
12	27-Dec-16	10	17758	14730
12	27-Dec-16	11	18341	15223
12	27-Dec-16	12	18681	15393
12	27-Dec-16	13	18531	15467
12	27-Dec-16	14	18425	15461
12	27-Dec-16	15	18264	15425
12	27-Dec-16	16	18465	15614
12	27-Dec-16	17	19152	16377
12	27-Dec-16	18	20133	17251
12	27-Dec-16	19	19812	17081
12	27-Dec-16	20	19831	16939
12	27-Dec-16	21	19654	16656
12	27-Dec-16	22	19102	16083
12	27-Dec-16	23	18520	15219
12	27-Dec-16	24	17582	14293
12	28-Dec-16	1	16789	13560
12	28-Dec-16	2	16340	13129
12	28-Dec-16	3	16081	12873
12	28-Dec-16	4	16068	12801
12	28-Dec-16	5	16167	12922

12	28-Dec-16	6	16699	13429
12	28-Dec-16	7	17553	14341
12	28-Dec-16	8	18556	15379
12	28-Dec-16	9	18910	15770
12	28-Dec-16	10	18977	15987
12	28-Dec-16	11	18851	15992
12	28-Dec-16	12	18823	16051
12	28-Dec-16	13	18946	15972
12	28-Dec-16	14	19388	15922
12	28-Dec-16	15	19471	16056
12	28-Dec-16	16	19839	16384
12	28-Dec-16	17	20383	17148
12	28-Dec-16	18	20704	18156
12	28-Dec-16	19	21023	17879
12	28-Dec-16	20	20895	17532
12	28-Dec-16	21	20518	17159
12	28-Dec-16	22	19679	16473
12	28-Dec-16	23	18804	15477
12	28-Dec-16	24	17599	14358
12	29-Dec-16	1	16970	13579
12	29-Dec-16	2	16591	13071
12	29-Dec-16	3	16424	12854
12	29-Dec-16	4	16441	12909
12	29-Dec-16	5	16522	13050
12	29-Dec-16	6	17276	13548
12	29-Dec-16	7	17840	14352
12	29-Dec-16	8	18989	15373
12	29-Dec-16	9	19312	15691
12	29-Dec-16	10	19571	16027
12	29-Dec-16	11	19785	16261
12	29-Dec-16	12	19906	16347
12	29-Dec-16	13	19972	16375
12	29-Dec-16	14	19672	16198
12	29-Dec-16	15	19658	16079
12	29-Dec-16	16	19608	15942
12	29-Dec-16	17	20227	16745
12	29-Dec-16	18	21026	17671
12	29-Dec-16	19	20968	17603
12	29-Dec-16	20	20642	17328
12	29-Dec-16	21	20325	17002
12	29-Dec-16	22	19824	16422
12	29-Dec-16	23	18852	15421
12	29-Dec-16	24	17792	14364
12	30-Dec-16	1	17214	13527
12	30-Dec-16	2	16621	13014
12	30-Dec-16	3	16482	12780
12	30-Dec-16	4	16195	12729

12	30-Dec-16	5	16258	12816
12	30-Dec-16	6	16728	13199
12	30-Dec-16	7	17531	14021
12	30-Dec-16	8	18104	14906
12	30-Dec-16	9	18614	15350
12	30-Dec-16	10	19051	15756
12	30-Dec-16	11	19367	16025
12	30-Dec-16	12	19282	16055
12	30-Dec-16	13	19289	16018
12	30-Dec-16	14	19110	15829
12	30-Dec-16	15	19109	15837
12	30-Dec-16	16	19445	16104
12	30-Dec-16	17	20232	16890
12	30-Dec-16	18	21182	17958
12	30-Dec-16	19	21034	17807
12	30-Dec-16	20	20679	17563
12	30-Dec-16	21	20475	17235
12	30-Dec-16	22	19840	16641
12	30-Dec-16	23	19080	15829
12	30-Dec-16	24	18143	14708
12	31-Dec-16	1	17788	13934
12	31-Dec-16	2	17235	13450
12	31-Dec-16	3	17024	13105
12	31-Dec-16	4	16794	12938
12	31-Dec-16	5	16719	12861
12	31-Dec-16	6	16825	12984
12	31-Dec-16	7	16636	13321
12	31-Dec-16	8	17700	13990
12	31-Dec-16	9	18172	14605
12	31-Dec-16	10	18709	15138
12	31-Dec-16	11	19072	15515
12	31-Dec-16	12	19115	15738
12	31-Dec-16	13	19255	15718
12	31-Dec-16	14	19057	15502
12	31-Dec-16	15	19008	15505
12	31-Dec-16	16	19079	15629
12	31-Dec-16	17	19970	16475
12	31-Dec-16	18	20648	17340
12	31-Dec-16	19	20309	16921
12	31-Dec-16	20	19673	16260
12	31-Dec-16	21	19160	15658
12	31-Dec-16	22	18436	15195
12	31-Dec-16	23	18045	14758
12	31-Dec-16	24	17562	14153

		Ontario Demand	Fraction of Annual Demand
	1	12384867	9%
	2	11471763	8%
	3	11302963	8%
	4	10409920	8%
	5	10470808	8%
	6	11101521	8%
	7	12497616	9%
	8	13113359	10%
	9	11072260	8%
	10	10518677	8%
	11	10697636	8%
	12	11948357	9%
Total		136989747	

RPP Period Start	Fraction of current yea	Fraction of next year's demand
May	50.2%	0
Nov	16.5%	33%

750 kWh/month	2010	2011	2012	2013	2014	2015
Electricity					68.78	75.51
Distribution					32.67	36.03
Transmission					10.25	11.92
Regulatory					4.5	4.68
DRC					5.25	5.25
Tax					15.79	17.34
OCEB					-13.72	-15.07
Total	104	105	112	116.41	123.51	135.65

2016
82.61
37.57
12.75
4.75
0
17.9
0
155.58

IESO analysis, revised from OPO.

HOEP (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 18.14	$ 23.93	$ 25.74	$ 27.17	$ 30.50	$ 34.24	$ 36.08

Class A GA (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 40.72	$ 39.88	$ 38.26	$ 36.87	$ 38.08	$ 33.27	$ 31.98

Class B GA (2016$/MWh)

	2016	2017	2018	2019	2020	2021	2022
Revised Base	$ 90.86	$ 88.99	$ 85.37	$ 82.27	$ 84.96	$ 74.23	$ 71.36

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 40.45	$ 34.82	$ 44.05	$ 39.06	$ 39.89	$ 39.22	$ 40.29	$ 41.66	$ 47.07	$ 46.06

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 30.20	$ 32.17	$ 29.84	$ 28.08	$ 30.08	$ 28.89	$ 26.21	$ 24.78	$ 21.63	$ 21.46

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
$ 67.39	$ 71.78	$ 66.57	$ 62.65	$ 67.12	$ 64.47	$ 58.47	$ 55.29	$ 48.26	$ 47.88

2033	2034	2035
$ 48.01	$ 49.79	$ 55.81

2033	2034	2035
$ 19.52	$ 17.89	$ 12.63

2033	2034	2035
$ 43.54	$ 39.92	$ 28.18

Revised Base Case with updated share values (provided by Joyce Poon, IESO				
Residential Monthly Bills - Based on TOU Shares (65% Off-Peak, 17% Mid-Peak, 18% On-peak)				
Updated 2016 History with Revised share values on TOU rates	**2016 Act**		**2017**	
Distribution	$	39.91	$	41.61
Transmission	$	12.80	$	13.10
Regulated Charges (Wholesale Uplift and DRC)	$	4.88	$	5.72
DRC	$	-	$	-
Commodity	$	82.50	$	85.00
Total Bill before Taxes	$	140.08	$	145.43
HST	$	18.21	$	18.91
8% Rebate on Bill before Taxes	$	-	$	(11.63)
Total Bill After Rebate	**$**	**158.29**	**$**	**152.71**

Feb 17, 2017)		
2018	2019	2020
$ 43.26	$ 44.88	$ 46.71
$ 13.40	$ 13.79	$ 14.67
$ 5.89	$ 5.99	$ 6.21
$ -	$ -	$ -
$ 85.31	$ 85.71	$ 92.23
$ 147.86	$ 150.36	$ 159.82
$ 19.22	$ 19.55	$ 20.78
$ (11.83)	$ (12.03)	$ (12.79)
$ 155.25	$ 157.88	$ 167.81

	2021		**2022**		**2023**
$	48.17	$	49.50	$	51.14
$	14.93	$	15.58	$	15.86
$	6.50	$	6.70	$	7.07
$	-	$	-	$	-
$	88.37	$	89.29	$	91.42
$	157.96	$	161.06	$	165.49
$	20.54	**$**	**20.94**	**$**	**21.51**
$	(12.64)	$	(12.89)	$	(13.24)
$	165.86	$	169.12	$	173.77

	2024	2025	2026	2027
$	52.59	$ 54.35	$ 55.70	$ 57.37
$	16.12	$ 16.50	$ 16.90	$ 17.26
$	7.13	$ 7.75	$ 7.85	$ 8.04
$	-	$ -	$ -	$ -
$	92.18	$ 97.56	$ 91.49	$ 98.19
$	168.02	$ 176.17	$ 171.94	$ 180.86
$	**21.84**	**$ 22.90**	**$ 22.35**	**$ 23.51**
$	(13.44)	$ (14.09)	$ (13.76)	$ (14.47)
$	176.42	$ 184.97	$ 180.54	$ 189.90

	2028	2029	2030	2031
$	58.60	$ 60.02	$ 61.47	$ 62.99
$	17.57	$ 17.92	$ 18.26	$ 18.60
$	8.16	$ 8.34	$ 8.48	$ 8.78
$	-	$ -	$ -	$ -
$	97.05	$ 94.28	$ 94.41	$ 94.68
$	181.38	$ 180.57	$ 182.61	$ 185.05
$	**23.58**	**$ 23.47**	**$ 23.74**	**$ 24.06**
$	(14.51)	$ (14.45)	$ (14.61)	$ (14.80)
$	190.45	$ 189.59	$ 191.74	$ 194.31

	2032	2033	2034	2035
$	64.35	$ 65.56	$ 66.60	$ 67.41
$	18.92	$ 20.05	$ 20.30	$ 20.54
$	8.80	$ 8.98	$ 9.10	$ 9.36
$	-	$ -	$ -	$ -
$	95.17	$ 94.61	$ 94.55	$ 90.30
$	187.25	$ 189.19	$ 190.56	$ 187.60
$	**24.34**	**$ 24.59**	**$ 24.77**	**$ 24.39**
$	(14.98)	$ (15.14)	$ (15.24)	$ (15.01)
$	196.61	$ 198.65	$ 200.09	$ 196.98

From:	Bruno Amara
To:	John Kim
Subject:	FW: Energy Models
Date:	Wednesday, April 26, 2017 11:52:21 AM
Attachments:	Financial Model and the Risk Based Outlook.msg
Sensitivity:	Confidential

---

fyi

From: Bruno Amara
Sent: Wednesday, April 26, 2017 11:51 AM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Sensitivity: Confidential

I noted below less focus on explanation of models, but I think that probably is a starting point. Ultimately I think one has to talk about risk with framework of assumption embodied in the models.

From: Bruno Amara
Sent: Wednesday, April 26, 2017 11:02 AM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Sensitivity: Confidential

Fyi, see below. I guess the focus is less on an explanation/critique of the energy/OPG models and more on program risks. So let's think about how to organize that. See below for some risks that come to mind. Let's 1) start with the filling out list, 2) think if there is a sensible way to organize the risks 3) brief description of risk and implications (quantifying sensitivities if possible)

1. Risk due to unanticipated changes in electricity demand (e.g. move to off-grid, demand lower than projected)
2. Interest rate risks
3. Risks related to delivering on FHP mandate (25% reduction, increased constrained to inflation)
4. Potential risks related to Trust purchasing/not purchasing assets per plan
5. Potential risk to Province w.r.t. recovering cost of equity
6. Potential risk if capital markets underfund
7. Fiscal risk if issues with proposed structure and provincial funding must be expensed
8. Risks associated with off ramp if program is wound down

Can you guys work together on this over the next couple of days. I'd like to meet Friday to discuss. Take a look at Didem's email to Energy as well for other possible risk factors that they may be

interested in.

I will set up a meeting with Didem for next week (probably Wednesday-Friday sometime).

Thanks
Bruno

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: Wednesday, April 26, 2017 9:18 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi John, Hi Bruno!

So sorry for the delay in getting back to you.

Now that the direction/approach has been approved and announced, our intent is not to question the current construct or the policy decision that has been made, rather it is for us to collectively work together to identify potential financial risks and to create a risk-based outlook that would allow the government to proactively manage these risks.

I am attaching the email we sent to energy as well, as it provides a list of questions we have already shared with them. By no means an exhaustive list, these questions we were intended to initiate a dialogue and start building that risk based outlook.

Clearly lots of work ahead. Looking forward to working with you, and benefitting from your insights and advice on this journey.

Should we set up some time for next week?

Cheers,
Didem

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April-25-17 3:10 PM
To: Proulx, Didem (TBS)
Cc: Bruno Amara
Subject: RE: Energy Models

Sensitivity: Confidential

Hi Didem,

Following up on this.

Thanks,

John

From: John Kim
Sent: Wednesday, April 19, 2017 6:15 PM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Didem,

Let's aim for a sit down session here at the OFA early next week.

If you can give us a sense of the work that you're doing and your objectives, that'd be helpful. This week, we're all hands on deck with the Document but early next week we're hoping to connect.

John

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>;

Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

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From: Didem Proulx (MTCU) []
To: Tim Christie (ENERGY) [Tim.Christie@ontario.ca]; Justin Malecki (ENERGY) [Justin.Malecki@ontario.ca]
CC: Sophie Liu (TCU) [Sophie.Liu@ontario.ca]; Sandy Ng (MCSCS) [Sandy.Ng@ontario.ca]; Ben Shannon (EDU) [Ben.Shannon@ontario.ca]; Dan Singh (EDU) [Dan.Singh@ontario.ca]; Veinot, Cindy (TBS) [Cindy.Veinot@ontario.ca]; Nadine Petsche (MOF) [Nadine.Petsche@ontario.ca]; Felix Fung (MOF) [Felix.Fung@ontario.ca]
Subject: Financial Model and the Risk Based Outlook
Date: Tuesday, April 18, 2017 16:55:03

Dear Tim and Justin,

First of all, let me say thank you once again for making time for our call on April 3, 2017 and for giving us a high level overview of the model that was used to develop the cost estimates that were included in the ministry's March submission. Late last week, we received a copy of the model and the one that developed by OPG. Seeing the models and details included in the spreadsheets have been very helpful. Thank you for the part you have played in getting these spreadsheets over to us.

As mentioned during our call, our desire to better understand the model, the assumptions and financial impacts is not intended to question the current construct or the policy decision that has been made, rather it is for us to collectively work together to identify potential financial risks and to create a risk-based outlook that would allow the government to proactively manage these risks.

With that in mind, we wanted to see if we can get together to talk about the models in detail. We have outlined some questions below, which can hopefully help serve as a guide for our discussions. Having said that, given you are so much closer to this file than we are, if there is anything we may have missed, please feel to let us know/add it to the list of discussion items.

1. **Understanding the Assumptions:**
    - What are the assumptions included in the base case scenario – explicitly and implicitly?
    - Would it be possible to breakdown the assumptions into categories:
        - Exogenous variables (like exchange rates and interest rates, which will the government has no control over and has to take as given)
        - Policy parameters being introduced as part of this package (like % increases allowed in any given period, etc.)
        - Endogenous variables (electricity usage patterns, natural gas-electricity substitution, etc.) which may or will change over time, but can be impacted through other measures.
    - The OPG deck had included the sensitivity analysis of a number of the key variables. Have there been any runs/scenarios testes to see how the overall impacts would change if a number of the variables change at the same time? Like best case, worst case scenarios?
    - What are variables in the previous (8% proposal) that have included this model? How could the observed variances in the previous proposal manifest within the current proposal and what actions are planned to mitigate this risk?
    - Are there elements or assumptions that have been excluded from the model (e.g. changing population demographics and associated usage patterns, etc.). Do we have a rough sense of what potential carry on risks from excluding what is out-of-scope?

2. Understanding the Impact of the Model:

- We appreciate that the model is based on the average Toronto Hydro customer, and that the rebate/impact will be 25% on the average customer (with any given customers rebate being different given their consumption, location/distributor, etc.). Has there been any analysis done on:
  i. what these differentiated impacts may be (based on different usage patterns, different geographies (urban/rural), at the sub-population level?
  ii. how the financial requirements may go up and down based on different users and their usage patterns? How will that risk/fluctuations be managed? How will these financial impacts be distributed among the government, the entity and the rate payers?
- Based on our discussion, we understand that you had made the simplifying assumption that interest is not paid through the smoothing period, and rolled into the debt balance. If our understanding of the OPG model is accurate, they are assuming that interest payments are made along the way. Given they are carrying the same debt ceiling number and a very similar trajectory, should we assume that they are deferring/smoothing the assets in slightly different way?

3. Understanding the Impact of the Baseline:

Given all the financial impacts are calculated from the black line, we would greatly appreciate having a better understanding of the base (black line) – IESO forecast (2016 actual - 2035). Our understanding is that the baseline model already includes:

i. the following cost components: distribution, transmission, regulatory charges, DRC, Commodity, HST, and the 8% rebate

ii. the following factors/considerations:

- Cancellation of LRP (large renewable procurement) II
- Cancellation of EFW (energy from waste)
- Expansion of ICI (Industrial Conservations Initiatives
- Each component changes in a non-linear manner per year over time up to 2035; assumptions/factors to inform these changes unknown

- "Commodity" and "Distribution" are the two biggest components and hence price drivers.
- Looking at the factors with the most significant changes:
  - Does it already take into account the transmission assets reaching retirement age?
  - Does it already take into account other investment decisions in conservation, generation and transmission?
- Other external factors: climate change; technology disruption; continually decreasing demand and over-supply
  - IESO forecasts Ontario's base load generation from 215-2020 to exceed demand by 42.3 million MWh
  - When we sell to other jurisdictions at loss ($32.6M in 2014; selling at loss

since 2006), how does it affect the bill?

- 2035-2050: straight line extrapolation only; any changes in the above factors would significantly impact the typical bill?

So sorry for the rather lengthy email. Hope we can meet to discuss in greater detail. We would be happy to set something up, if you are agreeable.

Thank you,
Didem

From: John Kim
To: Ronald Kwan
Cc: Bruno Amara
Subject: FW: Equity Financing
Date: Monday, April 24, 2017 12:49:23 PM

Fyi.

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Monday, April 24, 2017 12:44 PM
To: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>
Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>
Subject: RE: Equity Financing

Hi,

Energy has agreed to record these additional purchases of OPG shares on its financials.

In terms of the appropriation for 2017-18, Energy proposes the following (subject to input from others):

- The total debt forecast for the year starting May 1 2017 ending April 30 2018 is $2.5B including interest. Taking one month off that to align with the province's fiscal year gives $2.3B; of which up to 49% is anticipated to be financed via equity injections. This results in an equity injection requirement of approximately $1.1B for this fiscal year.

- Proposed forecasting buffer:

    - OEB has only allocated 50% of the benefit until the legislation passes, which may reduce the requirement for May and June. However, given that we don't know with certainty how the OEB will reassess RPP, we propose to leave the appropriated equity amount at $1.1B.
    - OPG also plans to borrow a small percentage of the 49% from the market. This amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.
    - Both of these elements also provide a buffer against other forecasting uncertainties.

We are working with ENE staff to develop a TB submission that will incorporate this request. In the meantime, we are happy to chat if you have questions.

Thanks,
Scott

-----Original Message-----
From: Veinot, Cindy (TBS)
Sent: April 22, 2017 10:48 AM
To: Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Agreed. OPG Trust has not yet been created.

The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.

The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.

Cindy

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: Ken Kandeepan
Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Hi Helen

I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.

You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.

Thanks

Ken k

> On Apr 22, 2017, at 8:18 AM, Graham, Helen (TBS) <Helen.Graham@ontario.ca> wrote:
>
> Ken, we had understood 1.2 is possibly a go-forward number, but the correct amount for 17-18 should be prorated, as there will not be 12 months of activity. Is that correct?
>
> I thought the trust actually has already been created, but I could be wrong about that.
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Ken Kandeepan
> Sent: Saturday, April 22, 2017 12:08 AM
> To: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
> Subject: RE: Equity Financing
>
>
> Hi All
>
> There seems to be considerable confusion on this issue and hopefully I can clear that up with this email.
>
>
> · The Trust has nothing to do with the Province, it will be created by OPG and will be consolidated with OPG, not with the Province and is essentially not an issue with regard to the estimates process.
>
> · The objective of this estimates exercise is to allow the Province, or more specifically the Ministry of Energy to invest a certain amount of funds in OPG. In other words the Province's equity investment in OPG will increase.
>
> · The Province provides cash to OPG, reducing its cash assets and its Investment in OPG, an asset account will increase, in effect one asset is exchanged for another.
>
> · As such an operating asset needs to be set up hopefully in Energy's estimates that allows the Province to make the payment to OPG.
>
> · The amount will be around $1.2 billion, however, Scott should able to provide a more precise number.
>
>
> Thanks and I am available for a discussion tomorrow, if anyone wishes further clarification, pls call me on my cell at 647-202-4373.

>
> Ken K
>
>
>
>
> From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
> Sent: Friday, April 21, 2017 8:30 PM
> To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
> Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
> Subject: RE: Equity Financing
>
> Sorry, 1 more question on this that I hope MOF/ENE and the OFA can help me answer. Scott/Katilin, your finance corporate shop may be able to help with this question too.
>
> I believe the Trust will be held by OPG. Since this is case, then it wouldn't be an operating asset that we need to show in the Estimates (as the Estimates generally don't show assets of consolidated entities). Instead, we would need to show a payment from MOF or Energy to the trust, and then a reversing adjustment below the line (but all of this would be in expense, not assets)?. In other words, how does MOF/ENE propose this to be shown in Printed Estimates?
>
> Thanks - happy to chat further.
>
> Felix
>
>
> From: Fung, Felix (TBS)
> Sent: April-21-17 8:17 PM
> To: Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS)
> Subject: RE: Equity Financing
>
> Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:
>
> 1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
> 2) confirmation of the location of where this operating asset will show up (Ministry, admin data

info)
> 3) a business case rationale explaining the purpose and why this is needed
>
> As per our conversation, we are currently in the midst of preparing for Printed Estimates - as such, we have an extremely short runway for this item to be included (we have until possibly Tuesday).
>
> Once we have the necessary information from you, we will then need to send it up to senior officials here, and also ensure that DMs of both Finance and Energy have an opportunity to review/sign off.
>
> Thanks - happy to chat further should you have any questions.
>
> Felix
>
>
>
> From: Strang, James (TBS)
> Sent: April-20-17 4:36 PM
> To: Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF)
> Cc: Graham, Helen (TBS); Fung, Felix (TBS); Hosick, Sarah (TBS)
> Subject: FW: Equity Financing
>
> Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).
>
> Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.
>
> The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.
>
> James
>
> From: Fung, Felix (TBS)
> Sent: April 11, 2017 1:43 PM
> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> FYI
>
> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM

> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> The OFA note we received.
>
> From: Fung, Felix (TBS)
> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
>
>
> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>
> Regards,
> Salman
>
>
> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
>
> Greetings,
>
> Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.
>

> Kind regards,
>
> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
>
>
> _____
>
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From:	Strang, James (TBS)
To:	Ken Kandeepan; John Kim; Psinas, John (TBS); Scott Nelms (ENERGY); Montgomery, Kaitlin (MOF)
Cc:	Helen Graham (MOF); Felix Fung (MOF); Hosick, Sarah (TBS)
Subject:	FW: Equity Financing
Date:	Thursday, April 20, 2017 4:36:27 PM
Attachments:	BN - GA Equity Injection Structure v6_Markup2Clean.docx

Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).

Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.

The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.

James

From: Fung, Felix (TBS)
Sent: April 11, 2017 1:43 PM
To: Veinot, Cindy (TBS)
Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

FYI

From: Strang, James (TBS)
Sent: April-11-17 11:58 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS)
Subject: FW: Equity Financing - Working Group Note

The OFA note we received.

From: Fung, Felix (TBS)
Sent: April 4, 2017 10:47 AM
To: Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
Sent: April-04-17 10:45 AM
To: Fung, Felix (TBS)
Cc: Bruno Amara; Adam Prokop
Subject: FW: Equity Financing - Working Group Note

Hi Felix,

Forwarding this to you as well. Please see attached.

Regards,
Salman

From: Adam Prokop
Sent: Tuesday, April 04, 2017 10:38 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>
Subject: Equity Financing - Working Group Note

Greetings,

Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Formatted: Highlight

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2R1]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK5]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK6]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC7]: Not quarterly?

Commented [JK8R7]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ210]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From:	John Kim
To:	Shajee Kathirgamanathan; Salman Qadir; Adam Prokop
Cc:	Gavin He
Subject:	FW: Equity Financing
Date:	Monday, April 24, 2017 12:50:17 PM

Fyi.

Shajee, take a look at the 50% until legislation passes comment. Not sure if it relates to what we were looking at with OEB's RPP report.

From: John Kim
Sent: Monday, April 24, 2017 12:49 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Equity Financing

Fyi.

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Monday, April 24, 2017 12:44 PM
To: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>
Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>
Subject: RE: Equity Financing

Hi,

Energy has agreed to record these additional purchases of OPG shares on its financials.

In terms of the appropriation for 2017-18, Energy proposes the following (subject to input from others):

- The total debt forecast for the year starting May 1 2017 ending April 30 2018 is $2.5B including interest. Taking one month off that to align with the province's fiscal year gives $2.3B; of which up to 49% is anticipated to be financed via equity injections. This results in an equity injection requirement of approximately $1.1B for this fiscal year.

- Proposed forecasting buffer:

    - OEB has only allocated 50% of the benefit until the legislation passes, which may reduce the requirement for May and June. However, given that we don't know with

certainty how the OEB will reassess RPP, we propose to leave the appropriated equity amount at $1.1B.

- OPG also plans to borrow a small percentage of the 49% from the market. This amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.
- Both of these elements also provide a buffer against other forecasting uncertainties.

We are working with ENE staff to develop a TB submission that will incorporate this request. In the meantime, we are happy to chat if you have questions.

Thanks,
Scott

-----Original Message-----
From: Veinot, Cindy (TBS)
Sent: April 22, 2017 10:48 AM
To: Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Agreed. OPG Trust has not yet been created.

The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.

The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.

Cindy

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: Ken Kandeepan
Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Hi Helen

I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.

You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.

Thanks

Ken k

> On Apr 22, 2017, at 8:18 AM, Graham, Helen (TBS) <Helen.Graham@ontario.ca> wrote:
>
> Ken, we had understood 1.2 is possibly a go-forward number, but the correct amount for 17-18 should be prorated, as there will not be 12 months of activity. Is that correct?
>
> I thought the trust actually has already been created, but I could be wrong about that.
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Ken Kandeepan
> Sent: Saturday, April 22, 2017 12:08 AM
> To: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
> Subject: RE: Equity Financing
>
>
> Hi All
>
> There seems to be considerable confusion on this issue and hopefully I can clear that up with this email.
>
>
> · The Trust has nothing to do with the Province, it will be created by OPG and will be consolidated with OPG, not with the Province and is essentially not an issue with regard to the estimates process.
>
> · The objective of this estimates exercise is to allow the Province, or more specifically the Ministry of Energy to invest a certain amount of funds in OPG. In other words the Province's equity investment in OPG will increase.
>
> · The Province provides cash to OPG, reducing its cash assets and its Investment in OPG, an

asset account will increase, in effect one asset is exchanged for another.
>
> · As such an operating asset needs to be set up hopefully in Energy's estimates that allows the Province to make the payment to OPG.
>
> · The amount will be around $1.2 billion, however, Scott should able to provide a more precise number.
>
>
> Thanks and I am available for a discussion tomorrow, if anyone wishes further clarification, pls call me on my cell at 647-202-4373.
>
> Ken K
>
>
>
>
> From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
> Sent: Friday, April 21, 2017 8:30 PM
> To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
> Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
> Subject: RE: Equity Financing
>
> Sorry, 1 more question on this that I hope MOF/ENE and the OFA can help me answer. Scott/Katilin, your finance corporate shop may be able to help with this question too.
>
> I believe the Trust will be held by OPG. Since this is case, then it wouldn't be an operating asset that we need to show in the Estimates (as the Estimates generally don't show assets of consolidated entities). Instead, we would need to show a payment from MOF or Energy to the trust, and then a reversing adjustment below the line (but all of this would be in expense, not assets)?. In other words, how does MOF/ENE propose this to be shown in Printed Estimates?
>
> Thanks - happy to chat further.
>
> Felix
>
>
> From: Fung, Felix (TBS)
> Sent: April-21-17 8:17 PM
> To: Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS)

> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS)
> Subject: RE: Equity Financing
>
> Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:
>
> 1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
> 2) confirmation of the location of where this operating asset will show up (Ministry, admin data info)
> 3) a business case rationale explaining the purpose and why this is needed
>
> As per our conversation, we are currently in the midst of preparing for Printed Estimates - as such, we have an extremely short runway for this item to be included (we have until possibly Tuesday).
>
> Once we have the necessary information from you, we will then need to send it up to senior officials here, and also ensure that DMs of both Finance and Energy have an opportunity to review/sign off.
>
> Thanks - happy to chat further should you have any questions.
>
> Felix
>
>
>
> From: Strang, James (TBS)
> Sent: April-20-17 4:36 PM
> To: Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF)
> Cc: Graham, Helen (TBS); Fung, Felix (TBS); Hosick, Sarah (TBS)
> Subject: FW: Equity Financing
>
> Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).
>
> Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.
>
> The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.
>
> James

>
> From: Fung, Felix (TBS)
> Sent: April 11, 2017 1:43 PM
> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> FYI
>
> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> The OFA note we received.
>
> From: Fung, Felix (TBS)
> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
>
>
> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>
> Regards,
> Salman
>
>
> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim

<John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
>
> Greetings,
>
> Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.
>
> Kind regards,
>
> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
>
>
> _____
>
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From:	Bruno Amara
To:	Adam Prokop; Shajee Kathirgamanathan; Salman Qadir
Cc:	Gavin He; John Kim
Subject:	FW: Equity Injection Note
Date:	Wednesday, April 12, 2017 2:22:47 PM
Attachments:	BN - GA Equity Injection Structure_Apr12_SIFB_markup2.docx

See SFPB's comments. I'll set up a meeting.

From: Darren Scanlan
Sent: Wednesday, April 12, 2017 2:02 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Equity Injection Note

Hi John, Bruno,

Please find attached comments on the note. Happy to discuss.

Thanks,
Darren

From: Francisco Chinchon
Sent: Wednesday, April 12, 2017 2:00 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Darren was finalizing our comments. We could discuss after you review.

From: John Kim
Sent: Wednesday, April 12, 2017 1:59 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Should we have internal division chat first or invite CMD and FTD right away? I'm flexible.

From: Bruno Amara
Sent: Wednesday, April 12, 2017 1:57 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

..in the discussion this afternoon? If so I'll send the note. Would 3pm work?

From: John Kim
Sent: Wednesday, April 12, 2017 1:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

And Ken indicated he'd like to partake as well (along with John P.).

From: Bruno Amara
Sent: Wednesday, April 12, 2017 11:04 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

Hi Francisco/Darren

Attached is latest equity injection note which pulls together the various discussions to date, including the note that you had sent to us previously regarding the H1 process. If you could review, perhaps we could discuss later this afternoon as your time permits. I think next step would be to review with folks upstairs who are on the equity working group (Carlos, Mike Manning, Jim Devine).

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

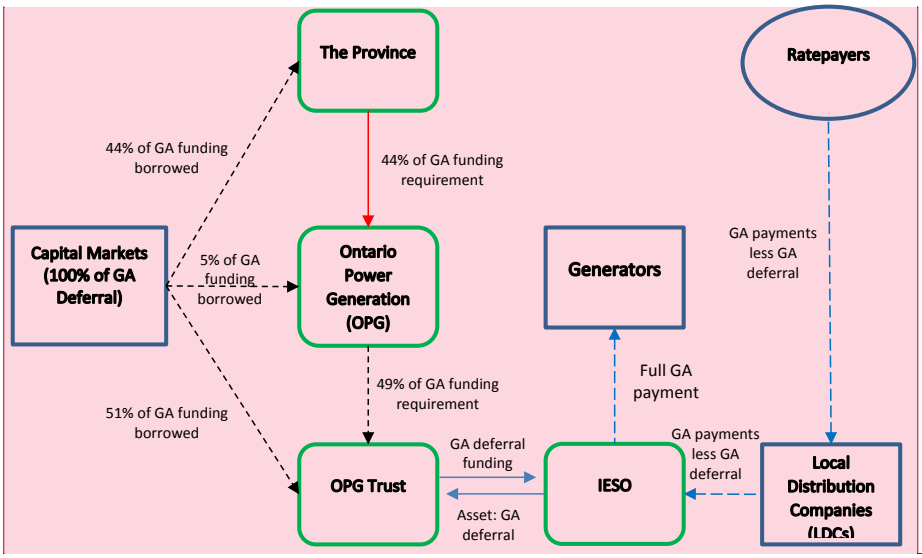
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



Commented [FC1]: I would suggest rewording the 44% label going to the Province to "Provincial borrowing" as now somehow suggests that there is a perfect matching between the borrowing and the equity contribution.

OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover all financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection. Although the Province would be entitled to any net income associated with the incremental equity it would mean that it would be out-of-pocket for servicing the cost of debt associated with the equity contribution.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG if it is to match the purchase (different timing would introduce carrying costs to OPG and/or the Province). In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

Commented [FC2]: I don't believe the $20 mark is relevant. The key concept is that equity is being issued at book value.

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]

Commented [JK3]: I think this is because the financing and administrative costs would be recovered through ratepayers?

- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]

Commented [DS4]: More for discussion, has OPG (on behalf of the OPG Trust) raised any concerns on borrowing from the markets on a monthly basis?

For the borrowing through OEFC, would just need to ensure approvals are in place in advance as OEFC Board meets quarterly. Shouldn't be an issue though as I think this has been done in the past where OEFC provides a total borrowing limit and OPG can draw down over a period of time.

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province, through the Ministry of Energy, would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

- The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

    - Operating Assets are fiscally neutral, they represent a balance sheet item, but given they are included in the Estimates they are visible to the public, in this case through the Minister of Energy.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

    - ~~Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province~~

Commented [JK5]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC6R5]: That is correct.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by any ROE earned on the incremental equity. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

Commented [FC7]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity. In general preferred shares are treated at 50% for rating rations (check).

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   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing, that would mean that the Province may need to demonstrate that the expected ROE is higher than the cost of funding these new shares. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or

otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
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- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From: Bruno Amara
To: John Kim
Subject: FW: Equity Injection Note
Date: Tuesday, April 18, 2017 9:21:29 AM
Attachments: BN - GA Equity Injection Structure_Apr18_markup.docx
BN - GA Equity Injection Structure_Apr12_SIFB_markup2.docx

Hi John

Regarding meeting this afternoon: In our meeting with SIFB we followed up on a couple of issues but didn't go through SIFB edits individually. In 1st attachment is updated note where I accepted the SIFB edits that I thought were straightforward. 2nd attachment is with all SIFB edits/comments.

Let me know if you want to circulate this version for meeting this afternoon or other?

Bruno

From: Darren Scanlan
Sent: Wednesday, April 12, 2017 2:02 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Equity Injection Note

Hi John, Bruno,

Please find attached comments on the note. Happy to discuss.

Thanks,
Darren

From: Francisco Chinchon
Sent: Wednesday, April 12, 2017 2:00 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Darren was finalizing our comments. We could discuss after you review.

From: John Kim
Sent: Wednesday, April 12, 2017 1:59 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Should we have internal division chat first or invite CMD and FTD right away? I'm flexible.

From: Bruno Amara
Sent: Wednesday, April 12, 2017 1:57 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

..in the discussion this afternoon? If so I'll send the note. Would 3pm work?

From: John Kim
Sent: Wednesday, April 12, 2017 1:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

And Ken indicated he'd like to partake as well (along with John P.).

From: Bruno Amara
Sent: Wednesday, April 12, 2017 11:04 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

Hi Francisco/Darren

Attached is latest equity injection note which pulls together the various discussions to date, including the note that you had sent to us previously regarding the H1 process. If you could review, perhaps we could discuss later this afternoon as your time permits. I think next step would be to review with folks upstairs who are on the equity working group (Carlos, Mike Manning, Jim Devine).

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch

Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

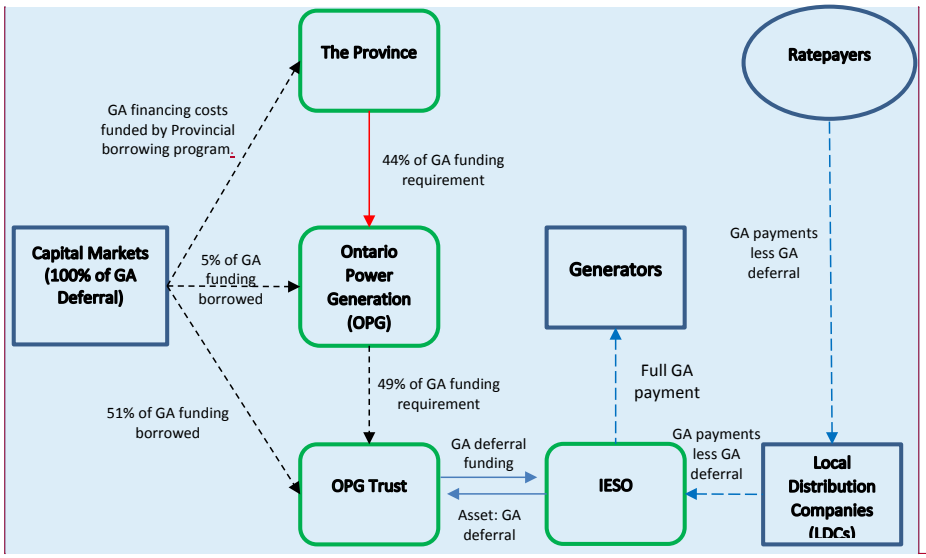
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

Commented [FC1]: I would suggest rewording the 44% label going to the Province to "Provincial borrowing" as now somehow suggests that there is a perfect matching between the borrowing and the equity contribution.

Commented [BA2R1]: See rewording

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover all financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection. Although the Province would be entitled to any net income associated with the incremental equity it would mean that it would be out-of-pocket for servicing the cost of debt associated with the equity contribution.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG if it is to match the purchase (different timing would introduce carrying costs to OPG and/or the Province). In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

Commented [FC3]: I don't believe the $20 mark is relevant. The key concept is that equity is being issued at book value.

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]

Commented [JK4]: I think this is because the financing and administrative costs would be recovered through ratepayers?

- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]

Commented [DS5]: More for discussion, has OPG (on behalf of the OPG Trust) raised any concerns on borrowing from the markets on a monthly basis?

For the borrowing through OEFC, would just need to ensure approvals are in place in advance as OEFC Board meets quarterly. Shouldn't be an issue though as I think this has been done in the past where OEFC provides a total borrowing limit and OPG can draw down over a period of time.

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province, through the Ministry of Energy, would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

- The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

    - Operating Assets are fiscally neutral, they represent a balance sheet item, but given they are included in the Estimates they are visible to the public, in this case through the Minister of Energy.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by

Commented [BA6]: Wouldn't balance sheet be public as well?

Commented [JK7]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC8R7]: That is correct.

Commented [FC9]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

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Electricity Finance Branch, Ontario Financing Authority
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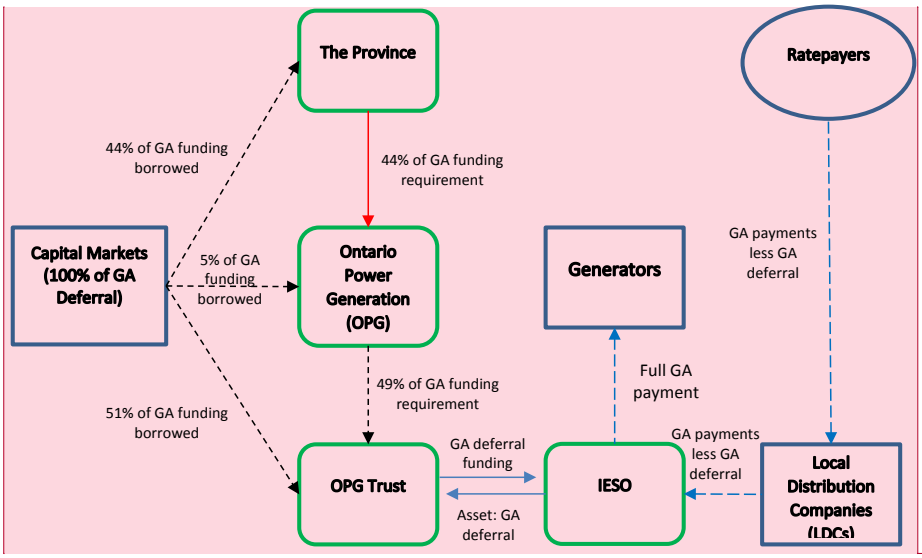

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4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

    - ~~Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province~~

Commented [JK5]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC6R5]: That is correct.

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- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From:	John Kim
To:	Bruno Amara
Subject:	FW: Equity Injection WEorking Group
Date:	Monday, March 20, 2017 8:07:22 AM

Fyi and could you lead this working group for EFB pls?

From: Ken Kandeepan
Sent: Friday, March 17, 2017 11:58 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: Equity Injection WEorking Group

Hi John

As discussed pls include John Psinas as a member of this working group. John will ensure that all debt related accounting issues plus cash flow/cash management considerations are addressed, until there is a representative from OPCD, he can also ensure that any accounting issues that relate to the Province are communicated in a timely fashion to OPCD for resolution.

Thanks

Ken k

From: Gavin He
To: John Kim; Bruno Amara; Shajee Kathirgamanathan
Subject: FW: Fair Energy Plan request
Date: Friday, March 24, 2017 3:37:41 PM

Hi all,

It seems that Energy won't be able to provide us with the requested data until early next week.

I know Ron mentioned that for the first request, we should try to generate that within the Division, so do we want to try for that?

Thanks,
Gavin He

From: Pearce, Christopher (MOF) [mailto:Christopher.Pearce@ontario.ca]
Sent: Friday, March 24, 2017 3:30 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Fair Energy Plan request

FYI

From: Katona, Keley (ENERGY)
Sent: March 24, 2017 3:26 PM
To: Pearce, Christopher (MOF)
Cc: McLean, David (MOF)
Subject: Re: Fair Energy Plan request

Will have to provide you with this early next week. More edits were requested. Also, we are including some content on market renewal at the request of your MO.

On Mar 24, 2017, at 3:19 PM, Pearce, Christopher (MOF) <Christopher.Pearce@ontario.ca> wrote:

> Hi Keley,
> Sorry to press – anything you can provide on this request?
>
> ---
>
> **From:** Pearce, Christopher (MOF)
> **Sent:** March 17, 2017 11:44 AM
> **To:** Katona, Keley (ENERGY)
> **Cc:** McLean, David (MOF)
> **Subject:** RE: Fair Energy Plan request
>
> Great, thanks!
>
> ---

From: Katona, Keley (ENERGY)
Sent: March 17, 2017 11:43 AM
To: Pearce, Christopher (MOF)
Cc: McLean, David (MOF)
Subject: RE: Fair Energy Plan request

Aiming to get you something as soon as possible.

From: Pearce, Christopher (MOF)
Sent: March-17-17 11:37 AM
To: Katona, Keley (ENERGY)
Cc: McLean, David (MOF)
Subject: RE: Fair Energy Plan request

Hi Keley,
Just checking in on this request. Any update you can provide?
Thanks!
Chris

From: Katona, Keley (ENERGY)
Sent: March 13, 2017 11:26 AM
To: Pearce, Christopher (MOF)
Cc: McLean, David (MOF)
Subject: Re: Fair Energy Plan request

Thanks, we will work this up

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Pearce, Christopher (MOF)
Sent: Monday, March 13, 2017 10:49 AM
To: Katona, Keley (ENERGY)
Cc: McLean, David (MOF)
Subject: Fair Energy Plan request

For our electricity narrative, we've been asked by our MO to include some language that explains the average savings for different consumers under the recently announced Fair Hydro Plan and additional businesses eligible for the expanded ICI program. Hoping you can provide some assistance with the request below.

1) Please provide examples of how much, on average, would be saved (including existing OREC, GA smoothing, first nations credit and RRRP/OESP for those applicable) by:

- Someone living in a city
- Someone living in the country
- Someone living in the north

- Someone who is low-income
- Someone who is First Nations
- A small business
- A small industrial business (new ICI participant)
- A large Industrial Business (existing ICI participant)

If possible, we've been asked to provide plain language responses to these questions with as few qualifiers as possible.

2) How many businesses would be eligible to benefit from the ICI expansion (0.5 MW threshold)[A].

- If possible and for clarity, how many are covered currently (i.e. 3 MW threshold)[B] and how many are expected to be covered by the (1MW threshold)[C]? Such that [A] + [B] + [C] is total number of businesses that will benefit from ICI.

It would be much appreciated if they could provide us with the above information by **EOD Thursday, March 16th, 2017**. Please let us know if you have any questions.

Christopher Pearce
Senior Policy Advisor
Deputy Minister's Office | Ministry of Finance
p: 416.325.8736 | bb: 647.981.7551
christopher.pearce@ontario.ca

From: Gavin He
To: John Kim; Bruno Amara; Shajee Kathirgamanathan; Adam Prokop; Salman Qadir
Subject: FW: Fair Energy Plan request
Date: Monday, April 03, 2017 4:15:01 PM
Attachments: Examples for The Document 20170403 ESP.DOCX

Hi all,

Please find attached the response to our first request to Energy.

Regards,
Gavin He

From: Pearce, Christopher (MOF) [mailto:Christopher.Pearce@ontario.ca]
Sent: Monday, April 03, 2017 4:09 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Fair Energy Plan request

From: Katona, Keley (ENERGY)
Sent: April 3, 2017 4:08 PM
To: Pearce, Christopher (MOF)
Cc: McLean, David (MOF)
Subject: RE: Fair Energy Plan request

Hi,
I'm not sure if this is still required, however, see attached. Apologies for the delay.
Keley

From: Pearce, Christopher (MOF)
Sent: March-13-17 10:49 AM
To: Katona, Keley (ENERGY)
Cc: McLean, David (MOF)
Subject: Fair Energy Plan request

For our electricity narrative, we've been asked by our MO to include some language that explains the average savings for different consumers under the recently announced Fair Hydro Plan and additional businesses eligible for the expanded ICI program. Hoping you can provide some assistance with the request below.

1) Please provide examples of how much, on average, would be saved (including existing OREC, GA smoothing, first nations credit and RRRP/OESP for those applicable) by:

- Someone living in a city
- Someone living in the country

- Someone living in the north
- Someone who is low-income
- Someone who is First Nations
- A small business
- A small industrial business (new ICI participant)
- A large Industrial Business (existing ICI participant)

If possible, we've been asked to provide plain language responses to these questions with as few qualifiers as possible.

2) How many businesses would be eligible to benefit from the ICI expansion (0.5 MW threshold)[A].

- If possible and for clarity, how many are covered currently (i.e. 3 MW threshold)[B] and how many are expected to be covered by the (1MW threshold)[C]? Such that [A] + [B] + [C] is total number of businesses that will benefit from ICI.

It would be much appreciated if they could provide us with the above information by **EOD Thursday, March 16th, 2017**. Please let us know if you have any questions.

Christopher Pearce
Senior Policy Advisor
Deputy Minister's Office | Ministry of Finance
p: 416.325.8736 | bb: 647.981.7551
christopher.pearce@ontario.ca

Response

Q. Please provide examples of savings for someone living in a city, someone living in the country, someone living in the north, someone who is low-income, someone who is First Nations, a small business, a small industrial business (new ICI participant) and a large industrial business (existing ICI participant).

The table below are indicative examples of the ratepayer impact under Ontario's Fair Hydro Plan compared to what electricity consumers would otherwise have paid.

The estimates are illustrative examples, not reflective of any "average" household or business.

Consumer Type	Estimated Savings	Percentage Reduction
1. Typical Residential Consumer[1]	$40 / month	25%
2. Residential Consumer (Low Density)[2]	$225 / month	40%
3. Residential Consumer (Medium Density)[3]	$200 / month	40%
4. Low-income Residential Consumer (Existing OESP Participant) [4]	$60 / month	50%
5. First Nations on reserve Residential Consumer[5]	$175 / month	60%
6. Small Business (RPP eligible consumer	$50 / MWh	25%

[1] Based on a typical residential consumer connected to Toronto Hydro consuming 750 kWh per month with the current typical 65% off-peak, 17% mid-peak and 18% on-peak consumption. The percentage reduction includes the 8%.

[2] Based on a R2 residential consumer connected to Hydro One, heating with electricity and consuming 2,500 kWh per month with the current typical 65% off-peak, 17% mid-peak and 18% on-peak consumption which is similar to Hydro One's example customer (66% off, 17% mid, 17% on-peak). The percentage reduction includes the 8%.

[3] Based on a R1 residential consumer living in the north connected to Hydro One, heating with electricity and consuming 2,500 kWh per month with the current typical 65% off-peak, 17% mid-peak and 18% on-peak consumption which is similar to Hydro One's example customer (66% off, 17% mid, 17% on-peak). The percentage reduction includes the 8%.

[4] Based on low-income residential consumer in a household of 4 with a combined income less than $28,000 connected to Alectra, consuming 750 kWh per month and currently receiving the basic OESP credit with the current typical 65% off-peak, 17% mid-peak and 18% on-peak consumption which is similar to Hydro One's example customer (66% off, 17% mid, 17% on-peak). The percentage reduction includes the 8%.

[5] Based on a First Nations residential consumer connected to Hydro One as a R2 consumer, consuming 1,300 kWh per month, with current participation in RRRP, assumes the First-Nations On-Reserve Delivery Credit would reduce the delivery line to zero. Also assumes the current typical 65% off-peak, 17% mid-peak and 18% on-peak consumption which is similar to Hydro One's example customer (66% off, 17% mid, 17% on-peak). The percentage reduction includes the 8%.

with demand < 50 kW)[6]		
7. Small Industrial (New ICI participant)[7]	$50 / MWh	30%
8. Large Industrial (Existing ICI participant)[8]	$3 / MWh	3%

Notes:

GA refinancing is expected to come into effect on May 1, 2017. OESP costs to ratepayers will be eliminated as of May 1st, while the RRRP regulatory charge will be reduced this summer. Enhanced OESP credits will be in place for May 1st, 2017, while the broadened RRRP benefits and the First Nations Delivery Credit will be in place this summer. New ICI participants are expected to see an impact on bills beginning July 2017.

Q. How many businesses are eligible for the Industrial Conservation Initiative (ICI)?

In 2011, the government introduced the Industrial Conservation Initiative (ICI), to provide a stronger incentive for large electricity consumers to reduce their electricity consumption during peak periods, thereby improving reliability and lowering total system costs.

In the 2014 Budget, Ontario committed to expanding ICI by lowering the eligibility threshold for the industrial sectors from five megawatts (MW) to three. As a result of this commitment, since July 1, 2015, the expanded ICI program has helped approximately 300 of Ontario's largest energy consumers save on their electricity bills.

In September 2016 Speech From the Throne, Ontario committed to expanding the ICI program by lowering the eligibility threshold for participation to one megawatt and expanding participation beyond existing customer types, increasing the number of eligible consumers by more than 1,000.

[6] Based on a small business eligible for the Regulated Price Plan connected to Oshawa Hydro with 34% on-peak, 47% mid-peak and 18% off-peak consumption (i.e., operates around standard business hours), and includes the impact of global adjustment (GA) financing and tax-basing of social programs. Includes the 8%.

[7] Based on a small industrial connected to Brantford Hydro benefiting from the funding of social programs from provincial revenues and opts in to the expanded ICI would see a reduction of about 30% if they reduce their consumption during Ontario's top five peaks. Assumes HOEP reflects the arithmetic average over time, and a load factor of about 30% to derive the peak demand factor (PDF).

[8] Based on a large industrial connected to ENWIN and currently participates in ICI and would benefit funding of social programs from provincial revenues. Assumes HOEP reflects the arithmetic average over time, a load profile would yield the average forecasted Class A GA and minimal impact from ICI expansion.

On March 2, 2017, a further expansion of ICI was announced as part of Ontario's Fair Hydro Plan, to specifically allow manufacturers with peak demand above 500 kW the ability to participate in ICI.*

*Pending Cabinet approval

Q. What is Market Renewal?

The current electricity market design for Ontario has been in place since 2002. Under this market design, electricity reliability has been ensured in the province by entering into long-term supply contracts with electricity generators. While this approach has helped to modernize our electricity generating infrastructure, it has proven to be inflexible to changing electricity system conditions and led to price increases.

As our electricity system continues to evolve, the Independent Electricity System Operator (IESO) is leading the Market Renewal project to develop an ambitious set of initiatives to fundamentally redesign Ontario's electricity markets and ensure future energy needs are met in a reliable, flexible and cost effective manner. Key initiatives within the Market Renewal include:

- Development of new "day-ahead" markets to improve efficiency and transparency;
- Introduction of a capacity auction to procure supply in a cost effective manner; and
- Enhancements to intertie scheduling to improve system flexibility.

The IESO has commissioned an independent expert to assess the potential benefits and costs from the Market Renewal. In a recent draft report, the expert has estimated potential net benefits of $3.4 billion from the Market Renewal over the period from 2021 to 2030. The project benefits are expected to outweigh the costs by a margin of 18:1. Further benefits are expected in the long-term as the electricity system changes in response to the Market Renewal.

Stakeholders have been engaged in Market Renewal from the outset and continue to provide important feedback as initiatives moves into the next phase. Market Renewal will also leverage best practice from similar activities in other jurisdictions to further improve the overall efficiency benefits.

Market Renewal is a critical component of Ontario's Fair Hydro Plan (OFHP). Several initiatives in the OFHP, such as GA refinancing and the expansion of support programs will deliver immediate and significant relief to consumers. Market Renewal, along with efficiency work being undertaken by the Ontario Energy Board, focusses on delivering meaningful cost savings over the long-term, while ensuring that the province has a reliable, flexible and efficient electricity system to meet future needs.

From: John Kim
To: Adam Prokop
Cc: Bruno Amara
Subject: FW: Fair Hydro Plan -- Equity Injection/OPG Share Purchase
Date: Monday, March 20, 2017 10:55:09 AM

Fyi.

-----Original Message-----
From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Tuesday, March 14, 2017 11:50 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: YAO Anthea -FUNDMGMT <anthea.yao@opg.com>
Subject: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Hello everyone
I'm hoping to have a quick kick off call this week amongst ourselves to discuss developing the work plan for this portion of the plan. OPG will need some input from the Province in order to structure the equity injection process on our side.
I will send a meeting invite for later this week with a brief agenda of some of the items we will need to consider.
Hope to talk to you all then.

Regards,
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416 clara.greco@opg.com

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From: Bruno Amara
To: John Kim
Subject: FW: Fair Hydro Plan
Date: Friday, March 17, 2017 10:29:04 AM

Hi John

Fyi, below is my discussion with Felix so far. I'm thinking that if we do a teleconference, we could ask Darren and/or Francisco to sit in to speak about the Hydro One process. We can speak to what we understand of the mechanics of the GA financing and what would be required.

Bruno

From: Bruno Amara
Sent: Friday, March 17, 2017 10:25 AM
To: Felix Fung (MOF) <Felix.Fung@ontario.ca>
Subject: RE: Fair Hydro Plan

Hi Felix

Thanks for your response. I'm not 100% sure, but we were thinking that the GA Financing, although, it does not have a fiscal impact, would require approval for the equity injection that the Province is making. I.e., it is my understanding that the Province would be purchasing and asset - OPG equity. Would this not be an operating asset expense requiring TB approval. I was speaking to colleagues who have been dealing with the Hydro One dispositions, and they noted that an operating asset approval was required for the capital contribution to Hydro Ona at the time of the IPO. I can set-up a discussion if you wish. There are folks here that may have a bit more insight than I do. Let me know.

Thanks
Bruno

From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
Sent: Friday, March 17, 2017 9:50 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi Bruno,

Happy to chat further – for the electricity support programs (e.g. OESP, RRRP, etc) – the appropriation for these programs would be through ENE and will be put through as part of our wrap

up / Document process. However, ENE will need to report back in the Spring on the detailed program design for these programs.

For GA – there is no appropriation required, but Ministry is to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment.

Let me know if you would like to chat further.

Thanks,
Felix

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March-17-17 9:36 AM
To: Fung, Felix (TBS)
Subject: Fair Hydro Plan

Hi Felix

I'm trying to follow the various aspects of mplementation of the Fair Hydro Plan and who is doing what. I have a few initial questions with respect to the appropriations side of the implementation of the Plan, in particular, the refinancing the GA.

Is your team now engaged with that now that pre-announcement work is done?
I assume appropriation would be through ENE of would it be MoF?
Are there timelines for when this would go to TB?

Thanks, your help is appreciated.
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

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From: John Kim
To: Adam Prokop
Cc: Bruno Amara; Salman Qadir
Subject: FW: Fair Hydro Plan PILs amendments
Date: Thursday, April 20, 2017 8:12:02 AM
Attachments: 23344385_4 (003).docx

Another....

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Wednesday, April 19, 2017 8:40 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Fair Hydro Plan PILs amendments

Further to my last email, here is a set of proposed amendments focused on the PILs issue.

Sent with BlackBerry Work (www.blackberry.com)

Version 2

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

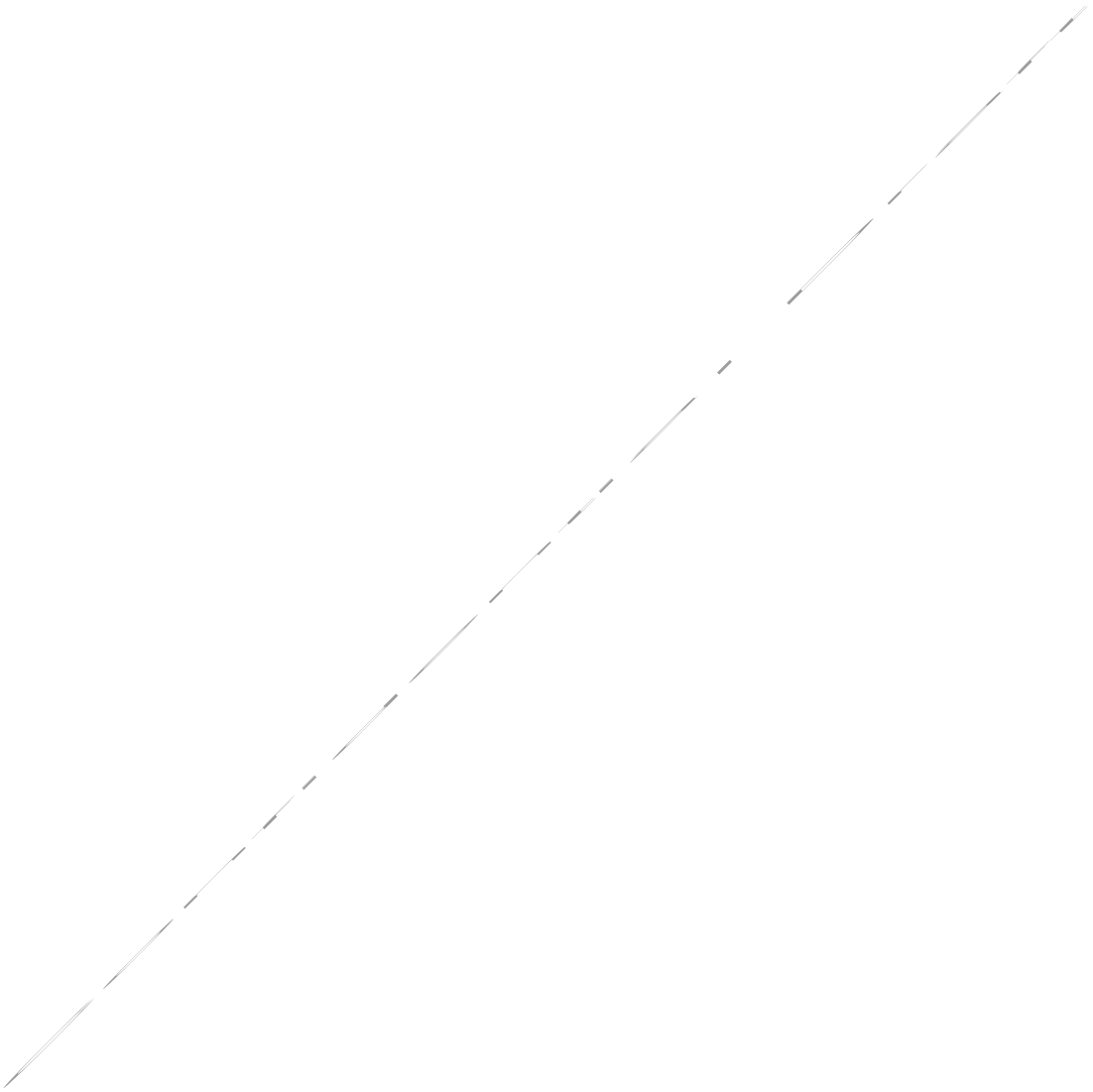
(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.



From:	John Kim
To:	Bruno Amara
Subject:	FW: Fair Hydro Plan
Date:	Wednesday, April 12, 2017 10:03:56 AM
Attachments:	FHP programs3.docx

Ron was mentioning about the Electricity Cost Relief Programs numbers…..that 2017-18 numbers seem to be about half of the amount plus the OREC. He seems to think it should be ¾. He asked to give TBS a call.

Just an FYI.

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:22 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Ron:

Emily is reminding me that Affordability Fund was eventually approved for $100m rather than $200m. In the attached I have revised and added a footnote.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund3		100	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**100**	**665**	**753**	**829**	**892**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet
3. TB/MBC note March 3 requests approval for $100m for Affordability Fund rather than $200m per march 1 cabinet submission

From:	Ronald Kwan
To:	John Kim; Emily Kerr
Cc:	Gavin He
Subject:	FW: Fair Hydro Plan: preliminary items for discussion tomorrow
Date:	Wednesday, March 08, 2017 4:24:54 PM
Attachments:	image003.png image001.png FA1710 Preliminary Question for the Province.docx

Hi,

FYI, and any comments?

Thanks,
Ron

From: Schuurman, Tim (MOF) [mailto:Tim.Schuurman@ontario.ca]
Sent: March-08-17 15:22
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>; Michael Reid (ENERGY) <Michael.Reid@ontario.ca>; Kaili Sermat-Harding (ENERGY) <Kaili.Sermat-Harding@ontario.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Selena Esmail (MOF) <Selena.Esmail@ontario.ca>; Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>; Keley Katona (ENERGY) <Keley.Katona@ontario.ca>
Subject: FW: Fair Hydro Plan: preliminary items for discussion tomorrow

FYI – please see attached an early read on what the FAO team will be looking for from us at tomorrow's meeting.

I think the background technical deck and other materials Energy is bringing to the meeting will answer a lot of these questions. With respect to the second part, the data request, this is likely to be forthcoming post-meeting in the form of a letter from the FAO to the DM's of Energy and Finance. As part of tomorrow's discussions, the FAO will be looking for advice on whether this data request is: (1) available; (2) is the right data set/universe to be requesting, given the area they plan to study. We should collectively be prepared to offer our advice on that - - as once the data request is officially received, we'll need to fulfill it.

See you then.

Tim Schuurman
Assistant Deputy Minister
Office of the Budget, Ministry of Finance
7 Queen's Park Cres.
Toronto ON M7A 1Z1
Tel: 416-327-0173

Office of the Budget
MINISTRY of FINANCE

From: Peter Harrison [mailto:pharrison@fao-on.org]
Sent: March-08-17 3:02 PM
To: Schuurman, Tim (MOF)
Cc: Matt Gurnham; Matthew Stephenson; Luan Ngo; David West
Subject: Fair Hydro Plan: preliminary items for discussion tomorrow

Hi Tim,

We've prepared some questions for preliminary discussion tomorrow. We've also included a list of some of the information we will likely be requesting for this project as a heads up and perhaps for discussion as relevant.

Kind regards,

Peter

Peter Harrison
Chief Financial Analyst

FAO | Financial Accountability Office of Ontario

2 Bloor Street W, Suite 900, Toronto, Ontario M4W 3E2
p.+1.416.579.0494 | pharrison@fao-on.org | skype: peterharrison
www.fao-on.org[fao-on.org] | Follow us on twitter[twitter.com] and Linked in[linkedin.com]

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Question for Province: Fair Hydro Plan

FAO project: FA1710

1. Confirm elements included in Fair Hydro Plan (FHP).

2. Explain how GA refinancing will work, including
    a. Specifically how bills will be lowered
    b. What will be associated cash flows between Province, OPG/Trust, IESO, LDC, and ratepayers
    c. How all entities involved will be affected (kept whole)
    d. On an annual basis how will cash flows change over the next 30 years
    e. Clarify what proportion of GA refinancing is contract renegotiation and what proportion is pure refinancing

3. Confirm shift of OESP and RRRP to Provincial funding is permanent

4. Confirm baseline from which 25% reduction in bills is calculated

5. Confirm that the definition of residential customers as relevant to FHP is synonymous with RPP customers.

Data Required by FAO

- Projected annual total cost of electricity service over the next 30 years absent of the Fair Hydro Plan broken down into:
    - Residential and non-residential ratepayers
    - Generation (separated into HOEP and Global Adjustment), delivery and wholesale market costs
- Projected annual fiscal impact of the OESP, RRRP, Affordability Fund and First Nations Delivery Credit

From: Strang, James (TBS)
To: John Kim; Chris Skubel (MGS)
Subject: FW: Follow-Up on the 2017 Budget - FAO
Date: Monday, May 01, 2017 9:58:00 AM
Attachments: image001.png

Hi John, do you have anything to add to the info below regarding Fair Hydro Plan appearing in the 2017 Budget (per the FAO request further down)?

James

Chapter VI:

Where Interim 2016-17 Expense appears, it includes $100M for the Affordability Fund. In table 6.15, it appears on the "Electricity Cost Relief Programs" line under ENERGY.

Where Plan 2017-18 Expense appears, it includes $499M for Social Programs moving to Government Funding (OESP, RRRP, ORFNDC). In table 6.15, it appears on the "Electricity Cost Relief Programs" line under ENERGY.

Medium Term Expense Outlook table 6.12 – Interim 2016-17 includes the $100M mentioned above, Plan 2017-12018 includes $499M mentioned above. 2018-19 & 2019-20 columns includes $753MM in 2018-19 and $829M in 2019-20 under "Other Programs" for Social Programs moving to Government Funding (OESP, RRRP, ORFNDC).

From: Skubel, Chris (TBS)
Sent: May 1, 2017 9:26 AM
To: Strang, James (TBS)
Cc: Fung, Felix (TBS)
Subject: FW: Follow-Up on the 2017 Budget

Hi James – Are you able to assist with the below related to the Fair Hydro Plan question from the FAO?

The OFA has also offered to help out so I'm not sure if that will be of any assistance…

I'm assuming the FAO is just asking about where the Fair Hydro Plan appears in the Total Expense table? (or one of the tables in chapter 6 b of the doc?)

Selena has also set up a meeting from 4-5 today to go over draft responses with a plan to have

answers to the OFA tomorrow, so I apologize for the tight timelines.

Let me know if I can help.

Chris

From: Dutton, Andrea (TBS)
Sent: May-01-17 9:01 AM
To: Skubel, Chris (TBS); Komal, Indira (TBS)
Cc: Fung, Felix (TBS); Luk, Sandy (TBS); Parkash, Ruchi (TBS); Vovk, Igor (TBS)
Subject: FW: Follow-Up on the 2017 Budget

Please see below.

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April-29-17 12:46 PM
To: Dutton, Andrea (TBS)
Subject: RE: Follow-Up on the 2017 Budget

Hi Andrea,

Hope all's well.

On the FHP question, it identifies TBS PEMD. Could you share the draft response? We would like to keep our ADM and DM briefed on the response. If we could help out in any way, let me know as well.

Thanks,

John

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Friday, April 28, 2017 5:43 PM
To: Tim Cook (MOF) <Tim.Cook@ontario.ca>; Andrea Dutton (MOF) <Andrea.Dutton@ontario.ca>; Teuta Dodbiba (MOF) <Teuta.Dodbiba@ontario.ca>; Raj Sharda (MOHLTC) <Raj.Sharda@ontario.ca>; Dorothy Cheung (MCYS) <Dorothy.Cheung@ontario.ca>; Gladys Miu (MOI) <Gladys.Miu@ontario.ca>; Paul Lewis (MOF) <Paul.D.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Kostas Plainos (MOF) <Kostas.Plainos@ontario.ca>
Cc: Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>; Paul Ternamian (MOF) <Paul.Ternamian@ontario.ca>; Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Ghufran Tarin (MOF) <Ghufran.Tarin@ontario.ca>; Nina Arbabzadeh (EDU) <Nina.Arbabzadeh@ontario.ca>; Law, Rex (TBS) <Rex.Law@ontario.ca>; Patrick Laughton (MOF) <Patrick.Laughton@ontario.ca>; Patel, Lesley (MOF) <Lesley.Patel@ontario.ca>
Subject: FW: Follow-Up on the 2017 Budget

Hi Everyone.

As you can see below, the FAO has reached out to make a formal request for information in follow up to yesterday's release of the Budget (BTW we are looking to set up a mtg on Tuesday from 1pm to 2pm with the FAO).

You may have already been forwarded this email from your ADMs but we've also just now received the list of specific additional questions (attached). I've attempted to identify in the attached and below which area is responsible for what, and if I have this wrong, please let me know (and sorry!).

I thought we could do a quick touch base Monday, just to check in on what we might have readily available to be in a position to provide at Tuesday's meeting and what we may need to get back to the FAO on (but pls note that we should not be doing any new analysis to provide a response). I will send out an invite/teleconf so we can discuss.

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Thanks and pls let me know if you have any questions.

From: David West [mailto:dwest@fao-on.org]
Sent: April-28-17 9:32 AM
To: Schuurman, Tim (MOF); Hughes, Karen (TBS); Lewis, Brian (MOF); Veinot, Cindy (TBS)
Cc: Tarin, Ghufran (MOF); Birks, Ryan (MOF); Laughton, Patrick (TBS); Hosick, Sarah (TBS); Luan Ngo; Edward Crummey; Mario Angastiniotis; Nicolas Rhodes
Subject: Follow-Up on the 2017 Budget

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- Assumptions behind the plan to reduce net debt-to-GDP to 35% and eventually to 27%. **OFA**

We'll provide a list later this afternoon that expands somewhat on these question topics.

Happy to discuss any of these requests.

Thanks again for your support,
David

David West
Chief Economist
FAO | Financial Accountability Office of Ontario
2 Bloor Street W, Suite 900, Toronto, Ontario M4W 3E2
t.416.579.1465 | dwest@fao-on.org
www.fao-on.org[fao-on.org]

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From:	Strang, James (TBS)
To:	John Kim; Chris Skubel (MGS)
Subject:	FW: Follow-Up on the 2017 Budget - FAO
Date:	Monday, May 01, 2017 10:26:13 AM
Attachments:	image001.png

Added OREC below.

From: Strang, James (TBS)
Sent: May 1, 2017 9:58 AM
To: Kim, John (OFA); Skubel, Chris (TBS)
Subject: FW: Follow-Up on the 2017 Budget - FAO

Hi John, do you have anything to add to the info below regarding Fair Hydro Plan appearing in the 2017 Budget (per the FAO request further down)?

James

Chapter VI:

Where Interim 2016-17 Expense appears, it includes $100M for the Affordability Fund, $300M for the Ontario Rebate for Electricity Consumers. In table 6.15, both appear in the "Electricity Cost Relief Programs" line under ENERGY.

Where Plan 2017-18 Expense appears, it includes $499M for Social Programs moving to Government Funding (OESP, RRRP, ORFNDC), and $939M for the Ontario Rebate for Electricity Consumers . In table 6.15, both appear on the "Electricity Cost Relief Programs" line under ENERGY.

Medium Term Expense Outlook table 6.12 – Interim 2016-17 includes the $400M mentioned above, Plan 2017-12018 includes $1438M mentioned above. 2018-19 & 2019-20 columns include $1635M in 2018-19 and $1711M in 2019-20 under "Other Programs" for Social Programs moving to Government Funding (OESP, RRRP, ORFNDC) and the Ontario Rebate for Electricity Consumers.

From: Skubel, Chris (TBS)
Sent: May 1, 2017 9:26 AM
To: Strang, James (TBS)
Cc: Fung, Felix (TBS)
Subject: FW: Follow-Up on the 2017 Budget

Hi James – Are you able to assist with the below related to the Fair Hydro Plan question from the

FAO?

The OFA has also offered to help out so I'm not sure if that will be of any assistance…

I'm assuming the FAO is just asking about where the Fair Hydro Plan appears in the Total Expense table? (or one of the tables in chapter 6 b of the doc?)

Selena has also set up a meeting from 4-5 today to go over draft responses with a plan to have answers to the OFA tomorrow, so I apologize for the tight timelines.

Let me know if I can help.

Chris

From: Dutton, Andrea (TBS)
Sent: May-01-17 9:01 AM
To: Skubel, Chris (TBS); Komal, Indira (TBS)
Cc: Fung, Felix (TBS); Luk, Sandy (TBS); Parkash, Ruchi (TBS); Vovk, Igor (TBS)
Subject: FW: Follow-Up on the 2017 Budget

Please see below.

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April-29-17 12:46 PM
To: Dutton, Andrea (TBS)
Subject: RE: Follow-Up on the 2017 Budget

Hi Andrea,

Hope all's well.

On the FHP question, it identifies TBS PEMD. Could you share the draft response? We would like to keep our ADM and DM briefed on the response. If we could help out in any way, let me know as well.

Thanks,

John

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Friday, April 28, 2017 5:43 PM
To: Tim Cook (MOF) <Tim.Cook@ontario.ca>; Andrea Dutton (MOF) <Andrea.Dutton@ontario.ca>; Teuta Dodbiba (MOF) <Teuta.Dodbiba@ontario.ca>; Raj Sharda (MOHLTC) <Raj.Sharda@ontario.ca>; Dorothy Cheung (MCYS) <Dorothy.Cheung@ontario.ca>; Gladys Miu (MOI) <Gladys.Miu@ontario.ca>; Paul Lewis (MOF) <Paul.D.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Kostas Plainos

(MOF) <Kostas.Plainos@ontario.ca>
Cc: Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>; Paul Ternamian (MOF) <Paul.Ternamian@ontario.ca>; Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Ghufran Tarin (MOF) <Ghufran.Tarin@ontario.ca>; Nina Arbabzadeh (EDU) <Nina.Arbabzadeh@ontario.ca>; Law, Rex (TBS) <Rex.Law@ontario.ca>; Patrick Laughton (MOF) <Patrick.Laughton@ontario.ca>; Patel, Lesley (MOF) <Lesley.Patel@ontario.ca>
Subject: FW: Follow-Up on the 2017 Budget

Hi Everyone.

As you can see below, the FAO has reached out to make a formal request for information in follow up to yesterday's release of the Budget (BTW we are looking to set up a mtg on Tuesday from 1pm to 2pm with the FAO).

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David

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From:	Bruno Amara
To:	John Kim
Subject:	FW: Funding the Ontario Fair Hydro Plan - GA Refinancing backgrounder
Date:	Monday, May 01, 2017 10:14:56 AM
Attachments:	Funding the Ontario Fair Hydro Plan - GA Refinancing.docx

Hi John

Fyi, See attached. I haven't read through yet, but forwarding in interests of time.

From: Adam Prokop
Sent: Sunday, April 30, 2017 11:37 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Funding the Ontario Fair Hydro Plan - GA Refinancing backgrounder

Hello team,

I have compiled a backgrounder on the key issues surrounding the funding of the GA refinancing. The file and source documents can be found here: \\ofina.on.ca\ofadfs\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\Funding the FHP - GA Financing

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

Funding the Ontario Fair Hydro Plan – Global Adjustment Refinancing

EXECUTIVE SUMMARY

The Ontario Fair Hydro Plan was announced in March 2017 to lower electricity rates for consumers. A large part of this plan was the refinancing of the global adjustment (GA) charge[1].

Refinancing

In the early years, a portion of the costs covered by the GA would be refinanced to reduce pressure on today's electricity ratepayers. In later years, the cost of refinancing would be recovered from ratepayers. Under current forecasts, the immediate reduction in the GA would be about $2.5 billion per year on average over the first 10 years, with annual interest costs not exceeding $1.4 billion.

The government intends to introduce legislation that would, if passed, enable the Independent Electricity System Operator (IESO) and Ontario Power Generation (OPG) to work together to refinance the GA over a longer period of time. OPG and IESO will be used in a GA deferral structure for a variety of reasons, including:

- The ability of OPG to recognize regulatory assets as a government business enterprise – this allows the costs to be recovered from ratepayers and recognized under an established accounting framework to eliminate fiscal impacts.
- To reduce the borrowing pressure on the Province's credit rating, as debt from OPG is not consolidated on a line-by-line basis.
- To allow for a commercialization process in line with similar structures regarding utility assets from a historical precedent.
- To lower financing costs to ratepayers to allow gradual increases in rates.

Funding Criteria

The current proposal is to have the Province fund up to 44% of the annual GA refinancing (analogous to "GA deferral"). In determining the method of funding for the GA deferral structure, there are several interrelated issues that need to be addressed in order to achieve critical objectives. The following are some of the critical objectives considered in this document:

1. **Maintaining OPG's status as a Government Business Enterprise**
2. **Credit rating agency considerations (including capital structure)**

---

[1] The GA covers the cost of building new electricity infrastructure in the province, as well as delivering Ontario's conservation programs − ensuring that enough electricity supply will be available over the long term. The global adjustment is set monthly to reflect:

- The differences between the wholesale market price for electricity, known as Hourly Ontario Energy Price (HOEP) and:
  - Regulated rates for Ontario Power Generation's nuclear and hydroelectric generating stations;
  - Payments for building or refurbishing infrastructure such as gas-fired and renewable facilities and other nuclear, as well as the contracted rates paid to a number of generators across the province;
- The cost of delivering conservation programs.

Responding to changes in the HOEP, the global adjustment varies from month to month − generally, when the HOEP is lower, the global adjustment is higher in order to cover the costs of regulated and contracted generation.

    a. **Maintaining a good credit rating for OPG**
    b. **Maintaining a good credit rating for tranches in the SPV, particularly the senior tranche for capital markets**
    c. **Maintaining a good credit rating for the Province**
3. **Allowing for the consolidation of the SPV onto OPG's books**
4. **Enabling OPG and the Province to recover the costs of financing**
5. **Maintaining the profitability and viability of the GA deferral structure**
6. **Eliminating or mitigating the annual fiscal impact over the refinancing period**

Funding Options

A variety of funding options from the Province are being considered, in the range between debt and equity, including:

1. **Equity Injection – cash given to OPG in exchange for common shares**
2. **Equity Injection – cash given to OPG in exchange for preferred shares**
3. **Debt – cash given to OPG in exchange for debt (market level interest)**
4. **Other Mezzanine debt – cash given to OPG in exchange for some type of convertible debt**
5. **Debt into SPV – the Province buys debt securities directly from the SPV in exchange for cash**

Recommendation

Based on the available funding options and key objectives, the following risks have been identified in Figure 1:

Figure 1 – Risk Table*

	Common Equity to OPG	Preferred Shares to OPG	Debt to OPG	Other Mezzanine Debt to OPG	Debt to SPV
Maintaining GBE status	M – H	L – M	L – M	L – M	L – M
Credit Rating	L	L – M	M – H	L – M	M
Accounting Consolidation	L – MH	L – MH	L – MH	L – MH	L – MH
Cost Recovery	M – H	L – M	L – M	L - M	L
Profitability & viability	L	L – M	M	L – M	L – M
Fiscal Impact	M	L – M	L – M	L – M	L

**Level of risk of objectives not being achieved*
L = Low, M = Medium, MH = Medium High, H = High

The recommended strategy would be not to limit provincial funding to a certain type of debt or equity, but rather to implement a financing plan that benefits all parties (i.e., the Province, OPG,

IESO, security holders, LDCs, and ratepayers). Such a strategy could involve issuing more equity (e.g., a mix of common and preferred shares) in earlier years to establish the viability of the financing structure, and gradually moving to more debt-like financing options as the financing structure reaches the repayment "inflection point", and as the mechanism establishes a history of profitable operations as well as timely payments.

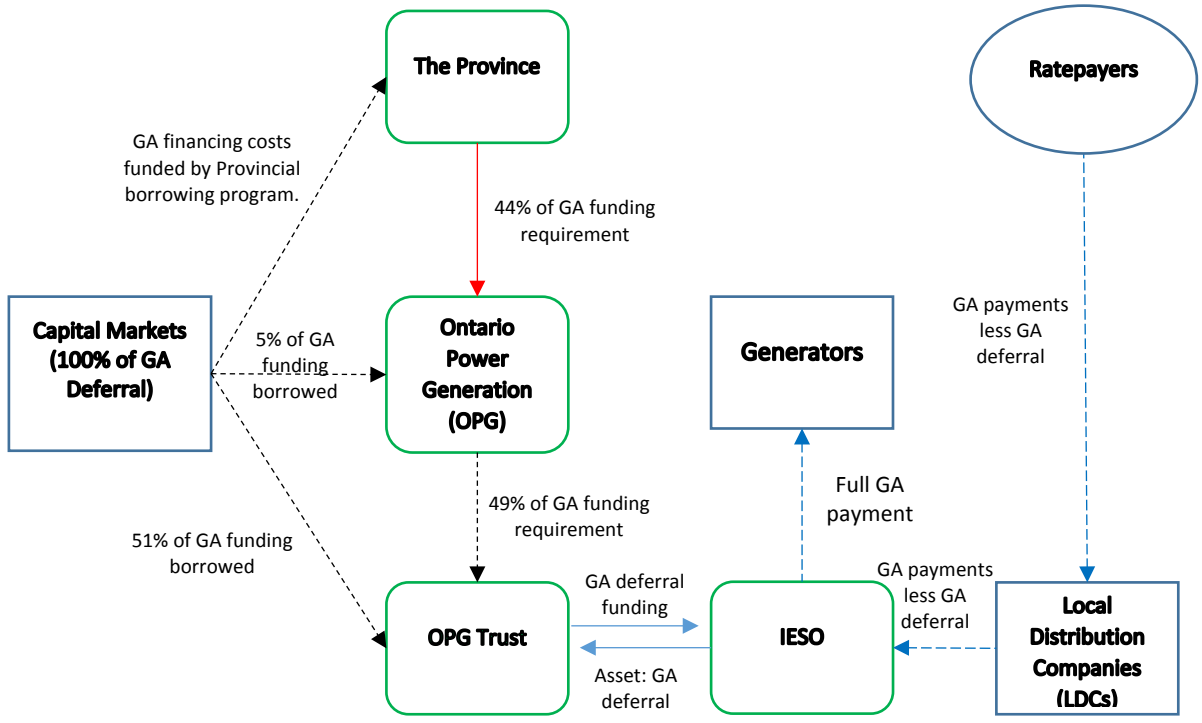
External auditors, accounting experts, and credit rating agencies need to be brought into the discussion to ensure the required objectives can be obtained.

Current Proposed Structure

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators. Figure 2 illustrates a simplified version of the GA refinancing structure.

Figure 2 – GA Refinancing Structure



Based on the OPG white paper (*Appendix B*) - a collection of proposed requirements for the structure to get the preferred accounting treatment from OPG's auditors and accounting advisors - it is important to note that:

- The 44% funding provided by the Province is the **maximum** amount that can be provided to OPG for the SPV, either indirectly (through OPG) or directly (into the SPV).
    - Can be **debt** or **equity**
    - Can be **less than 44%**
    - Nothing in the proposed requirements requires the Province to invest in OPG directly rather than directly in the SPV; **need a written confirmation from external auditors/advisors to illustrate why this is necessary**.
- The 51% of the funding directly into the SPV from the capital markets is **not a minimum** amount that must be provided, based on the language provided.
    - For example, OPG could borrow 20% of the GA deferral from capital markets and separate that into the SPV, the Province could provide 40% of the deferral directly or indirectly, and capital markets could provide the remaining 40% directly into the SPV. This would satisfy the requirements (since the capital markets are funding the OPG's 20%).
    - Rephrased, capital markets must fund the majority of the SPV, either directly or through OPG.
- OPG must own at least 5% of the total debt, and over 50% of the most junior debt in the SPV (i.e., the equity tranche).
    - This is to fulfill consolidation requirements for IFRS and US GAAP for an SPV (explained later).
    - Based on the notion that the minimal amount of the equity tranche is 10% (with OPG owning more than half of this amount).

Critical Objectives

1. Maintaining OPG's status as a Government Business Enterprise

Appendix A highlights the relevant Public Sector Accounting Standards (PSAS or "PS") issued by the Public Sector Accounting Board (PSAB). The December 2014 version is the latest available standard. PSAS is the accounting framework followed by the Province for its financial statements.

A government business enterprise is accounted for under the modified equity method – it is reported at its net asset value (i.e., total assets – total liabilities, with adjustments) on the Provincial accounts, without conforming to PSAB standards or being consolidated on a line-by-line basis. For OPG, even though the company is using US GAAP as its accounting framework, it is now accounted for under the modified equity method using IFRS as the accounting framework. This is the Auditor General's preference, as there are now interim IFRS standards (*IFRS 14 Regulated Deferral Accounts*) that allow for rate regulation. The original rationale for

OPG and Hydro One using US GAAP was because PSAB and IFRS had no standards for rate regulation.

The rationale for using the modified equity method rather than line-by-line consolidation like other government reporting entities is explained under PS 1300.33:

> *Accounting for a government business enterprise by the equity method avoids commingling the independently-managed business enterprise's budget and actual results with those of other government organizations on a line-by-line basis. It also avoids including the business enterprise's gross debt with that of other government organizations as the business enterprise is expected to repay that debt from its own revenues.*

There are four requirements to be considered a government business enterprise (GBE):

> *PS 3070.03 (and PS 1300.28) - a government business enterprise is an organization that* ***has <u>all</u> of the following characteristics****:*
> *(a) It is a separate legal entity with the power to contract in its own name and that can sue and be sued;*
> *(b) It has been delegated the financial and operational authority to carry on a business;*
> *(c) It sells goods and services to individuals and organizations outside of the government reporting entity as its principal activity; and*
> *(d) It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity.*

If one of these conditions fails for OPG, it would lose its status as a GBE, resulting in line-by-line consolidation with the province. This will cause considerable consolidation problems because:

- OPG has rate regulated assets that would likely not be recognized under PSAB in the Provincial accounts – could result in a fiscal impact.
- OPG's nuclear liabilities and assets would be consolidated onto the public accounts, potentially impacting credit ratings.
- In the case of the GA structure, the debt in the SPV from capital markets would be recognized directly on the Province's balance sheet and the offsetting regulatory assets may be derecognized/written down – a fiscal impact.

In terms of the SPV structure, the fourth requirement from PS 3070.03 is the most at risk – if OPG can, in the normal course of its operations, maintain its operations and meets its liabilities from revenues received from sources outside of the government reporting entity. PS 1300.30 and 1300.31.b further explain this standard:

> *.30 A government business enterprise should, in the normal course of its operations, be able to maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity. These revenues include not only amounts from the sale of goods and services, but also* ***transfers received from other governments or sources outside of the government reporting entity****.*

> *.31 When determining if an organization can maintain its operations and meet its liabilities with revenues received from outside of the government reporting entity, the following factors should be considered:*
> *(a) The organization's history of maintaining its operations and meeting its liabilities;*
> *(b) Whether the organization would continue to maintain its operations and meet its liabilities without relying on* ***sales to, or subsidies in cash or kind from, the government reporting entity****;*
> *(c) Past, present and future economic conditions within which the organization operates; and*
> *(d)* ***Whether the organization has realistic and specific plans that show how it expects to be able to maintain its operations and meet its liabilities in the future****.*

There is nothing specific in PSAB about equity injections, but in terms of debt, there is the following standard:

> *PS 3230.09 If a government* ***charges little or no interest to the government business enterprise for the use of debt proceeds****, the difference between the interest cost to the government and the interest charged to the government business enterprise is in the* ***nature of a subsidy****. Such circumstances would be* ***taken into account in assessing if the organization continues to meet the financial self-sustainability requirement*** *inherent in the definition of a government business enterprise in GOVERNMENT REPORTING ENTITY, Section PS 1300.*

For an equity injection from the Province to OPG, there is a risk that it could be viewed as subsidy due to:

a) **The frequency and size of the transactions** – It has been proposed that the equity injection be monthly and over a period of ten years. Such a reliance on continually injected funds without a mandatory "cost" such as interest could be viewed as a subsidy, akin to an interest-free loan.
    a. The notion that OPG is operating as a "going concern" is also threatened by the reliance on the equity funding.

b) Ontario is already the sole shareholder – The Province already owns 100% of OPG, and is essentially dictating that OPG use equity injections for a specific mandate which threatens the idea of autonomy.

c) There needs to be a rate of return that justifies an equity injection from a commercial standpoint: the cost of equity is always higher than the cost of debt due to the lowest claim on assets that an equity holder possesses – debtholders get paid first. Thus, equity holders must be compensated for taking this risk. In order for the equity injection to not be viewed as a subsidy, the return from the GA deferral mechanism must be substantially higher than the cost of borrowing for the Province to fund these equity injections.
    - Several wholly-owned state-owned enterprises (SOEs), which are similar to GBEs in definition, were examined for the rationale behind recapitalization from their respective governments. Australia, Estonia, Hungary, New Zealand, Slovenia, and

Norway all demonstrate that wholly-owned unlisted SOEs have requirements that recapitalizations from the government are subject to minimum expected rates-of-return. This is usually at least the cost of capital or a market comparable rate. Other countries (Chile, Finland, Israel, Korea, Lithuania, Netherlands, Poland, and UK) have no specific mechanisms to ensure market-consistent equity costs, but have several other methods including:

- Recapitalization is subject to a regular feasibility study
- Both public interest and expected financial return are taken into account when deciding on recapitalization
- Considering a market consistent benchmark
- Considering the risk of the investment.

As long as the weighted average return from the SPV (i.e., the rate that is charged to ratepayers) adequately compensates the Province for the risk associated with an equity injection, it is unlikely that the equity injections will be viewed as a subsidy.

In terms of credit ratings, there is nothing in PSAB that dictates that a GBE requires certain ratios or credit ratings in order to maintain that status:

- As of April 6, 2017, OPG has a credit rating of A(low) from DBRS.
- Even if OPG was downgraded in the BBB range, this would still be investment grade.
- OPG would have a higher cost of debt, but this would passed on to consumers (higher cost of debt for the regulated activities, excluding the SPV mechanism).
- The credit rating section will further address rating agency issues.

2. Credit rating agency considerations (including capital structure)

Page 21 from the Cabinet submission PowerPoint (*Appendix C*) states a number of assumptions about the financing of the GA deferral structure, which are assessed below:

- *"Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt, OPG would be downgraded"*.
  - **Comments:**
  - The purpose of the SPV is to separate the risk from the regulatory assets from the business risk of OPG – the SPV is bankruptcy remote if setup correctly.
  - The SPV is consolidated on an accounting basis, but only the percentage of the GA deferral funded directly by OPG to the SPV would be considered as part of the normal operations structure of OPG.
    - However, as DBRS views securitization as a form of debt financing, securitized assets of non-financial companies are normally added back to debt to calculate adjusted debt ratios.

- If OPG goes bankrupt, it will not impact the SPV – OPG has no right to the assets in the SPV as a separate legal entity.
- If the SPV fails, the capital market debtholders (**expected to 51% of the GA deferral)** have the right to the regulatory assets in the SPV that were securitized, but have no recourse from OPG since the SPV is a separate legal entity.
- The tranches that make up the SPV will be given a separate credit rating assessment by rating agencies.

- "*To manage the exposure and minimize the cost of funding. The required funding would be split into 2 buckets:*

  1. 56% from capital markets; and

  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt."
  - **Comments:**
  - The remainder does not need to be financed from the Province – both OPG and the capital markets have the potential to take on more debt from the SPV.
  - The cost of funding for OPG may be minimized, but the cost of funding overall may not be due to the higher cost of equity.
  - "Exposure" is already being minimized through the SPV.
- *The use of equity to fund a portion of the GA deferral allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.*
  - **Comments:**
  - There would be an improvement in net income and the structure theoretically would have no fiscal impact.
- "*Credit rating metrics are generally maintained within established limits*":
  - **Comments:**
  - No supplementary evidence to support this.

Maintaining a strong credit rating for OPG

On April 6, 2017, DBRS confirmed the issuer rating and Unsecured Debt rating of OPG at A(low) as well as its Commercial Paper at R-1 (low). The outlook for OPG was stable, with the ratings supported by four key factors:

1) The reasonable regulatory regime in place for the Company's generation facilities
2) Continuing financial support from its shareholder, the Province of Ontario (rated AA (low) Stable, by DBRS)
3) Strong cash flow-to-debt ratios
4) Strong debt-to-capital ratios

With the GA deferral and recovery mechanism, assuming the supporting legislation is passed, the first two factors would remain strong. In terms of cash flow-to-debt and debt-to-capital ratios, there may be a difference in the total debt and total debt amounts on an accounting, legal, regulatory, and rating agency basis:

- **Accounting basis**: The entire Trust, i.e., 100% of the GA deferral and the associated regulatory assets, would be consolidated onto OPG's books, increasing total debt and total capital.
- **Legal basis**: the SPV is considered separate from OPG.
- **Regulatory basis**: From the latest draft legislation, the expectation is that the SPV would not be part of the rate-setting process. It remains to be seen how equity injections from the Province to OPG would be treated.
- **Rating agency basis**: A discussion with rating agencies needs to be conferenced to confirm how they would treat the debt in the SPV in the calculation of risk assessment ratios such as total debt-to-capital.

DBRS's primary financial risk assessment (FRA) metrics for utilities are highlighted in Figure 3 below:

Figure 3. Regulated Electric, Natural Gas, and Water Utilities – Primary DBRS FRA Metrics

Primary Metric	AA	A	BBB	BB/B
Cashflow-to-debt	> 17.5%	12.5% to 17.5%	10.0% to 12.5%	0.0% to 10.0%
Debt-to-capital	< 55%	55% to 65%	65% to 75%	75% to 90%
EBIT-to-interest	> 2.8x	1.8x to 2.8x	1.5x to 1.8x	1.0x to 1.5x

OPG's historical performance on these key ratios are illustrated below in Figure 4:

Figure 4. OPG Historical DBRS Primary FRA Metrics

(CAD millions)	2015	2014	2013	2012	2011
Cash flow/Total debt 1	33.2%	27.0%	22.9%	20.8%	28.9%
Total debt in capital structure 1, 2	35.9%	36.9%	38.9%	36.9%	36.8%
EBIT gross interest coverage (times) 3	(0.86)	0.24	(1.12)	0.66	0.02
EBITDA gross interest coverage (times) 3	2.89	2.75	2.21	3.15	2.71
(Cash flow - n.w.f.)/Total debt 4	27.5%	21.3%	16.5%	13.8%	21.1%

1 Including operating leases. 2 Adjusted for Accumulated Other Comprehensive Income. 3 Excluding earnings from nuclear fixed asset removal and nuclear waste management funds. 4 Included nuclear waste funding (n.w.f.) payments as they are not discretionary.

OPG has been outperforming two of the three key metrics for the past five years (within AA range), but has been rated at A (low) for several reasons including the negative EBIT coverage, among other factors. *Appendix E* includes additional information from DBRS's general methodology for regulated utilities.

The effect of different scenarios on capital structure, assuming that the Province uses either preferred equity or debt instead of equity injections to finance 44% of the GA deferral annually, is shown below:

Figure 5. Financing effect on Capital Structure ($20.3B total borrowing)

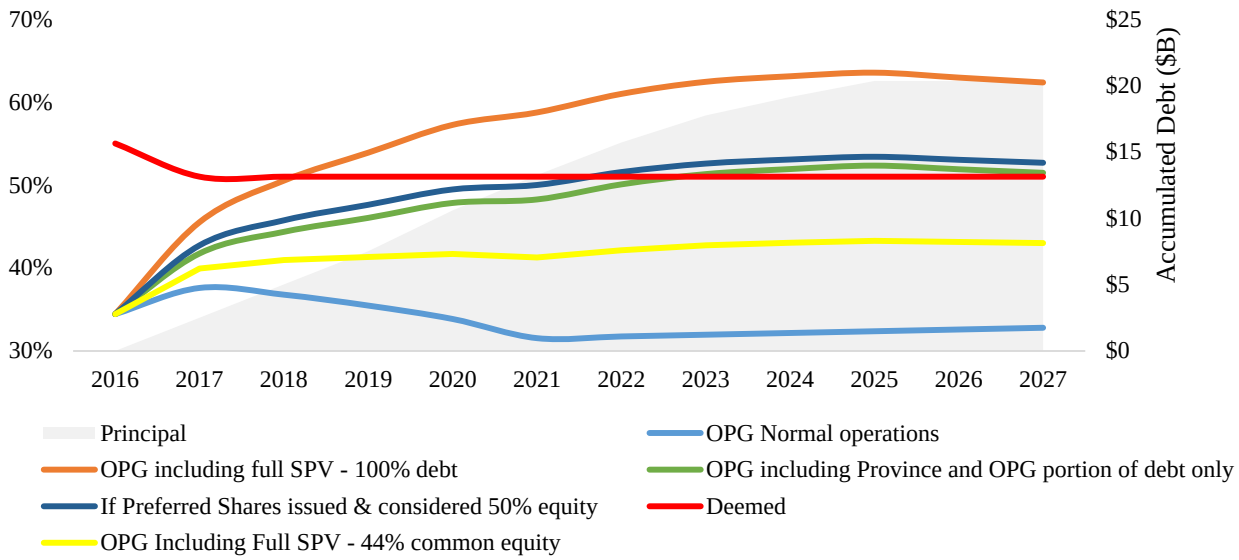
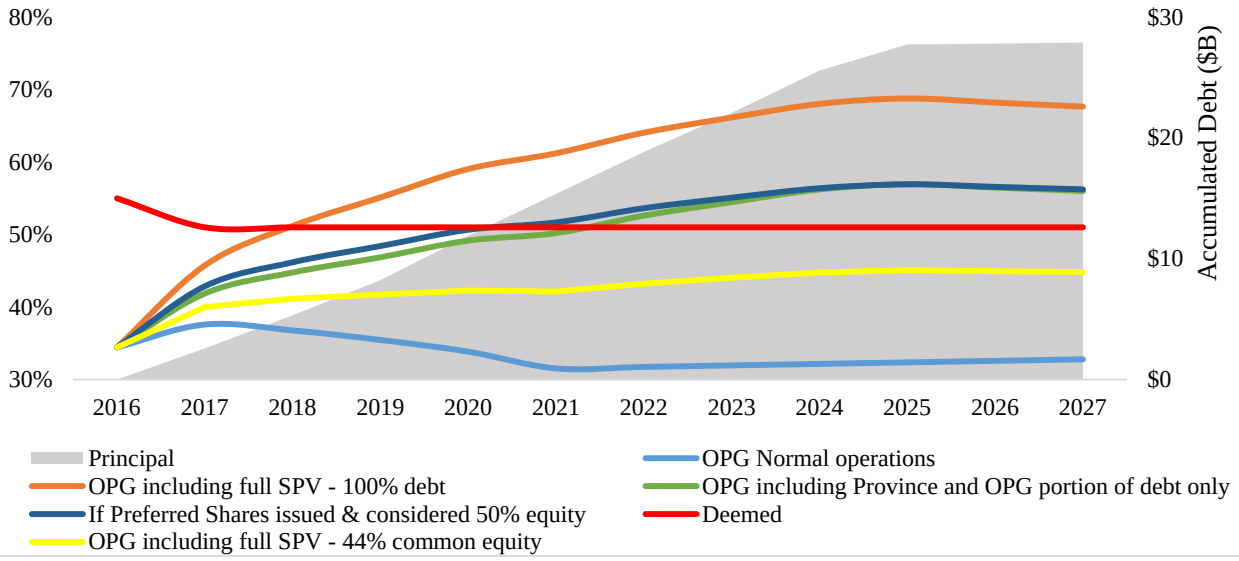


Figure 6. Financing effect on Capital Structure ($28B total borrowing)



**Figures generated from model based on OPG BP forecasts, Ministry of Energy cabinet submission, and internal CEFD assumptions*.

It is recommended that OPG provide a forecast and rationale on key credit rating ratios and capital structure to justify its insistence that common equity is required to maintain a good credit rating.

Maintaining a good credit rating for the SPV

In order to understand the proposed GA financing structure, one can examine the components of the structure and similar historical undertakings.

SPV

An SPV (special purpose vehicle or special purpose entity) is a bankruptcy-remote entity established for the sole purpose of issuing debt securities. The bankruptcy remote component of the SPV is crucial to the securitization and isolates the bondholders from event risk associated with the originator and servicer. The debt securities typically issued by an SPV are asset-backed securities (ABS) which are bonds collateralized by a distinct pool of assets. The most common collateral types found in asset-backed securities are credit card receivables, auto and equipment loans or leases, home equity loans, student loans and installment sales contracts for manufactured housing units.

- The performance of the underlying collateral will largely determine the performance of the bond.
- **In recent conversations, it has been flagged that the proposed structure will not result in a securitization transaction, despite its similarities.**

US Rate Reduction Bonds

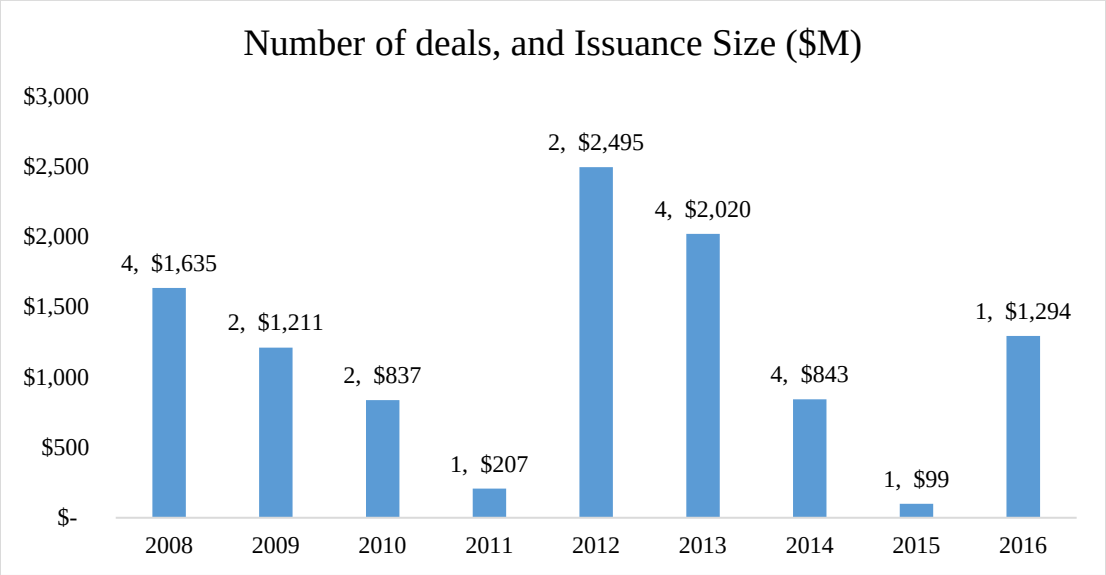
The proposed GA mechanism is most similar to rated reduction bonds (RRBs) from the United States. An RRB is the securitization of a cashflow stream generated by a fee charged to utility consumers. RRBs came into prominence in the US after the passing of the Energy Policy Act of 1992 that led to the privatization of the electricity market. Deregulation of the electric utilities was introduced to foster a competitive environment and to reduce the rates charged to customers. However, when states deregulated utilities, the resulting decrease in revenue caused many utility company assets to become uneconomic to operate. These uneconomic assets are referred to as "stranded assets". RRBs were developed to enable utilities to bridge the gap between the book value of stranded assets in the previously regulated environment and their current market value in a deregulated one. The use of RRBs allows for an extended recovery period of those costs at an AAA funding rate.

The fee or transition charge is collected by utilities over a specific period of time. Because the state legislature designates the transition charge to be a statutory property right, it can be sold by a utility to an SPV and then securitized. It is the legislative designation of the transition charge as an asset that makes RRBs different from the typical asset securitized.

Transition charges are initially calculated based on projections of utility usage and the ability to collect revenues. However, actual collection experience may differ from initial projections. Because of this, there is a “true up” mechanism in these securitizations. This mechanism permits the utility to recompute the transition charges on a periodic basis over the term of the securitization

based on actual collection experience. The advantage of the true-up mechanism to the bond classes is that it provides cash flow stability as well as a form of credit enhancement.

From 1995 to 2003, there were more than $31B issuances of RRBs (about $45B total since 2012) in over 20 states. The deal size has been between $35M and $3B in the past for the US. RRBs have traded at spreads comparable to AAA-rated credit cards in the US. Figure 7 below is a summary of RRB deals since 2008:



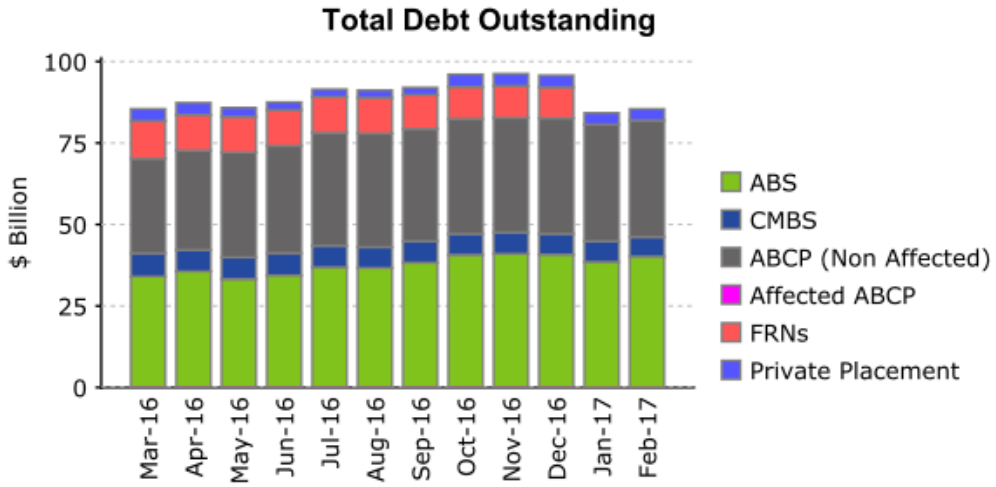
Appendix D contains details of each of the historical RRB issuances from Figure 7 above.

A key difference between RRBs and the proposed debt securities from the GA financing structure is that there is more uncertainty surrounding the GA deferral mechanism.

- RRBs book value and current market value are relatively known at the time of issuance, thus it may be easier to determine the fee that is needed to recuperate the stranded assets from the start.
- The extent of borrowing needed for the GA adjustment is not known ahead of time.
    - However, reasonable estimation and the true-up mechanism can mitigate this issue.
    - Once a history of forecast accuracy and fees collected from ratepayers has been established, there will be more certainty in the amount and timing of cashflows.

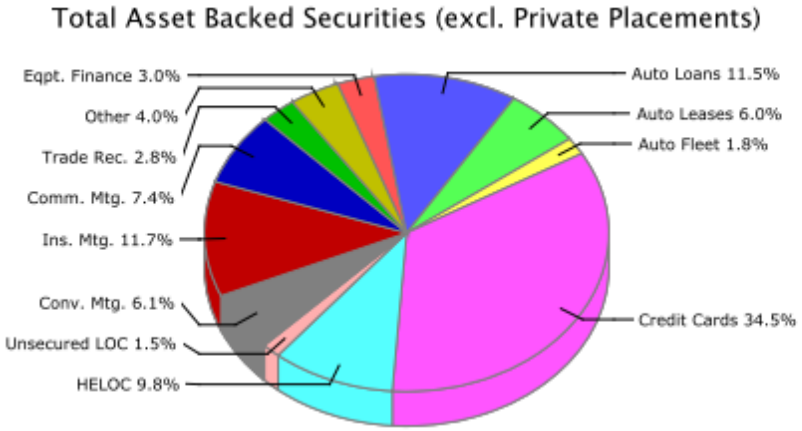
Canadian Securitization Market

The total amount outstanding in the Canadian securitization market ended February 2017 at $85.0 billion. The figures below illustrate the market composition as of February 2017.



Total Asset Backed Securities (excl. Private Placements)

Dealer/Administrator	Outstanding Amount	Market Share
TD Securities Inc.	21,108,826,721	25.8%
RBC Capital Markets Inc.	15,849,571,935	19.3%
BMO Capital Markets	14,880,241,648	18.2%
CIBC World Markets Inc.	9,648,552,341	11.8%
Scotia Capital Inc.	7,732,545,756	9.4%
Other	5,941,339,645	7.3%
National Bank Financial Inc.	4,376,185,678	5.3%
Bank of Nova Scotia (BNS)	1,551,896,531	1.9%
Merrill Lynch Canada Inc.	591,797,636	0.7%
HSBC Securities (Canada) Inc.	92,500,000	0.1%
Canadian Tire Bank	89,698,890	0.1%
National Bank of Canada (NBC)	60,910,750	0.1%
HSBC Bank Canada	4,349,881	0.0%
Total	**$81,928,417,413**	**100.0%**



Asset Classes in Other	Percent
Auto Floorplan	0.65 %
Equipment Floorplan	0.72 %
Auto Rental	0.82 %
Reverse Mtg.	0.73 %
Ins. Premium Loans	0.20 %
Fran. Loans	0.87 %

An issuance of $2.5 billion a year by the SPV (including the "private placement" to the Province) would be approximately 3% of the total Canadian market. There has also been discussion of entrance into the US market.

Credit Enhancement

There are a variety of methods for credit enhancement of securitized assets:

1) Excess spread – The difference between the utility fee cash flows brought in from the regulated asset and the costs of the securitization (financing costs, servicing fees, etc.). If ratepayers are charged 6% and bondholders have an interest at 4%, the excess spread of 2% helps cover if some ratepayers have late payments.
2) Cash reserve account: holding excess cash.
3) Overcollateralization: having the regulatory assets value higher than the issued notes.
4) Subordination
5) Letter of credit from a third party.

SPV Credit rating

Rate reduction bonds minimize costs by qualifying for triple A ratings and accordingly are issued with yields considerably lower than those based on the sponsoring utility's long-term debt rating. In order to be eligible for this level of credit quality, rate reduction bonds must possess certain common structural characteristics.

- First, the bonds must be authorized by specific state enabling legislation entitling the utility to impose and collect usage-based customer charges that are dedicated to payment of the bonds.
- The charges must be non-bypassable; that is, they cannot be eliminated by switching to alternative providers of service.
- The legislation requires the utility to seek and receive an irrevocable financing order from the state utility regulator. The financing order creates a present intangible property right to impose and collect the non-bypassable charge in amounts necessary to service the bonds.
- The legislation and financing order provide for a periodic true-up rate mechanism, by which at least annually, and more frequently in many cases, the special charges are reviewed and adjusted to correct for any under collection, to assure timely payment of the principal and interest on the bonds.
- The legislation also provides for a covenant by the state that until the bonds have been paid, the state will not impair the value of the securitization collateral or, but for the true-up process, reduce, alter or impair the special charges to the utility's customers.

Legislation

- The current draft of the legislation has similar provisions discussed above.
- A Triple AAA rating is likely with the supporting legislation and the proposed credit enhancements of subordination, excess spread, and the true-up mechanism.
    - For RRBs, the difference between market value and book value (i.e., the stranded assets) was relatively known at the time of issuance.

- In this case, the extent of the total borrowing is not known, which may put the credit rating at risk with more uncertain cash flows than the precedent from RRB.

Maintaining a good credit rating for the Province

Maintaining the Province's credit rating is critical to lowering the borrowing costs over the refinancing period. Keeping the SPV consolidated onto OPG's books and minimizing Provincial borrowing are the two critical objectives needed to reduce fiscal impacts and the probability of a rating downgrade.

3. Allowing for the consolidation of the SPV onto OPG's books

The SPV needs to be consolidated onto OPG's balance sheets in order for the rate regulated assets to be recognized under US GAAP. When OPG is consolidated onto the Province's accounts, it will be recognized under the modified equity method under PSAB. The modified equity method has the net asset value of OPG recognized as an equity investment on the province's books, with OPG able to maintain an IFRS accounting framework when calculating the net assets and not conforming to PSAB. If the Province or related government reporting entity that is not a GBE is seen as controlling the SPV, then line-by-line consolidation will occur with potential fiscal impacts from the loss of recognition of the regulatory assets that are not recognized under PSAB.

Appendix F highlights how the Province could indirectly or indirectly fund the SPV while allowing OPG to consolidate the SPV on its books. In general terms, the two main criteria to be satisfied are:

1) **OPG must be seen as controlling the Trust** – the way the legislation is being drafted is to have OPG have full control of the Trust, including controlling the economic performance of the Trust.
2) **OPG must have the majority of the equity tranche in the SPV** – this is because OPG must be exposed to either the majority of expected losses, the majority of expected residual returns, or both, under general accounting consolidation requirements. The equity tranche gets all of the residual returns but is the first to absorb losses – thus satisfying this requirement.

It is important to note that:

- There are no clear rules under PSAB for the consolidation of a special purpose vehicle or special purpose entity.
  - The OPG white paper requirements do not prohibit the Province from directly funding the SPV.
- There are no public sector accounting standards specifically related to a provincial investment in the subsidiary of a government business enterprise.
- There may be the possibility of the Province issuing debt to OPG that is then moved to the SPV, thus giving the Province access to the returns from the SPV without the Province going through OPG.

4-6. Cost Recovery, Profitability, and Fiscal impact

The options for the Province to fund the GA deferral structure are in the continuum of common equity to pure debt:

Common equity to OPG

- Gives OPG the most flexibility in managing the trust and ability to absorb temporary losses.
- Preferred method by OPG.
- Lower chance of a ratings downgrade.
- Return charged to ratepayers, on a weighted average basis, would need to justify the proportion of equity injected into OPG that is ultimately put into the SPV, otherwise could be seen as a subsidy to the Province.
- OPG would be able to, but not obliged to, flow dividends back to the Province that would be used to settle interest/principal costs.
- Issue of "double leverage" – the Province's equity stake in OPG (and ultimately the SPV) is funded by debt.
- There could be no fiscal impact with the profit to OPG from the Trust offsetting the interest on Provincial borrowing.
    - However, on a cash basis, there is no guarantee that OPG would pass the required payments to the Province to settle interest and principal payments – there are timing issues.
    - This could lead to fiscal costs eventually once the Trust is dissolved with OPG potentially hanging on to billions of dollars of cash to use for its own initiatives.

Preferred Equity to OPG

- The suggested method would have cumulative dividends that could be deferred for at least 10 years, payable with cash, and with the preferred shares redeemable after ten years from the time of issuance.
    - Under DBRS rating criteria, would likely get 50% equity treatment (*Appendix E*)
- The deferral of dividends would still give OPG flexibility in managing the trust and the ability to absorb temporary losses.
- Lower chance of a ratings downgrade than using debt.
- Lower return to be charged to ratepayers versus common equity to justify preferred equity funding.
- Allows for the Province to eventually receive payments, with the cumulative dividends compensating the Province for the interest payments on its borrowed portion.
    - The preferred share rate of return would need to be higher than the cost of debt for the Province to be compensating for capitalized interest costs.
- OPG would be obliged to pay back dividends, but could delay this outcome for ten years.
- The fiscal impact risk would be expected to be less than common equity with a reasonably guaranteed flow of cash from OPG to the Province through dividends and redemption.

Debt to OPG

- Gives OPG the least flexibility in managing the trust and ability to absorb temporary losses.
- Highest chance of a ratings downgrade.
- Provides a mechanism for the Province to get timely interest and principal payments back from the Trust.
- Fiscal impact risk is the lowest in terms of receiving principal and interest payments.

Various other options would be between the equity and debt spectrum.

Appendix A. Public Sector Accounting Standards related to Government Business Enterprises

Key sections have been highlighted.

SECTION PS 3070 – Investments in Government Business Enterprises

.03 A government business enterprise is a government organization that has all of the following characteristics:
(i) It is a separate legal entity with the power to contract in its own name and that can sue and be sued;
(ii) It has been delegated the financial and operational authority to carry on a business;
(iii) **It sells goods and services to individuals and organizations outside of the government reporting entity as its principal activity**; and
(iv) **It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity**.

These criteria are explained in GOVERNMENT REPORTING ENTITY, paragraphs PS 1300.29-.31.

Inter-organizational transactions and balances

.29 Inter-organizational transactions and balances are not eliminated under the modified equity method.

.30 Inter-organizational gains and losses are, however, eliminated on assets remaining within the government reporting entity at the financial statement date. As a result, gains or losses related to sales and purchases of services for example, between a government business enterprise and other government organizations would not be eliminated when the government business enterprise is included in government consolidated financial statements by the modified equity method.

.31 For financial assets, such as inventories for resale, that are transferred between a governmental unit and a government business enterprise, unrealized gains or losses may occur. The existence of unrealized losses may indicate a permanent decline in the value of the relevant assets. It may be necessary to recognize this decline by writing down such assets.

.32 Transfers of assets from a governmental unit to a government business enterprise normally result in an increase to the assets and contributed surplus of the government business enterprise. When tangible capital assets are transferred, an unrealized increase in the financial position of the government reporting entity may be created. When tangible capital assets are transferred to a government business enterprise, they are recorded by the government reporting entity as an investment and reported as a financial asset in government consolidated financial statements. Any unrealized gains on tangible capital assets would be eliminated when the government business enterprise is included in government consolidated financial statements on a modified equity basis.

.33 The situation in paragraph PS 3070.32 is analogous to that which arises regarding tangible capital assets when a governmental unit changes in status to be a government business enterprise as described in ADDITIONAL AREAS OF CONSOLIDATION, paragraphs PS 2510.46-.49. The amount of the adjustment to eliminate an unrealized gain arising on the transfer of a tangible capital asset to a government business enterprise in any given period would vary depending on whether the transferred asset is depreciable and, if so, the extent of the depreciation recorded on the asset by the government business enterprise. Any impairment or other adjustment made by a government business enterprise to the recorded value of a tangible capital asset transferred from a governmental unit to the government business enterprise would also affect the amount of the elimination entry.

.34 *The transfer or sale of a tangible capital asset from a governmental unit to a government business enterprise should not improve the net operating results of the period or otherwise improve the net financial position of the government reporting entity*

Inter-organizational bond holdings

.35 From the point of view of the government reporting entity, constructive debt retirement occurs when:

(a) Another government organization purchases the bonds, notes or other debt instruments of a government business enterprise; or

(b) A government business enterprise purchases the bonds, notes or other debt instruments of another government organization, from an organization external to the government reporting entity.

The debt retirement is "constructive" because the debt remains outstanding from the viewpoint of the issuer as a separate legal entity and remains an investment from the point of view of the acquirer as a separate legal entity. As a result of such purchases, a constructive gain or loss, equal to the difference between the carrying value of the debt in the accounts of the issuer and the cost to the acquirer, is recognized in government consolidated financial statements at the date of acquisition. The gain or loss is "constructive" because it is realized and recognized at acquisition from the viewpoint of the government reporting entity, but no gain or loss is recognized at acquisition in the books of the issuing or the acquiring government organization. A constructive gain or loss arises because the acquirer has purchased the debt at a premium or discount and/or the issuer originally issued the debt at a premium or discount.

.36 Neither the carrying values of the inter-organizational bond holdings between a government business enterprise and another government organization, nor the related interest income and expense would be eliminated when the government business enterprise is included in government consolidated financial statements by the modified equity method. However, the amortization of the premium or discount on the books of the acquirer and the amortization of the premium or discount on the books of the issuer would be eliminated. The eliminations would be reflected in the government's investment in a government business enterprise and its income from an investment in a government business enterprise.

.37 Because the debt remains outstanding from the viewpoint of the acquirer and the issuer, they would continue to account for the portion of the debt deemed to be constructively retired, and any related premiums or discounts, and would, therefore, recognize the constructive gain or loss in their own accounts over the period to the maturity or sale of the debt. As the constructive gain or loss was recognized by the government reporting entity in the period the debt was constructively retired, elimination of the gain or loss being recognized by the acquirer and the issuer in each subsequent accounting period through the amortization of any premium or discount related to the debt will be required when the government business enterprise is included in government consolidated financial statements by the modified equity method. In making such eliminations, the government's proportionate ownership of the government business enterprise would need to be taken into account when the government business enterprise is the issuer of the debt.

.38 Regardless of whether the government or a government business enterprise is the acquirer in such a transaction, the government's investment in a government business enterprise and its income from an investment in a government business enterprise would be adjusted to recognize the constructive gain or loss in government consolidated financial statements in the year of the acquisition. In recognizing the gain or loss, the government's proportionate ownership of the government business enterprise would need to be taken into account when the government business enterprise is the issuer of the debt.

WHEN AN ORGANIZATION NO LONGER MEETS THE DEFINITION OF A GOVERNMENT BUSINESS ENTERPRISE

.48 The circumstances affecting a government organization may change so that it no longer meets the definition of a government business enterprise. Failure to meet any of the four characteristics of the government business enterprise definition would require such a change in status of the enterprise.

.49 **When the nature of a government organization changes such that it no longer meets the definition of a government business enterprise, the organization would become a governmental unit and would be consolidated in government financial statements in accordance with BASIC PRINCIPLES OF CONSOLIDATION, Section PS 2500 and ADDITIONAL AREAS OF CONSOLIDATION, Section PS 2510, instead of being accounted for on a modified equity basis. (i.e., line-by-line consolidation)**

.50 When the change in status of a government business enterprise to a governmental unit is the result of an observable event, a government would apply both modified equity and consolidation accounting to the organization in the period, as appropriate. The individual revenues and expenses of the former government business enterprise would be included with those of the other governmental units and recognized in the consolidated statement of operations subsequent to the date the status of the organization changes. Prior to the date of change, only income from an investment in a government business enterprise would be recorded, calculated in accordance with the modified equity method.

.51 When the change in status of a government business enterprise to a governmental unit is not a specific observable event, but occurs over time, a government would account for the organization as a governmental unit for the reporting period in which the change in status occurs.

.52 When an organization ceases to meet the definition of a government business enterprise and that organization applies accounting policies that differ from those of the government reporting entity, the accounting policies of that organization must be conformed to those of the government reporting entity for the purposes of its consolidation in government financial statements. For example, when an acquired government business enterprise changes its status to a governmental unit, any remaining unamortized purchase premium would be written off to consolidated operating results in the period the status changed in accordance with the accounting treatment for purchase premiums required by ADDITIONAL AREAS OF CONSOLIDATION, Section PS 2510.

.53 *In the period that a government organization no longer meets the definition of a government business enterprise, the effect of conforming its accounting policies to those of the government reporting entity for the purposes of consolidation should be included in the determination of consolidated operating results.* [APRIL 2000]

.54 When part of a government business enterprise, such as a division or other discrete component, is sold, but the government still retains control of the organization that remains, that organization is still considered to be part of the government reporting entity. If the part of the organization that remains does not on its own meet the definition of a government business enterprise, it would be consolidated in government financial statements. If the part of the organization that remains continues on its own to meet the definition of a government business enterprise, it would continue to be accounted for on the modified equity basis as a government business enterprise.

.55 **When the circumstances affecting a government organization change so that it no longer meets the definition of a government business enterprise, the change in accounting treatment would not be applied retroactively**. The alteration of an accounting treatment necessitated by events or transactions that reflect a difference in substance from those previously occurring is not considered to be a change in accounting policy 3 or a change in classification. 4 The financial position and results of prior periods would not be adjusted to reflect the change in status of the organization as if it had always been a governmental unit. It is important for government consolidated financial statements to show that a government business enterprise has changed its status to become a governmental unit.

.56 *When the circumstances affecting a government organization change such that it no longer meets the definition of a government business enterprise, the resulting change in accounting treatment, the underlying reasons for the change, and the financial effect of the change should be disclosed.* [APRIL 2000]

.65 Government business enterprises may enter into significant transactions with other government organizations in the government reporting entity. Since the modified equity method of accounting does not eliminate inter-organizational transactions and balances, such as loans and advances, users need supplementary information to identify amounts

owing to or receivable from, and revenues received from or paid to, other government organizations in the government reporting entity.

.66 In addition, because unrealized gains or losses on amounts that remain within the government reporting entity are eliminated, users need information on any adjustments that have been made to the reported net assets and net income of the government business enterprise. Furthermore, users need information on any contractual obligations and contingencies of government business enterprises to understand and assess the future revenue requirements of the government reporting entity.

.67 One result of accounting for a government business enterprise by the modified equity method is that the outstanding debt issued by a government business enterprise is not included in the debt reported by the government reporting entity on its consolidated statement of financial position. Disclosure in government consolidated financial statements of the nature and terms of any government guarantees relating to debt issued by a government business enterprise would serve to highlight a government's contingent exposure to and responsibility for any debt of government business enterprises arising as a result of specific guarantees.

.68 When the nature of the business of a government business enterprise is not self-explanatory, governments are also encouraged to disclose by enterprise, or category of enterprise where appropriate, the nature of the business in which the enterprise(s) are engaged

SECTION PS 1300 – Government Reporting Entity

.27 *Government financial statements should consolidate the financial statements of governmental units comprising the government reporting entity.* 2 [Former paragraph PS 1300.27 retained in Archived Pronouncements.] [JUNE 1996 *]

Defining a government business enterprise

.28 A government business enterprise is an organization that has all of the following characteristics:

(a) It is a separate legal entity with the power to contract in its own name and that can sue and be sued;

(b) It has been delegated the financial and operational authority to carry on a business;

(c) It sells goods and services to individuals and organizations outside of the government reporting entity as its principal activity; and

(d) It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity

.29 Selling goods and services involves a direct exchange relationship between the revenues and the goods and services provided. Selling prices are related to the quantity and quality of goods or services sold, and not just to the recovery of administrative costs. Imposed fees and penalties, such

as licenses and fines, do not represent sales of goods and services. Insurance premiums charged by a government organization are a sale of a service and not an imposed fee.

.30 A government business enterprise should, in the normal course of its operations, be able to maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity. These revenues include not only amounts from the sale of goods and services, but also transfers received from other governments or sources outside of the government reporting entity.

.31 When determining if an organization can maintain its operations and meet its liabilities with revenues received from outside of the government reporting entity, the following factors should be considered:

(a) The organization's history of maintaining its operations and meeting its liabilities;

(b) Whether the organization would continue to maintain its operations and meet its liabilities without relying on sales to, or subsidies in cash or kind from, the government reporting entity;

(c) Past, present and future economic conditions within which the organization operates; and

(d) Whether the organization has realistic and specific plans that show how it expects to be able to maintain its operations and meet its liabilities in the future.

Accounting for a government business enterprise

.32 A government business enterprise differs from other government organizations in its relationship to the government, and its objectives, and operations. A government enterprise represents a financial asset of the government and given its autonomy, business-oriented objectives, and financial self-sufficiency, equity accounting is appropriate.

.33 Accounting for a government business enterprise by the equity method avoids commingling the independently-managed business enterprise's budget and actual results with those of other government organizations on a line-by-line basis. It also avoids including the business enterprise's gross debt with that of other government organizations as the business enterprise is expected to repay that debt from its own revenues.

.34 Because a government enterprise carries on a business, its financial statements should be prepared on the same basis as a private sector business. This basis is most appropriate for measuring the government's investment in the organization and the impact it has on the government's financial position and results. As such, the modified equity method is the most suitable form of equity accounting.

.35 Government business enterprises should be accounted for by the modified equity method. [JUNE 1996]

.36 Accounting for government business enterprises by the modified equity method is outlined in INVESTMENTS IN GOVERNMENT BUSINESS ENTERPRISES, Section PS 3070.

SECTION PS 3230 – Long-term Debt

.09 If a government charges little or no interest to the government business enterprise for the use of debt proceeds, the difference between the interest cost to the government and the interest charged to the government business enterprise is in the nature of a subsidy. Such circumstances would be taken into account in assessing if the organization continues to meet the financial self-sustainability requirement inherent in the definition of a government business enterprise in GOVERNMENT REPORTING ENTITY, Section PS 1300.

.10 ***When there is sufficient evidence that debt has been issued by a government specifically on behalf of a government business enterprise:***

(a) The debt issued on behalf of the government business enterprise and the related receivable from the government business enterprise should be presented on a net basis in the consolidated statement of financial position; and

(b) The interest expense on the debt issued on behalf of the government business enterprise and the related interest revenue from the government business enterprise should be presented on a net basis in the consolidated statement of operations. **[APRIL 2000]**

Appendix B – OPG Global Adjustment White Paper Conditions

A. Ability to Recognize an Asset and Record Revenue

Accounting Requirements under International Financial Reporting Standards (IFRS)

1) It is our understanding that the IESO and KPMG have concluded that the sale of this 'right to collect' future revenue (or regulatory asset) is not a financing transaction and will not be recorded as a financial liability. Based on that conclusion, the right to collect will be accounted for as an intangible asset in the SPV.

2) In order to the SPV to record this right as an intangible asset, the right must meet the following conditions:

- The intangible asset must be separable and arise from a contractual or legal right (i.e. mandated by the Legislation and SPV Indenture Agreement).
- The SPV must have the control and power to obtain future economic benefits from the intangible asset.
- The SPV must be able to demonstrate that the intangible asset is purchased at fair value.

3) In order for the SPV to recognize appropriate revenue to offset any ongoing costs, the **Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis**. **This may result in additional amounts to be deferred to achieve the desired customer impact**. Payment of revenue to the SPV is also important to service the interest expenses of the debt.

B. Ability to Consolidate the SPV into OPG under IFRS

OPG 'Control' of the SPV - Accounting Requirements

1) In order to meet the accounting definition of 'control', accounting guidance must be considered. There are no bright lines to determine whether OPG has exposure, or rights, to variable returns from its involvement with the SPV, or whether it has the ability to affect the returns of the SPV through its power over the SPV. Rather, all facts and circumstances are considered when assessing whether an entity has control over another entity. Based on the relevant accounting guidance under IFRS, OPG has proposed terms necessary to demonstrate that OPG has control over the SPV. OPG's external auditors, Ernst & Young, has provided their concurrence that based on the information provided to them to date that the following conditions should permit consolidation of the SPV by OPG.

Directive:

1. **The SPV must be undertaken by OPG as a business initiative on its merits**. A Shareholder Directive is to be limited to direct OPG to investigate the option of establishing a SPV vehicle to administer, finance and operate the Global Adjustment plan. The control, risk and rewards of that SPV will determine its consolidation into OPG as a business enterprise.

SPV:

2. **The SPV should not operate in a predetermined way such that OPG does not have decision-making authority over the SPV's ongoing activities after its formation** (i.e. should not operate on 'autopilot').

3. **OPG must have the ability to appoint and remove the Trustee (or Board of Trustees), with no veto right by the Province. No party shall have the ability to remove OPG from its role and authority in the SPV.**

4. The Province cannot have the right to veto OPG's decisions about the relevant activities of the SPV. **OPG must have the power over the relevant activities of the SPV and be compensated**. The relevant activities of the SPV include (but are not limited to) the evaluation and decisions on financing alternatives, duration, and the strategy to minimize financing costs. **OPG must have the power to establish operating and capital budgets of the SPV.**

5. OPG must have the power to determine or change operating and financing policies of the SPV, which will affect the variability of risks and returns.

6**. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of** the following:

- **The SPV**
- **Any of OPG's investments in the most subordinated debt of the Trust**

7. OPG must own greater than 50% of the most subordinated debt and targeted to be no less than 5%[2] of the total debt of the SPV. **Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources**. A quantitative analysis should be performed at a later date to corroborate the **appropriateness of the 5% threshold to support that the 5% subordinated debt investment is sufficient to absorb most of the expected variability in the SPV.**

8. OPG must have the ability to earn variable returns by exercising its authority, which shall be accomplished as follows:

a. The cash flow from the restructured asset shall include interest determined based on a relevant benchmark that is appropriate relative to the restructured asset, plus an appropriate margin consistent with the relevant market and other risks

b. OPG shall have the authority to determine the financing strategy, which will vary the financing costs with the objective of enabling the SPV to achieve a more favourable return compared to the return from the restructured asset

c. The SPV shall establish classes of liabilities (senior, subordinated and the most subordinated). The classes would allow the SPV to delineate financing of lower risk investment and investment that would bear higher residual risk. The delineation would

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[2] *While the rest of the letter refers to a 10% investment in the most junior subordinated debt with OPG owning 5%, it should be noted that OPG should own more than 50% of the most subordinate debt. For simplicity, the degree to which OPG's ownership beyond 50% is not shown in this letter.*

limit OPG's self-funded investment to a reasonable level in order to allow OPG to remain a self-sustaining entity.

d. OPG shall, through its ownership of the most subordinated liability, be able to capture and retain the pricing difference between cost of financing and benchmark for interest on the restructured asset, or any residual risk of restructured asset. The targeted return of the subordinated liability should be reflective of the underlying risks and compensate holders for active management that would be required.

e. OPG should participate in the detailed design of the above and the SPV documentation to ensure that it has substantive power and variability, which will allow OPG's Board of Directors to evaluate the opportunity as a business initiative instead of through a shareholder directive.

Notwithstanding the above, under certain Defined Forced Majeure for emergency events (e.g. unlikely credit market event or disruption where it is not possible to borrow from the market at a reasonable rate), the OEFC may provide bridge financing beyond the designated percentage for a defined period. The relevant terms should ensure that this temporary measure does not detract from the rights of OPG to direct all of the relevant activities of the SPV. Additionally, OPG should not be protected from risk of loss by the OEFC with respect to its subordinated investment, nor should it lose its right to derive the residual returns should such bridge financing be required.

Legislation

9. **The Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis, so that the SPV is able to recognize appropriate revenue to offset any ongoing costs.**

10. The Legislation must dictate the manner in which the restructured asset would be determined, collected, and the period of collection, so that the determination of the restructured asset will not be subject to the Province's decisions on an ongoing basis, but determined based on a formula. Alternatively, the Legislation may allow for an adjustment to the pre-determined deferral formula based on specific parameters that would limit the adjustment to the restructured asset. Adjustments beyond the specific parameters would require approval by the Board of Trustees.

11. The Legislation must be written to avoid legal or constitutional challenges and be irrevocable to reduce the cost of borrowing and with a specific formula which determines the deferral amount. As irrevocability would be difficult under Canadian law one mitigation would be to provide a Provincial guarantee which only applies with cancellation or amendment of the legislation.

12. The spirit of the above terms should be reflected in the SPV Indenture Agreement as well as Legislation, wherever possible.

2) The Trust is expected to be financed as follows:

- 51% senior secured debt from external markets
- 39% senior subordinated debt from OPG (via Province equity injection into OPG)
- 10% junior subordinated debt from OPG (5% from external markets and 5% from Province equity injection into OPG).

When assessing control, an investor shall consider the nature of its relationship with other parties and whether those parties are acting on the investor's behalf (i.e. they are 'de facto agents'). If OPG is assessed to be a 'de facto agent' of the Province, it will compromise the ability for OPG to consolidate the Trust. The split above is to meet the following conditions to ensure that OPG is not considered a 'de facto agent' of the Province:

- The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    - The Trust
    - Any of OPG's investments in the most subordinated debt of the Trust
- OPG must own greater than 50% of the most subordinated debt and targeted to own no less than 5% of the total debt of the Trust. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources.

3) The Province will need to conclude on whether OPG still meets the definition of a Government Business Enterprise as defined under Public Sector Accounting Board standards in order to obtain the preferred consolidation treatment after the transaction. We also recommend that the Province to undertake the analysis deemed necessary to confirm the accounting treatment in its consolidated Public Accounts, **including if the recognition of the intangible asset would result in an offsetting liability in the Public Accounts.**

Appendix C – Cabinet Submission Reference to SPV and GBE

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations.
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage the exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.

Appendix D – RRB Historical Issuances

ESOT DEF 2016-A ($1,294m) Duke Energy Florida IncRBC, GUG Jun 15, 2016

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A2018	183	2	Aaa	AAA	AAA	-	-	-	Fixed	Tsy	-	-	1.20%	1.20%	99.999
A2021	150	5	Aaa	AAA	AAA	-	-	-	Fixed	Tsy	-	-	1.73%	1.73%	99.998
A2026	436	10	Aaa	AAA	AAA	-	-	-	Fixed	Tsy	-	-	2.54%	2.54%	99.996
A2032	250	15.2	Aaa	AAA	AAA	-	-	-	Fixed	Tsy	-	-	2.86%	2.86%	99.995
A2035	275.29	18.7	Aaa	AAA	AAA	-	-	-	Fixed	Tsy	-	-	3.11%	3.11%	99.994

ESOT ENOI 2015-1 ($99m) Entergy CorporationCTI Jul 14, 2015

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A	98.73	4.97	Aa1	AAA	-	-	-	-	Fixed	Swaps	-	90	-	2.67%	99.9756

ESOT HGEMS 2014-A ($150m) State of HawaiiGSC Nov 4, 2014

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	50	3.05	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	30	1.47%	1.47%	-
A2	100	10.21	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	75	3.24%	3.24%	-

ESOT LCDA 2014-ELL ($244m) Louisiana Local Government Environmental Facilities and Community Development AuthorityCTI Jul 29, 2014

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A	91.7	3	Aaa	AAA	-	-	-	-	Fixed	Swaps	-	51	1.66%	1.67%	-
B	152.15	8.91	Aaa	AAA	-	-	-	-	Fixed	Swaps	-	77	3.24%	3.24%	-

ESOT LCDA 2014-EGSL ($71m) Louisiana Local Government Environmental Facilities and Community Development AuthorityCTI Jul 29, 2014

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
-	71	6.73	Aaa	AAA	-	-	-	-	Fixed	Swaps	-	70	2.86%	2.86%	-

ESOT CMS 2014-A ($378m) Consumers Energy CompanyCTI, GSC Jul 14, 2014

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A	123.4	3	Aaa	AAA	-	-	-	-	Fixed	Swaps	30a	27	1.33%	1.33%	-
A2	139.4	8	Aaa	AAA	-	-	-	-	Fixed	Swaps	65a	57	2.96%	2.96%	-
A3	115.2	12.26	Aaa	AAA	-	-	-	-	Fixed	Swaps	75a	70	3.53%	3.53%	-

ESOT UDSA 2013-T ($483m) Long Island Power AuthorityMOS, GSC Dec 12, 2013

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
T1	100	4.91	Aaa	AAA	AAA	-	-	-	Fixed	-	-	50	2.04%	2.04%	99.999
T2	100	5.92	Aaa	AAA	AAA	-	-	-	Fixed	-	-	63	2.55%	2.55%	99.995
T3	100	6.79	Aaa	AAA	AAA	-	-	-	Fixed	-	-	73	2.94%	2.93%	99.997
T4	182.93	8.77	Aaa	AAA	AAA	-	-	-	Fixed	-	-	75	3.44%	3.43%	99.994

ESOT AEPWV 2013-1 ($380m) Appalachian Power CompanyMOS, RBS Nov 6, 2013

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	215.8	5	Aaa	AAA	-	-	-	-	Fixed	-	-	54	-	-	-
A2	164.5	12.24	Aaa	AAA	-	-	-	-	Fixed	-	-	70	-	-	-

ESOT AEPOH 2013-1 ($267m) Ohio Power CoCTI, RBS Jul 23, 2013

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	164.9	2.25	Aaa	AAA	-	-	-	-	Fixed	Swaps	-	40	0.96%	0.96%	99.9988
A2	102.51	5.08	Aaa	AAA	-	-	-	-	Fixed	Swaps	-	52	2.05%	2.05%	99.9987

ESOT FEOH 2013-1 ($890m) FirstEnergy OhioCTI, CAG, GSC Jun 12, 2013

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	111.83	1.6	-	-	-	-	-	-	Fixed	EDSF	-	25	0.68%	0.68%	99.9999
A1	111.97		Aaa	AAA	AAA	-	-	-	Fixed	EDSF	-	25	0.68%	0.68%	99.9999
A2	70.31	5.07	-	-	-	-	-	-	Fixed	Swaps	-	40	1.73%	1.73%	99.9954
A2	70.47		Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	40	1.73%	1.73%	99.9954
A3	262.56	13.69	-	-	-	-	-	-	Fixed	Swaps	-	70	3.45%	3.45%	99.9979
A3	262.48		Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	70	3.45%	3.45%	99.9979

ESOT AEPTC 2012-1 ($800m) Appalachian Power CompanyMOS, CTI Mar 7, 2012

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	307.3	3	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	20	0.88%	0.88%	99.9997
A2	179.4	7	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	40	1.98%	1.98%	99.9997
A3	313.3	10.76	Aaa	AAA	AAA	-	-	-	Fixed	-	-	70	2.84%	2.84%	99.9995

ESOT CNP 2012-1 ($1,695m) CenterPoint Energy Houston Electric LLCCTI, MOS Jan 11, 2012

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	606.22	3	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	18	0.90%	0.90%	99.9999
A2	407.52	7	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	55	2.16%	2.16%	99.9998
A3	681.26	10.81	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	90	3.02%	3.03%	99.9993

ESOT ELL 2011-A ($207m) Entergy CorporationMOS Sep 15, 2011

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	207.16	5.38	Aaa	AAA	AAA	-	-	-	Fixed	-	-	75	2.04%	2.04%	99.9835

ESOT EAI 2010-A ($124m) Entergy CorporationMOS Aug 11, 2010

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	124.1	5.45	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	55	2.30%	2.31%	99.9712

ESOT EGSL 2010-1 ($713m) Entergy CorporationCTI Jul 15, 2010

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	97	3	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	30	1.52%	1.53%	99.9794
A1	112	2	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	25	1.11%	1.12%	99.9849
A2	60	7	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	70	3.22%	3.22%	99.973
A2	111	5	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	50	2.47%	2.47%	99.97
A3	87.1	10.4	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	95	3.99%	4.00%	99.883
A3	121	8	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	73	3.45%	3.45%	99.9621
A4	124.9	10.9	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	85	3.96%	3.96%	99.9507

ESOT CNP 2009-1 ($665m) CenterPoint Energy Houston Electric LLCGSC Nov 18, 2009

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	224.79	3	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	20	1.83%	1.83%	99.9973
A2	160.15	7	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	45	3.46%	3.46%	99.9907
A3	279.92	10.82	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	70	4.24%	4.24%	99.9841

ESOT ETRF 2009-1 ($546m) Entergy CorporationMOS Oct 30, 2009

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	182.5	3	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	20	2.12%	2.12%	99.9933
A2	144.8	7	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	40	3.65%	3.65%	99.9704
A3	218.6	10.87	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	65	4.39%	4.38%	99.9249

ESOT EGSL 2008-A ($278m) Entergy CorporationCTI Aug 21, 2008

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	103	2.66	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	145	4.95%	4.95%	99.9458
A2	90	6.24	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	170	5.88%	5.88%	99.9396
A3	85.4	8.97	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	210	6.55%	6.54%	99.9728

ESOT EGSL 2008-A ($688m) Entergy CorporationCTI Jul 22, 2008

ESOT CLECO 2008-1 ($181m) Cleco Corporate Holdings LLCCSG Feb 28, 2008

Class	$(M)	WAL	MO	SP	FI	DR	KR	MS	FX/FL	BNCH	GDNC	SPRD	CPN	YLD	Price
A1	113	5	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	80	4.41%	4.41%	99.9379
A2	67.6	10.58	Aaa	AAA	AAA	-	-	-	Fixed	Swaps	-	115	4.41%	4.41%	99.9379

Appendix E – Key Aspects of DBRS Credit Rating Methodology

DBRS Limited (DBRS) has today confirmed the Issuer Rating and the Unsecured Debt rating of Ontario Power Generation Inc. (OPG or the Company) at A(low) as well as its Commercial Paper rating at R-1 (low). All trends are Stable. OPG's ratings continue to be supported by (1) the reasonable regulatory regime in place for the Company's generation facilities, (2) continuing financial support from its shareholder, the Province of Ontario (rated AA (low), Stable, by DBRS) and (3) strong cash flow-to-debt and debt-to-capital ratios.

http://www.dbrs.com/research/308279/dbrs-confirms-ontario-power-generation-inc-at-a-low-r-1-low-stable-trends.html

DBRS Criteria: Preferred Share and Hybrid Security Criteria for Corporate Issuers DBRS.COM 6

Hybrid Features	25%	50%	75%	100%
Subordination	Required – to ALL debt types	Required - to ALL debt types	Required - to ALL debt types	Required – to ALL debt types
Assumed Remaining Term to Maturity (as determined by DBRS)	> Five years	> Ten years	> 50 years	> 100 years
Interest Deferral	Optional; Cumulative for up to five years; Payable with cash	Optional; Cumulative for up to ten years; Payable with cash	Optional; Non-cumulative or cumulative and payable with equity	Mandatory; Non-cumulative or cumulative and payable with equity
Redemption Rights without Make-Whole and Replacement Language	Acceptable	Acceptable	Acceptable	**Not acceptable while senior debt is outstanding**
Tax- and Rating Agency Event-Based Redemption Rights with no Make-Whole	Acceptable	Acceptable	**Not Acceptable**	**Not Acceptable**

CASH FLOW-TO-DEBT = CASH FLOW FROM OPERATIONS / TOTAL DEBT

Cash flow from operations = core net income + depreciation + amortization + deferred taxes + other non-cash items from income statement (before changes in non-cash working capital items).

Total debt = short-term debt + long-term debt + hybrid debt portion + capital leases.

Gross interest expense = all interest expense + debt hybrid interest expenses + capitalized interest (excludes any International Financial Reporting Standards (IFRS) adjustments).

DEBT-TO-CAPITAL = TOTAL DEBT / TOTAL CAPITAL

Total capital = total debt + total preferred equity + total common equity + minority interest + capital leases.

EBIT-TO-INTEREST = EBIT / GROSS INTEREST EXPENSE

EBIT = revenue – cost of goods sold – selling, general and administrative expenses – depreciation – amortization.

Gross interest expense = all interest expense + debt hybrid interest expenses + capitalized interest (excludes any IFRS adjustments).

- To determine the BRA for regulation (see page 6), DBRS reviews the eight considerations found below, which assess the regulatory framework in which the utility conducts its business.
- The ranking of the factors is based on a five-point scale (excellent, good, satisfactory, below average and poor).
- The first four factors are generally of greater importance than the others when assessing regulatory risk; however, the factors are not given a specific weighting when assessing the regulatory framework.

Consideration 1: Deemed Equity Ratio

Definition

The deemed equity ratio is the percentage of equity investment in the rate base on which a utility could earn a return. In general, the higher the deemed equity ratio, the higher the earnings for a utility.

Score	Item	Definition
Excellent	50.00%+	• The deemed equity ratio represents 50.00% or more of the utility's rate base. • The treatment of the deemed equity ratio is consistent historically.
Good	45.00% to 49.99%	• The deemed equity ratio represents 45.00% to 49.99% of the utility's capital structure. • The treatment of the deemed equity ratio is consistent historically.
Satisfactory	40.00% to 44.99%	• The deemed equity ratio represents 40.00% to 44.99% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.
Below Average	35.00% to 39.99%	• The deemed equity ratio represents 35.00% to 39.99% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.
Poor	Below 34.99%	• The deemed equity ratio represents less than 34.99% of the utility's capital structure. • The treatment of the deemed equity ratio has not been consistent historically.

Consideration 2: Allowed ROE

Definition

Allowed ROE is a measurement of returns on the deemed equity portion of the rate base. The regulator assesses and sets an allowed ROE based on a utility's business risk level. These allowed ROE levels assume a current North American or Western European inflationary environment.

Score	Item	Definition
Excellent	10%+	• An allowed ROE is set at 10.00% or higher. • The regulatory treatment of allowed ROE has been consistent historically.
Good	9.00% to 10.00%	• An allowed ROE is set at 9.00% to 10.00%. • The regulatory treatment of allowed ROE has been consistent historically.
Satisfactory	8.00% to 8.99%	• An allowed ROE is set at 8.00% to 8.99%. • The regulatory treatment of allowed ROE has been consistent historically.
Below Average	7.00% to 7.99%	• An allowed ROE is set at 7.00% to 7.99%. • The regulatory treatment of allowed ROE has not been consistent historically.
Poor	Below 7.00%	• An allowed ROE is set at below 7.00%. • The regulatory treatment of allowed ROE has not been consistent historically.

Consideration 3: Energy Cost Recovery

Definition

Fuel and purchased energy cost (F&PE) recovery certainty and the timing of recovery are critical in DBRS's assessment of a regulatory system within a certain jurisdiction. DBRS looks at the following factors: (1) whether F&PE costs are fully passed through to the customers, (2) how often a utility is allowed to adjust the F&PE costs in retail rates charged to customers and (3) if there is a mechanism within a jurisdiction to allow utilities to make F&PE cost adjustments with no or minimal regulatory review. In addition, DBRS also focuses on the generation mix within a certain market. A high power cost market could have an impact on the utility's ability to recover the purchased power costs in a timely manner. DBRS notes that this factor is not applicable for water and waste-water utilities.

Score	Item	Definition
Excellent	Monthly/bimonthly	• F&PE costs are fully passed through. • Adjustment is made on a monthly basis. • There is an automatic adjustment mechanism. • The jurisdiction is in a favourable generation mix market, resulting in low power cost.
Good	Quarterly	• F&PE costs are fully passed through. • Adjustment is made on a quarterly basis. • There is an automatic adjustment mechanism. • The jurisdiction is in a favourable generation mix market, resulting in low power cost.
Satisfactory	Quarterly with regulatory review	• F&PE costs are fully passed through. • Adjustment is made on a quarterly basis. • F&PE cost deferrals are subject to some regulatory review. • The jurisdiction is in a good generation mix market.
Below Average	Annually with automatic adjustment	• F&PE costs are fully passed through or utilities have minimal exposure to energy price volatility. • Adjustment is made on an annual basis and is subject to minimal or some regulatory review. • The jurisdiction is in an above-average power cost market.
Poor	Annually with no automatic adjustment mechanism	• F&PE costs are fully passed through or utilities have minimal exposure to energy price volatility. • Adjustment is made on an annual basis. • F&PE cost deferrals are subject to regulatory review. • The jurisdiction is in an above-average power cost market.

Consideration 4: Capital and Operating Cost Recoveries

Definition

In assessing CCR and OCR, DBRS focuses on the likelihood of a utility's capex being added to its rate base, along with the timing of such an addition. In addition, DBRS focuses on cost-inflation adjustments that could affect the timing of the OCR. In particular, DBRS looks at the following factors: (1) the utilization of future test periods for rate decisions, (2) whether the spending is allowed to be added to the rate base during the construction or will only be added when the project is completed, (3) the level of upfront capital spending required without regulatory approval, (4) the degree of regulatory lag and uncertainty with respect to the CCR and (5) whether or not there is a reasonable mechanism to deal with cost overruns.

Score	Item	Definition
Excellent	Minimal CCR and OCR lag risk	• Work-in-progress costs can be added to the rate base if capex is significant. • Interim base-rate increases have been frequently authorized. • Future test periods are fully incorporated for rate-case decisions. • Rate cases are typically decided well within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns.
Good	Reasonable CCR and OCR lag risk	• Capital costs are added to the rate base after completion of work. • Interim base-rate increases have been authorized from time to time. • Future test periods are at least partially incorporated for rate-case decisions. • Rate cases are typically decided within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns.
Satisfactory	Modestly elevated CCR and OCR lag risk	• Capex is generally pre-approved by the regulator, but there is some modest upfront capital spending before regulatory approval. • Interim base-rate increases have been rarely authorized. • Historical test periods are commonly incorporated for rate-case decisions. • Rate cases are typically decided within one year unless the rate cases are litigated or unusual circumstances occur. • There is a reasonable mechanism to deal with cost overruns.
Below Average	Below-average CCR and OCR lag risk	• There is significant upfront capital spending before regulatory approval. • Interim base-rate increases have been rarely authorized. • Historical test periods are commonly incorporated for rate-case decisions. • Rate-case decisions typically take more than one year because of frequent court cases and other circumstances. • There are some mechanisms to deal with cost overruns.
Poor	Significant CCR and OCR lag risk	• Capex is generally not pre-approved by the regulator. • Capital costs are added to the rate base after completion of work. • Utilities face significant regulatory lag risk with respect to the CCR and the OCR. • There is no meaningful mechanism to deal with cost overruns.

Consideration 5: COS versus IRM

Definition

In general, under COS, regulated utilities are allowed to recover prudently incurred operating costs and earn a reasonable return on their investment. Under IRM, revenue requirements for the year are based on a COS base year, adjusted for inflation (using the consumer price index (CPI)) and subtracted a productivity factor, which is set by the regulator. This forces utilities to maintain their operational efficiency to achieve allowed ROE. DBRS views COS as lower risk than IRM. In addition, DBRS also considers the length of an IRM period between COS years. DBRS's scoring system gives a higher score for a shorter IRM period.

Score	Item	Definition
Excellent	COS	• The COS regime allows utilities to recover prudently and reasonably incurred operating costs.
Good	IRM (three years or shorter)	• The IRM regime is a maximum of three years between COS years. • For an IRM period of more than three years, there are reasonable mechanisms in place to mitigate unexpected capital investment and operating costs. In addition, key IRM assumptions, including CPI and productivity factors, are reasonable.
Satisfactory	IRM (four- to five-year framework)	• The IRM period is four to five years.
Below Average	IRM (six- to ten-year framework)	• The IRM period is six to ten years.
Poor	IRM (ten-plus years)	• The IRM period is over ten years.

Consideration 6: Political Interference

Definition

Political interference refers to political risk that could occur within a jurisdiction. Political interference could be in the following forms: (1) influence on the regulator's ability to independently and impartially arrive at a decision, (2) passing legislation to override a decision made by the regulator and (3) the regulator being elected instead of being appointed.

Score	Definition
Excellent	• There is no government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed.
Good	• There is a low degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed.
Satisfactory	• There is a low degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed or elected.
Below Average	• There is a modest degree of government influence on the regulatory decision-making process. • There has been no adverse legislation in the regulated utility sector. • The regulator is appointed or elected.
Poor	• There is a high degree of government influence on the regulatory decision-making process. • There has been some adverse legislation in the regulated utility sector. • The regulator is appointed or elected.

Consideration 7: Stranded Cost Recovery

Definition

Stranded costs occur when a utility has already incurred costs (F&PE, operating cost or capital spending) and faces uncertainty as to when it can recover these costs. In some cases, stranded costs are written off if it is certain that these costs cannot be recovered. DBRS looks at the following factors: (1) whether stranded costs exist and their magnitude, (2) the likelihood of recovering stranded costs, (3) the frequency and materiality of writedowns and (4) the time it takes to recover these costs.

Score	Item	Definition
Excellent	No stranded cost	• No stranded costs associated with legitimate or reasonable costs incurred by utilities.
Good	Full recovery	• Some stranded costs exist. • Stranded costs are fully recovered in a timely manner. • No historical stranded cost writedowns.
Satisfactory	Occasional writedowns	• Some stranded costs exist. • Stranded costs are recovered but subject to some regulatory lag. • Occasional writedowns.
Below Average	Frequent writedowns	• Some stranded costs exist. • Stranded costs are sometimes recovered. • Frequent writedowns. • Takes considerable time to recover costs.
Poor	Frequent significant writedowns	• Significant stranded costs exist. • Stranded costs are not fully recovered. • Significant writedowns occur. • Significant regulatory lag associated with the recovery.

Consideration 8: Rate Freeze

Definition

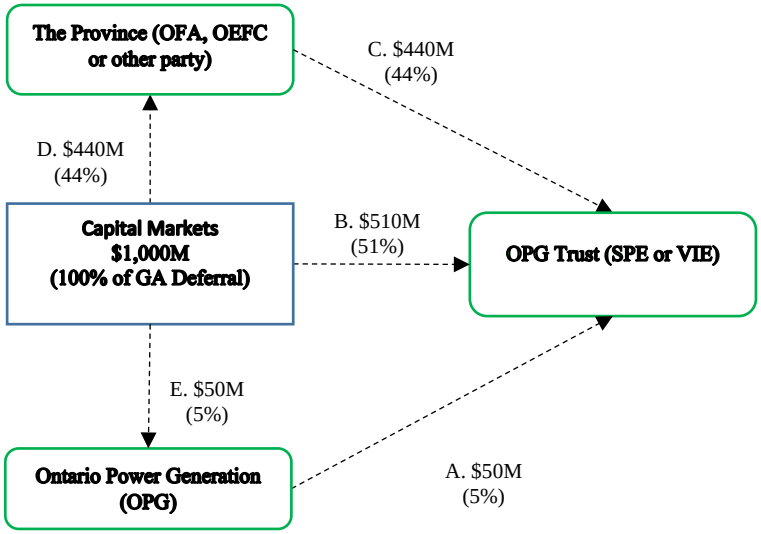
A rate freeze refers to a fixed retail rate that is charged to customers during a period of time (more than two years). During the rate-freeze period, utilities are exposed to increases in operating and energy costs. The longer the rate-freeze period or the more frequency with which a rate freeze occurs within a jurisdiction, the riskier it is for the utility.

Score	Item	Definition
Excellent	Never	• Rates are never frozen.
Good	Potential	• Rates have the potential to be frozen.
Satisfactory	Occasional	• Rates are occasionally frozen. • The frozen period is fewer than three years.
Below Average	Frequently	• Rates are frequently frozen. • The frozen period is fewer than three years.
Poor	Rate freeze	• Rates are currently frozen. • The frozen period is three years and longer.

Appendix F. GA Deferral Structure – Accounting Considerations for Consolidation of SPV

Assumptions: Year #1 – GA Deferral of $1B
Rate Charged to ratepayers – 5%
Interest Collected Year 1 - $50M*
Tranche A – 4.0%, $20.4M annually
Tranche B – 5.5%, $24.2M annually
Tranche C - 10.8%, $5.4M annually (the **residual return**)
**Assume straight interest for simplicity, 5% x $1B = $50M*

Scenario



Under US GAAP (OPG's Perspective)

- The relevant standard is FASB ASC Topic 810 [*Consolidation*]
- An SPE is an enterprise created to accommodate specific needs of the sponsoring entity.
- A SPE is classified as a VIE if
  - **Total equity at risk is insufficient to finance activities without financial support from other parties, or**
  - Equity investors lack any one of the following:
    - The ability to make decisions
    - The obligation to absorb losses
    - **The right to receive returns**
- The **primary beneficiary** of a VIE must consolidate it as its subsidiary **regardless of how much of an equity investment it has in the VIE**.
- The primary beneficiary (**usually the sponsor**, **which in this case is OPG)** is the entity that is expected to **absorb the majority of the VIE's expected losses**, receives the **majority of the VIE's residual returns,** or both.
- The primary beneficiary has the **power to direct the activities of the VIE that most significantly impact the entity's economic performance**.
- If one entity will absorb the majority of the VIE's expected losses and another unrelated entity will receive a majority of the VIE's expected residual returns, the entity absorbing a majority of the losses must consolidate the VIE.
- The SPE borrowing from the debt market acquires or constructs an asset – the asset may be acquired from the sponsoring company (i.e., OPG) or from an outside source (e.g., IESO).
- Under US GAAP, with the Province indirectly or directly financing the SPV, since OPG will absorb the majority of the **expected** losses from the equity tranche, will receive the **majority** of the **residual returns**, and will have the **power to direct activities of the VIE**, it would likely be considered the primary beneficiary and would consolidate the VIE.

Setting up the Trust (in no particular order)
A. OPG Trust, the Special Purpose Entity (SPE) under IFRS and Variable Interest Entity (VIE) under US GAAP, receives 5% of the GA Deferral to fund the purchase of the IESO's regulatory asset. This 5% represents the junior "equity" tranche ("Tranche C").
B. The SPE funds 51% **(or more)** of the GA deferral by issuing **debt securities** to the capital markets. This forms the senior tranche ("Tranche A").
C. The SPE funds 44% (**or less**) of the GA deferral by issuing **debt securities** to the Province. This could form part of Tranche A or a more subordinated debt ("Tranche B") that is higher than Tranche C. The alternative option is from Figure 1.
D. The Province uses general borrowing to finance the 44% of the GA deferral given to the SPV as **debt**. Or given to OPG → SPV.
E. OPG borrows the 5% (**minimum**) from the capital markets directly (minimum based on white paper).

Under PSAB (Province's Perspective for the SPV)

- OPG already receives all its financing from the Province through standard debt issuances, credit facilities, and non-recourse project financing.
- The white paper states that the Province cannot "indirectly or directly" fund the SPV through debt or equity.
- Arguably, the Province investing directly into the SPV (with debt not equity) rather than OPG directly is more arm's length, with the Province securing a better chance of return than with equity injections.
  - A lower interest rate can be secured due to the securitization of the regulatory asset (or intangible asset once purchased) – as the assets in a SPV are bankruptcy remote.
  - The fact that the debt, treated as an interorganizational loan under PSAB, is related to cashflows from a rate regulated asset should not impact its recognition on the balance sheet (similar to how OPG and Hydro One have debt and equity from the Province that gain a return from regulated assets).
  - There is a risk that if the SPV structure dissolves, then the rate regulated assets would be the recourse for the debt, resulting in a fiscal impact with their inability to be recognized on Provincial Accounts.
- **To be confirmed by external accountants – regardless of if the Province invest directly in the SPV or indirectly through OPG, all else being equal, there would be no line-by-line consolidation.**

Under IFRS (Province's Perspective for OPG modified equity method)

- The Province is required under PSAB to consolidate OPG in its books **under the modified equity method, but under IFRS**.
- Thus, OPG Trust must also be considered an SPE for OPG under IFRS for the preferred accounting treatment to be attained.
- The relevant standard is IFRS 10 (below taken from **2017 IFRS standards**) are similar to US GAAP:
- **Par 7** - an investor controls an investee if and only if the investor has **all the following:**
  - **power over the investee**
  - **exposure, or rights, to variable returns** from its involvement with the investee; and
  - **the ability to use its power over the investee to affect the amount of the investor's returns**.
- **Par 17** - An investor controls an investee if the investor not only has power over the investee and exposure or rights to variable returns from its involvement with the investee, but also has the ability to use its power to affect the investor's returns from its involvement with the investee.
- **Relationship with other parties: Par B73** - When assessing control, an investor shall consider the nature of its relationship with other parties and whether those other parties are acting on the investor's behalf (i.e. they are 'de facto agents'). The determination of whether other parties are acting as de facto agents requires judgement, considering not only the nature of the relationship but also how those parties interact with each other and the investor.
- **Par B74** - Such a relationship need not involve a contractual arrangement. A party is a de facto agent when the investor has, or those that direct the activities of the investor have, the ability to direct that party to act on the investor's behalf. In these circumstances, the investor shall consider its de facto agent's decision-making rights and its indirect exposure, or rights, to variable returns through the de facto agent together with its own when assessing control of an investee.
- **Par B75** - Here are examples of parties that, by the nature of their relationship, might act as de facto agents for the investor:
- (a) the investor's related parties. **Criterion is met as Province is a related party.**
- (b) a party that received its interest in the investee as a contribution or loan from the investor. **OPG's only interest in the investee is the 5% if Province funds SPV directly – 5% from capital markets. Criteria not met (TBC).**
- (c) a party that has agreed not to sell, transfer or encumber its interests in the investee without the investor's prior approval (except for situations in which the investor and the other party have the right of prior approval and the rights are based on mutually agreed terms by willing independent parties). **Criterion met based on latest legislation draft**.
- (d) a party that cannot finance operations without subordinated financial support from the investor. **OPG is self-sufficient GBE.**
- (e) an investee for which the majority of the members of its governing body or for which its key management personnel are the same as those of the investor. **Test not met – OPG governing body (Board of directors) is separate from the Province.**
- (f) a party that has a close business relationship with the investor, such as the relationship between a professional service provider and one of its significant clients**. Criterion met**.
- **CEFD interpretation**: The Province directly funding the SPV has the same consolidation effect as indirect funding through OPG.

From:	John Kim
To:	Bruno Amara
Subject:	FW: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx
Date:	Thursday, March 23, 2017 4:22:37 PM

Could you come into this one?

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Thursday, March 23, 2017 4:21 PM
To: John Kim <John.Kim@ofina.on.ca>; Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Ok
416-325-5621

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March-23-17 4:19 PM
To: Esmail, Selena (MOF); Tiburcio, Daniel (MOF)
Cc: Bruno Amara
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Sure, we can give you a call at 4:30?

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Thursday, March 23, 2017 4:15 PM
To: John Kim <John.Kim@ofina.on.ca>; Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Hey john – are you around for a quick chat so we can clarify some things with you?

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March-23-17 3:40 PM
To: Esmail, Selena (MOF); Tiburcio, Daniel (MOF)
Cc: Bruno Amara
Subject: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Hi Selena, Daniel,

We have the attached deck with footers that we hope meet the protocol in sending information to FAO. Could you let us know if it does fit with the protocol.

We have sent a version of this deck up the line and assume that this had gone up to the Minister for something that had gone to Cabinet.

Thanks,

John.

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: FW: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 6:56:49 PM
Attachments: Finance Structure_GA_Rationale for 51%.docx

Just wanted to check in – do you anticipate providing anything for the TB submission on the borrowing requirements of IESO? Or not needed? Just want to make sure I'm flagging incoming content to ENE.

Thanks,
Kaitlin

From: Montgomery, Kaitlin (MOF)
Sent: April 24, 2017 10:18 AM
To: Kim, John (OFA) (John.Kim@ofina.on.ca)
Subject: GA Financing / TB Sub

Hey John,

Just following up on our conversation Friday. You had asked about the rationale for certain levels of financing – passing this note along that we just received from OPG. Let me know if you have further questions on this.

Secondly, I'm starting to pull together materials for the TB submission. The first is seeking appropriation for the equity injections, second is any PILs exemptions that the Province is comfortable with. Lastly, Scott thought you guys might also want something built into the submission about increased borrowing requirements of the IESO – would you be able to draft something for inclusion in the submission on this (if required)?

Let me know what you think.
Kaitlin

CONFIDENTAL **April 18, 2017**

Ontario Power Generation

Issue: OPG has indicated that for the Trust to be consolidated into OPG there is a need to have at least 51% of the debt financing of the Trust originate directly from the external market. This requirement is supported by specific technical guidance on the topic as set out below.

IFRS 10 – Consolidated Financial Statements requires an investor to consider whether there are other parties who are acting on behalf of the investor by virtue of their relationship with it. That is, IFRS 10 requires consideration of whether the other parties (i.e. OPG) are acting as de facto agents for the investor (i.e. Province). If OPG is considered a de facto agent, the consolidation accounting objective will **not** be met.

There are a series of references in IFRS 10 (Section B75) that support this conclusion. Each of these elements must be examined in their totality to successfully address the consolidation principal of the Trust. The importance of each element is amplified due to the fact that OPG is a related party to the Province, which increases the importance of other tests being met. These tests include:

a) a party that received its interest in the investee as a contribution or loan from the investor.
OPG will receive a 44% equity injection from the Province of Ontario, indirectly through the Ontario Financing Authority. Given that currently, the majority (currently 51%) of the Trust debt will be from External Markets and not the Province, it can be argued that OPG did not receive the majority of its interest in the investee as a contribution or loan from the Province. This criterion is not met and shows that OPG is a principal, not a de-facto agent.

b) a party that has agreed not to sell, transfer or encumber its interests in the investee without the investor's prior approval
There is a proposed clause that the Trust cannot be wound up without approval from the Minister of Energy, this criterion is met.

c) a party that cannot finance its operations without subordinated financial support from the investor.
OPG can finance its operations without subordinated financial support from the Province – criterion is not met.

d) an investee for which the majority of the members of its governing body or for which its key management personnel are the same as those of the investor.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

e) a party that has a close business relationship with the investor, such as the relationship between a professional service provider and one of its significant clients.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

Given the number of factors met above, there may be a view that OPG could be considered a de facto agent of the Province through its related party relationship (4 out of 6 items are met). It is of vital importance, and as concurred by EY, that the majority of the debt in the Trust is not more than 44% funded by the Province (note that the remaining 5% of debt has to be funded externally by OPG in order to show that OPG has equity that is not sourced from the Province at risk). If the debt in the Trust is seen by the External Auditors as being principally funded by the Province, OPG would fail 5 out of 6 criteria above and be considered a de facto agent. As a result, proposed consolidation accounting would fail.

From: John Kim
To: Bruno Amara
Subject: FW: GA Smoothing Commences May 1
Date: Friday, April 21, 2017 8:52:39 PM

From: Shajee Kathirgamanathan
Sent: April-20-17 5:55 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: GA Smoothing Commences May 1

FYI, RPP Prices are going down May 1:
https://www.oeb.ca/sites/default/files/news_release_rpp_20170420.pdf

This table is pretty illustrative:

TOU Price Periods	Existing TOU Prices	Forecast TOU Prices without consideration of the proposed Fair Hydro Plan	May 1, 2017 TOU Prices including a portion of the proposed Fair Hydro Plan
Off-Peak	8.7¢/kWh	9.1¢/kWh	7.7 ¢/kWh
Mid-Peak	13.2 ¢/kWh	13.3 ¢/kWh	11.3 ¢/kWh
On-Peak	18.0 ¢/kWh	18.5 ¢/kWh	15.7 ¢/kWh

Full details on the OEB RPP Page: https://www.oeb.ca/industry/policy-initiatives-and-consultations/regulated-price-plan-rpp

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
To: Ronald Kwan
Subject: FW: GA Structure v12Clean.docx
Date: Wednesday, March 22, 2017 3:25:00 PM
Attachments: GA Structure v12Clean.docx

Hi Ron,

This is still the latest version.

Thanks,

John.

From: John Kim
Sent: Friday, March 17, 2017 10:50 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: GA Structure v12Clean.docx

Hi Ron,

Pls. see attached on the GA structure, as we understand things.

It's very complex and not sure if an average person on the street would be able to follow.

Thanks,

John.

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a proposed cap of $2.242B on the annual additional cost over the GA to lessen the burden on ratepayers.

- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in compounding) or if interest will be recovered from ratepayers on an on-going basis.
    - If interest payments are made by ratepayers on an on-going basis debt costs would be lower, however this would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of principal needs to be larger to offset this effect.
- It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers immediately or recognized at the very least as a future benefit to the Province, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that the IESO be required to recover the costs associated with this asset even after selling it.
    - To do this the IESO would need to sell the asset in order to settle its arrangements with generators, and ensure generators are not affected by the deferral.
        - Alternatively, the IESO could simply borrow funds (using the regulatory asset as collateral), but this poses risks for both consolidation on public accounts and credit ratings.
        - With respect to the credit rating risk, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust", which would purchase the regulatory asset from the IESO.
    - The purchase would be funded by debt from the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through debt from the capital markets (5%) and an equity injection from the Province (44%).

    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper sent to the Deputy Minister of Energy on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The equity injection could lead to increasing, and then stabilizing dividend payouts in consistent with OPG's's risk profile and comparable business entities.
    - Principal and interest payments flowing from the ratepayers through the IESO and the Trust could be paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about 10 years time, eventually reaching a cap of $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split, as dividends allow OPG to reduce its retained earnings thereby reducing equity.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts, potentially offsetting ratepayer benefit of the GA deferral mechanism.
- The financing structure split between equity (44%) and debt (5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

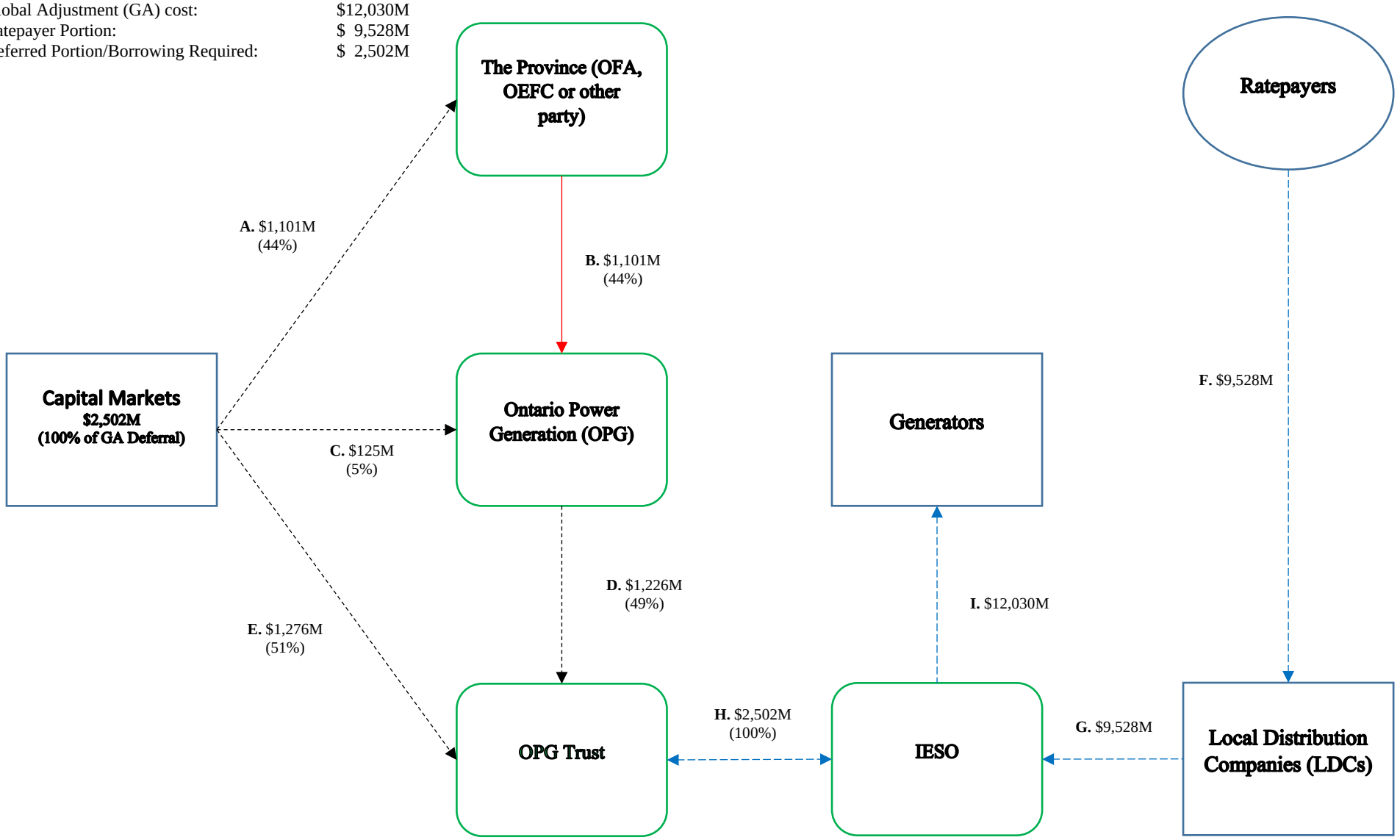
Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments, depending on legislative and regulatory approval, that would impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers on an on-going basis:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers along the way. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be made. Overall, there would be no fiscal cost, and less debt would build up over time due to the elimination of the compound effects on interest.
    - **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which essentially proposes to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.

- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.
- Option 4: **No collection from ratepayers but deferral of expense recognition (Same as Energy's analysis in its Cabinet Submission)**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books and recognize as a regulatory asset, thus eliminating the fiscal impact.
    - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
    - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
    - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
    - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
    - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
    - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
    - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M



Setting up the Trust

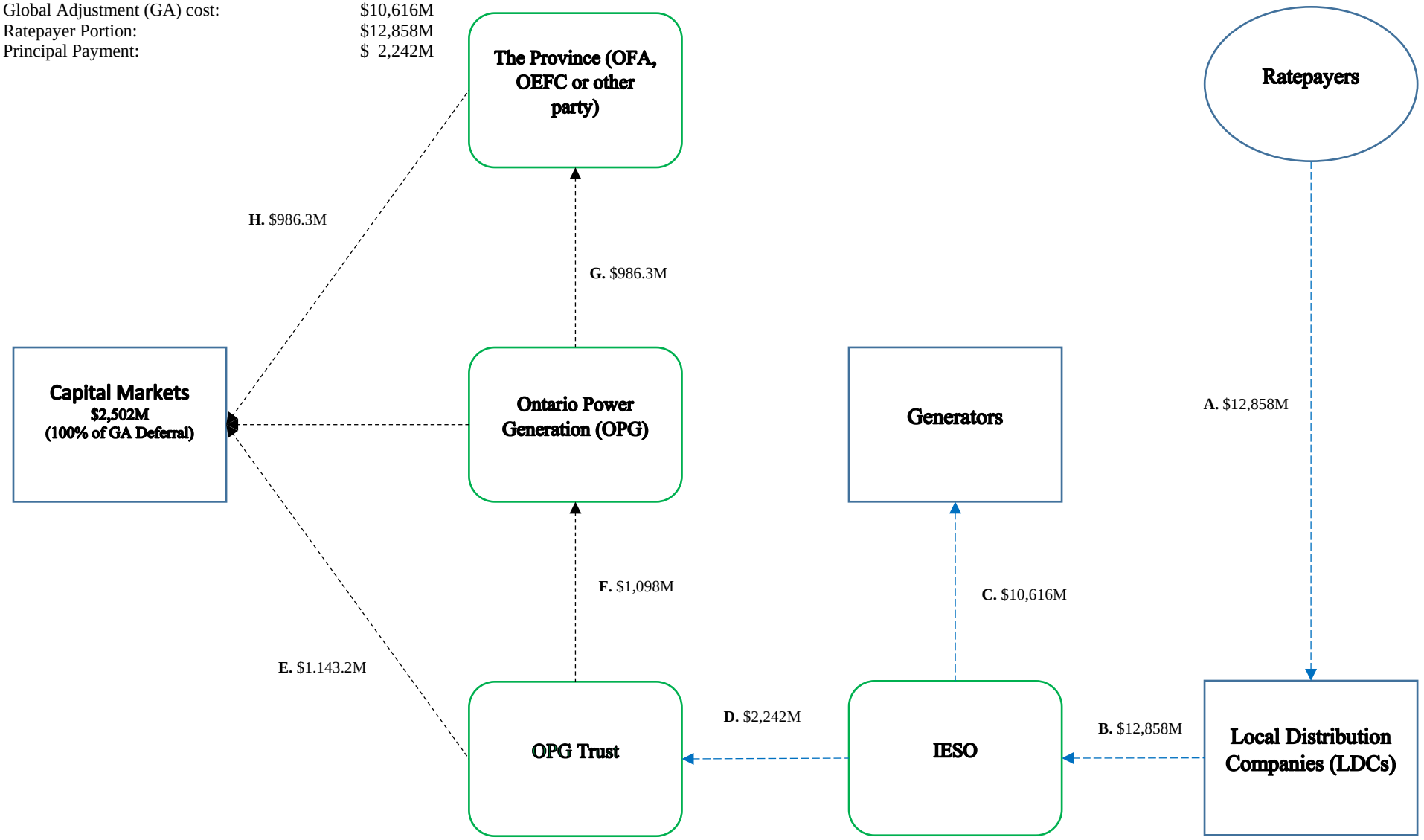
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism

F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

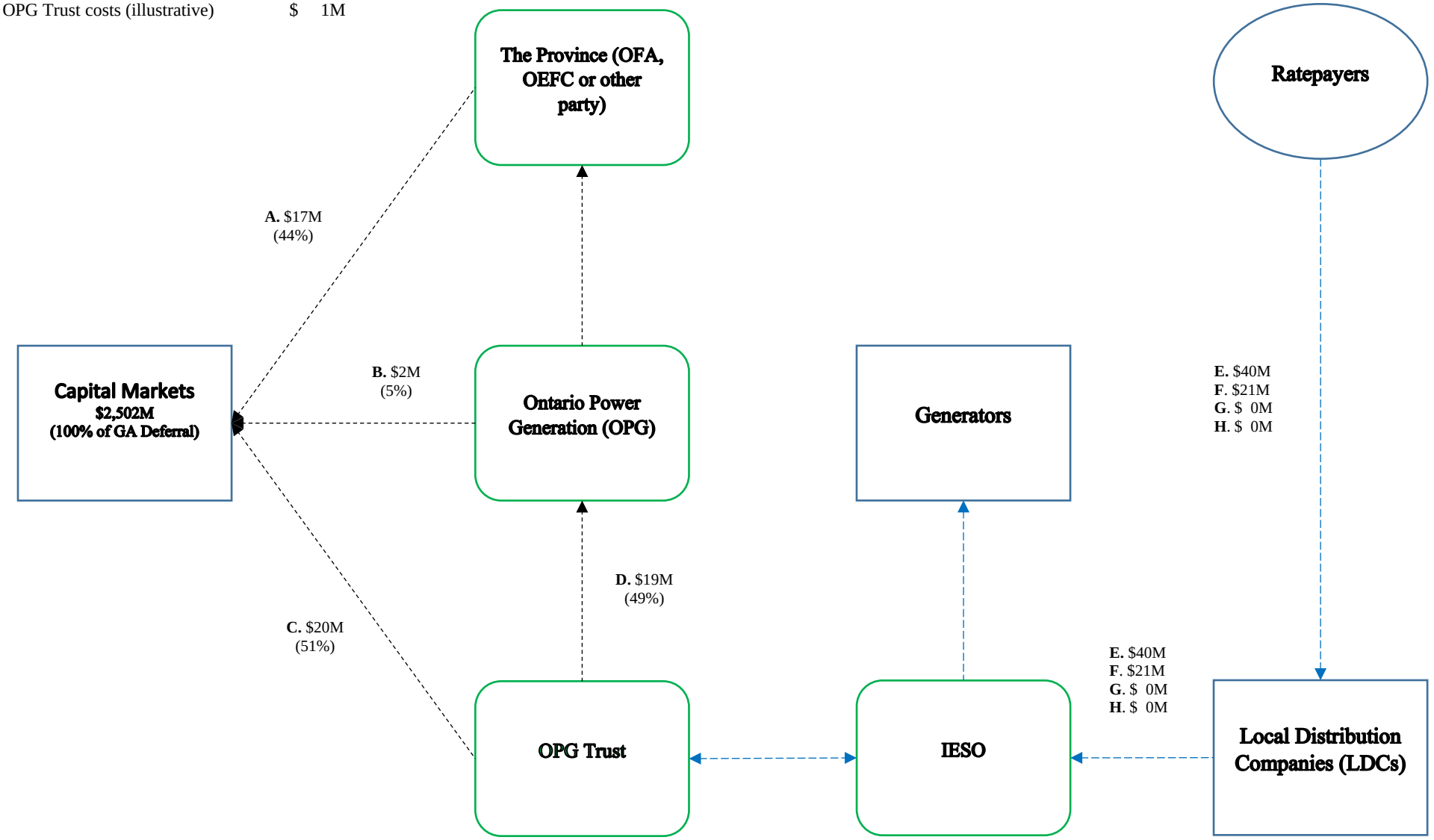
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Corporate and Electricity Finance Division
Ontario Financing Authority
March 17, 2017

From: John Kim
To: Bruno Amara
Subject: FW: GA Structure v12Clean.docx
Date: Thursday, March 23, 2017 2:28:47 PM
Attachments: GA Structure v12Clean.docx

Hi Bruno,

Pls. share this with Felix and James with the caveat of being staff-level internal discussion note. Not reviewed by ADM.

My view is that OPCD should be keeping them in the loop but things don't always work out as should.

Thanks,

John

From: John Kim
Sent: Friday, March 17, 2017 10:50 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: GA Structure v12Clean.docx

Hi Ron,

Pls. see attached on the GA structure, as we understand things.

It's very complex and not sure if an average person on the street would be able to follow.

Thanks,

John.

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a proposed cap of $2.242B on the annual additional cost over the GA to lessen the burden on ratepayers.

- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in compounding) or if interest will be recovered from ratepayers on an on-going basis.
    - If interest payments are made by ratepayers on an on-going basis debt costs would be lower, however this would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of principal needs to be larger to offset this effect.
- It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers immediately or recognized at the very least as a future benefit to the Province, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that the IESO be required to recover the costs associated with this asset even after selling it.
    - To do this the IESO would need to sell the asset in order to settle its arrangements with generators, and ensure generators are not affected by the deferral.
        - Alternatively, the IESO could simply borrow funds (using the regulatory asset as collateral), but this poses risks for both consolidation on public accounts and credit ratings.
        - With respect to the credit rating risk, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust", which would purchase the regulatory asset from the IESO.
    - The purchase would be funded by debt from the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through debt from the capital markets (5%) and an equity injection from the Province (44%).

    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper sent to the Deputy Minister of Energy on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The equity injection could lead to increasing, and then stabilizing dividend payouts in consistent with OPG's's risk profile and comparable business entities.
    - Principal and interest payments flowing from the ratepayers through the IESO and the Trust could be paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about 10 years time, eventually reaching a cap of $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split, as dividends allow OPG to reduce its retained earnings thereby reducing equity.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
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- There are different potential accounting treatments, depending on legislative and regulatory approval, that would impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
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- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.
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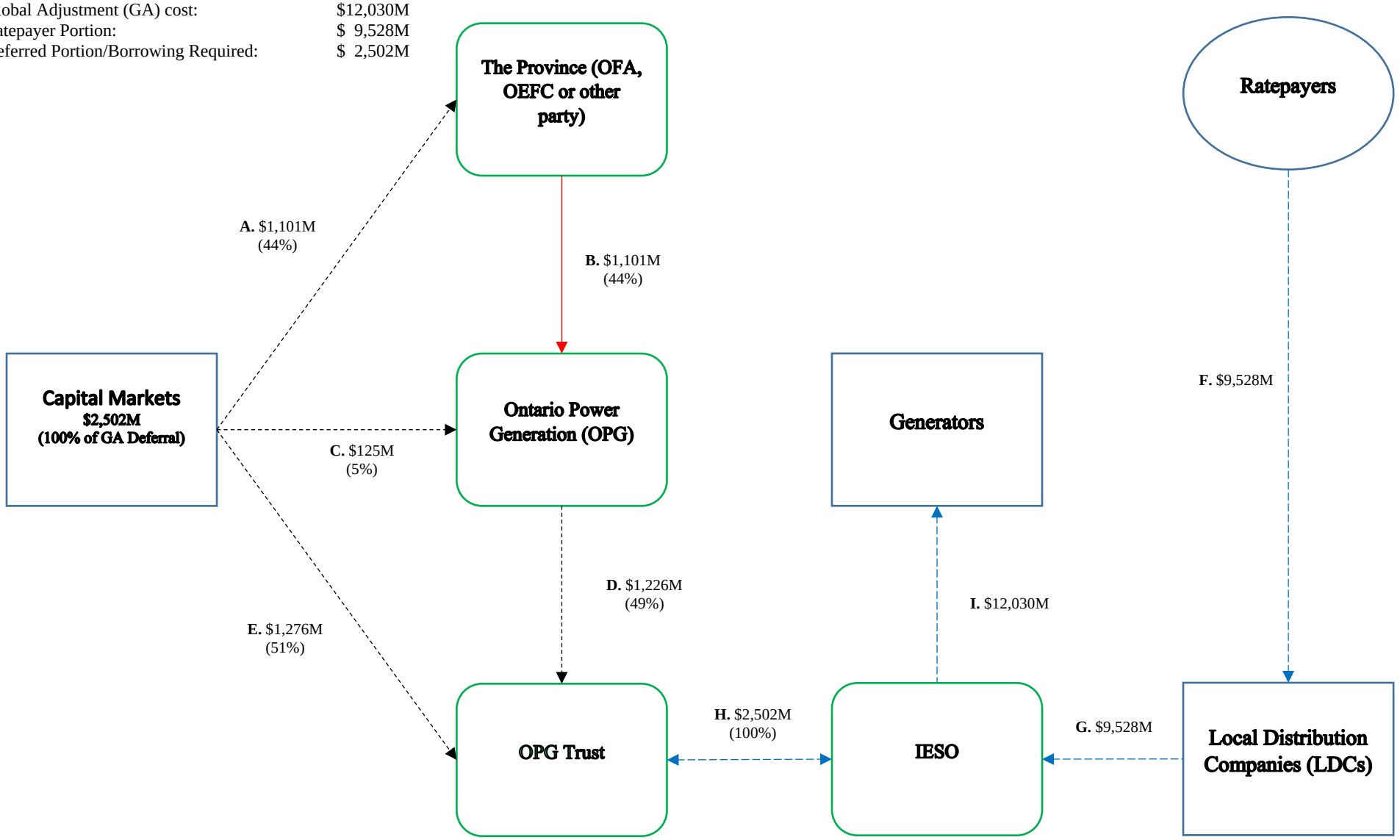

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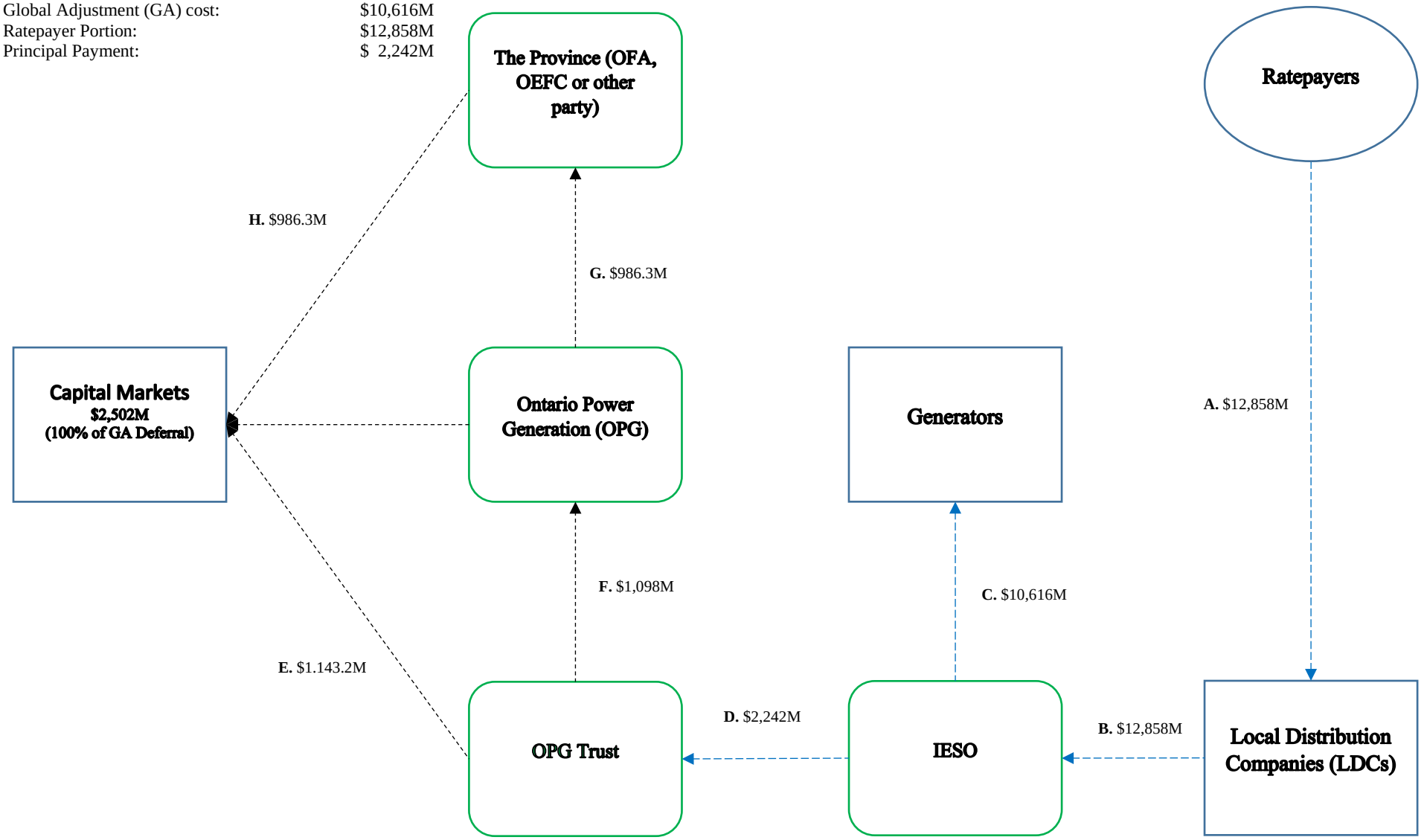

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Interest Recognized	$ 39M
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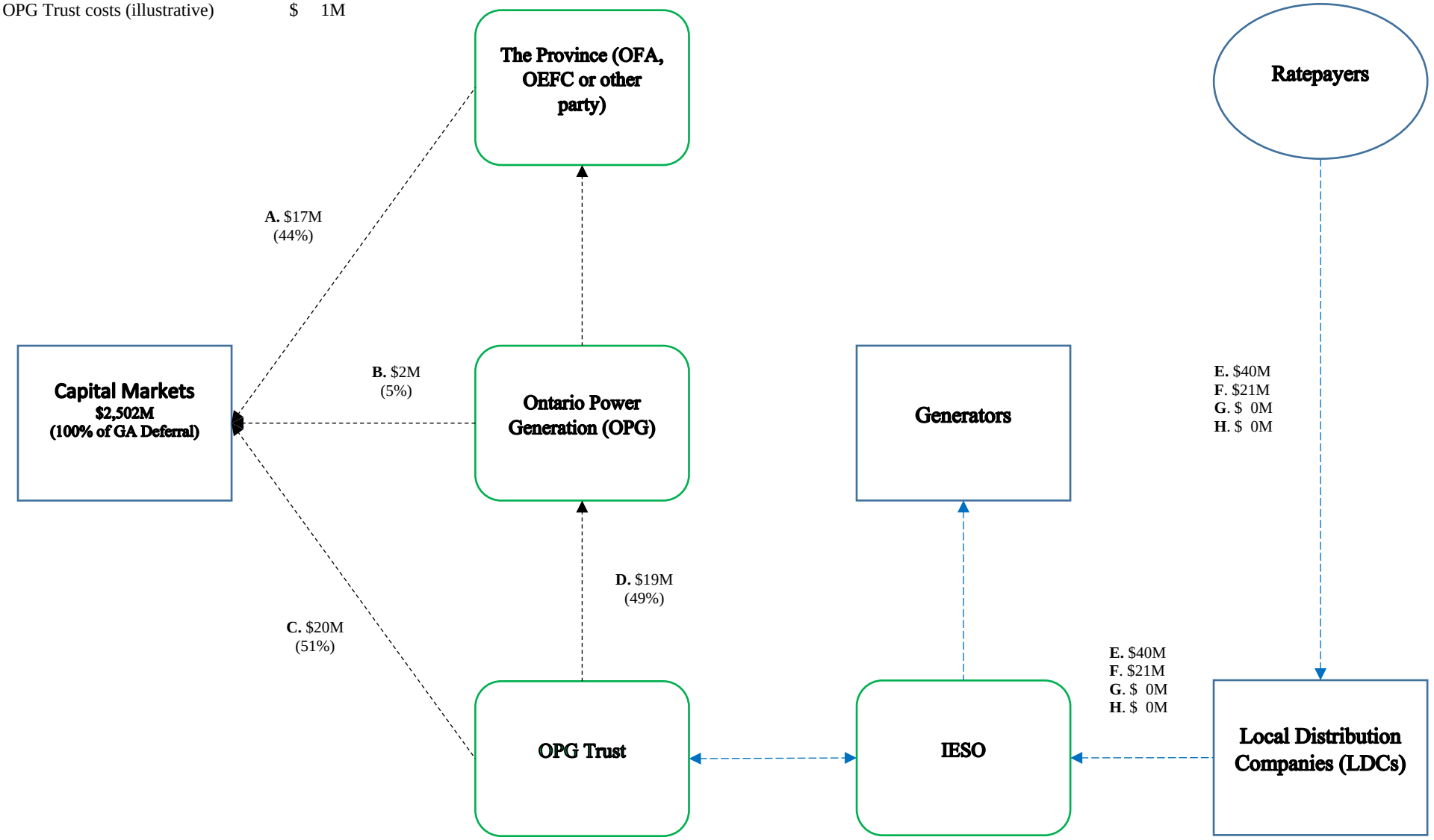

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Corporate and Electricity Finance Division
Ontario Financing Authority
March 17, 2017

From:	Leung, Thomas (MOF)
To:	John Kim; Carlos Yep
Subject:	FW: GA financing - equity injections
Date:	Thursday, March 30, 2017 9:34:59 AM
Attachments:	2017 03 22 GA Financing - Equity Injection Discussion v02.docx

Carlos, Jim,

Below is the initial feedback from our corporate / controllership on the attached proposed process that you're reviewing.

Thomas.

From: Gounden, Pratima (ENERGY)
Sent: March 28, 2017 4:39 PM
To: Leung, Thomas (MOF)
Cc: Montgomery, Kaitlin (MOF)
Subject: RE: GA financing - equity injections

Hi Thomas,

Have you received any feedback from OFA on this document? Would love to see their comments.

Overall the approvals process looks fine.

Minor comments/question:

- PRRT is a four year planning cycle, could we requesting the authority to inject the equity for 4, instead of 3 years?
- We'll probably create an operating asset in Vote 2905 – this is where all the other rate mitigation items are. This I will need to confirm though.
- If Energy is making the equity injection, why are we working with MOF – is it just because you EIGS is under them now?
- Can I assume that the first equity injection would be 2018-19?

Controllership comment is that this is quite complicated and we may want to loop in OPCD and legal in early. They advised there may be a need for external expertise (accounting and legal), but I'll leave this part for now – it's probably too early for this.

Pratima

GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to finance the GA asset on a long-term will obtain financing from two sources on an ongoing basis
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from equity injections from the Province**
        - 5% from capital markets
- OPG will require equity injections on an ongoing basis in order to keep its capital structure in line, and will require flexibility in order to issues shares as needed

GA FINANCING IMPLEMENTATION TIMING:

- **April:** Proposed Legislative Changes Drafted (retroactive to May 1)
- **May 1**: GA smoothing incorporated into "RRP" rates
- **Early June:** Legislation may be passed and SPV created. OPG uses short term facility to accommodate GA asset purchase [OPG TBC]. This represents the earliest possible equity injection [OPG TBC]
- **September**:
    - SPV long-term borrowing begins and would continue

POTENTIAL PROVINCIAL PROCESS FOR EQUITY INJECTIONS

<u>Required Approvals for Equity Injection in May 2017</u>

- ENERGY would seek TB/MBC approval for equity injection up to $xxM over next three years
- Seek approval to use the Operating Asset (vote xx) [ENE CORP TBC]
- Seek appropriation for $xxM in 2017-18 and Note that the out-year requests will be included in ENE's PRRT submission

<u>Ongoing Provincial Approvals Process</u>

- **Nov/Dec**: OPG includes forecasted equity injection requirements in rolling 3-year Business Plan

- **Feb/Mar**: ENERGY seeks TB/MBC approval for equity injection/OPG issuance as part of annual Business Plan concurrence process
    - ENE would seek TB/MBC approval for authority to inject up to $xx in OPG, in exchange for up to xx shares over the next 3 year term [OPG TBC: does this satisfy requirements in articles]
    - Seek approval delegating authority to Minister of Energy to work with the Ministry of Finance to execute equity injections, working with the OFA
    - Seek approval to include the 3-year equity request in ENE's PRRT submission through the operating asset in vote xx
- **Oct/Nov**: ENE would seek appropriation for out-year funding of equity injections

<u>Ongoing Implementation Process</u>

- OPG would send a letter to the Minister of Energy requesting an equity injection of $xx, in exchange for xx shares
- If Minister approves, ENE would work with OFA to flow the money [OFA TBC: Do you need something formal to do this? How much notice do you need to flow the cash? Any other mechanical requirements we should flag?]

Further Considerations

- Share Price Determination:
    - As of December 31, 2016 OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million ($20/share book value)
    - All new issuances would be priced at the same value as existing shares ($20/share)

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan; Salman Qadir
Subject:	FW: GA financing - equity injections
Date:	Thursday, March 30, 2017 9:39:57 AM
Attachments:	2017 03 22 GA Financing - Equity Injection Discussion v02.docx

Fyi.

From: Leung, Thomas (MOF) [mailto:Thomas.Leung@ontario.ca]
Sent: Thursday, March 30, 2017 9:34 AM
To: John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
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- **Early June:** Legislation may be passed and SPV created. OPG uses short term facility to accommodate GA asset purchase [OPG TBC]. This represents the earliest possible equity injection [OPG TBC]
- **September**:
    - SPV long-term borrowing begins and would continue

POTENTIAL PROVINCIAL PROCESS FOR EQUITY INJECTIONS

<u>Required Approvals for Equity Injection in May 2017</u>

- ENERGY would seek TB/MBC approval for equity injection up to $xxM over next three years
- Seek approval to use the Operating Asset (vote xx) [ENE CORP TBC]
- Seek appropriation for $xxM in 2017-18 and Note that the out-year requests will be included in ENE's PRRT submission

<u>Ongoing Provincial Approvals Process</u>

- **Nov/Dec**: OPG includes forecasted equity injection requirements in rolling 3-year Business Plan

- **Feb/Mar**: ENERGY seeks TB/MBC approval for equity injection/OPG issuance as part of annual Business Plan concurrence process
    - ENE would seek TB/MBC approval for authority to inject up to $xx in OPG, in exchange for up to xx shares over the next 3 year term [OPG TBC: does this satisfy requirements in articles]
    - Seek approval delegating authority to Minister of Energy to work with the Ministry of Finance to execute equity injections, working with the OFA
    - Seek approval to include the 3-year equity request in ENE's PRRT submission through the operating asset in vote xx
- **Oct/Nov**: ENE would seek appropriation for out-year funding of equity injections

<u>Ongoing Implementation Process</u>

- OPG would send a letter to the Minister of Energy requesting an equity injection of $xx, in exchange for xx shares
- If Minister approves, ENE would work with OFA to flow the money [OFA TBC: Do you need something formal to do this? How much notice do you need to flow the cash? Any other mechanical requirements we should flag?]

Further Considerations

- Share Price Determination:
    - As of December 31, 2016 OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million ($20/share book value)
    - All new issuances would be priced at the same value as existing shares ($20/share)

From:	Shajee Kathirgamanathan
To:	John Kim
Subject:	FW: GA forecasts
Date:	Monday, March 13, 2017 5:56:56 PM

Fyi, SPFB is looking for some info on the GA forecasts. I'll dig up the info we received from Energy to send their way.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 5:56 PM
To: Karim Javeri <Karim.Javeri@ofina.on.ca>
Subject: RE: GA forecasts

Sure. I think it might have been in some of the files we received from ENERGY. Will take a look at it tomorrow.

Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Karim Javeri
Sent: Monday, March 13, 2017 5:12 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: GA forecasts

Hi Shajee,

We are in the process of evaluating whether or not the Fair Hydro Plan will impact the indices we use to determine NUG contract rates. To do that, it would be useful if you could share you GA estimates – Emily was saying you have been working on GA forecast that reflect the smoothing.

Regards,

Karim

From: John Psinas
To: Ken Kandeepan; George Sakura; John Kim; Francisco Chinchon; Bruno Amara
Cc: Nadine Petsche (MOF)
Subject: FW: MOF - Energy compromise
Date: Thursday, April 20, 2017 10:18:47 AM

---

fyi

--John

416-325-8072

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 10:09 AM
To: John Psinas <John.Psinas@ofina.on.ca>
Subject: FW: MOF - Energy compromise

Hi John - I've been working with John Kim and Carlos Yep on the equity injection structure/process. I'll be coordinating sign-off on the Energy side (including controllership). Once we've worked through what that process might look like we'll need to get sign off from decision makers (ENE and MOF). At this point nothing has been decided and we will likely be picking up discussions on the equity injection next week.

Happy to chat.
Kaitlin

-----Original Message-----
From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: April 19, 2017 3:16 PM
To: Sadasivan, Asokan (MEDG/MRIS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: RE: MOF - Energy compromise

Asokan,

I just want to confirm that the Ministry of Energy will record the equity injection payments (likely on a monthly basis (tbd)) and subsequently record the shares received from OPG going forward. From what I understand, this is line with the Hydro 1 compromise, where new equity will be recorded on Energy's books and that Energy will take the lead in all aspects?

Thanks.

John

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From: John Psinas
To: Francisco Chinchon; John Kim; Bruno Amara
Cc: Ken Kandeepan; George Sakura
Subject: FW: MOF - Energy compromise
Date: Thursday, April 20, 2017 9:25:12 AM

I imagine this puts the timetable to go to Treasury Board to get an operating asset in May at risk if we can't even confirm which Ministry at this point.

--John

416-325-8072

-----Original Message-----
From: Sadasivan, Asokan (MEDG/MRIS) [mailto:Asokan.Sadasivan@ontario.ca]
Sent: Wednesday, April 19, 2017 5:11 PM
To: John Psinas <John.Psinas@ofina.on.ca>
Cc: Bharat Patel (MOF) <Bharat.Patel3@ontario.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; Kevin Hwang <Kevin.Hwang@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Kate Johnstone (MCSS) <Kate.Johnstone@ontario.ca>; Tai An (ENERGY) <Tai.An@ontario.ca>; Pratima Gounden (ENERGY) <Pratima.Gounden@ontario.ca>
Subject: RE: MOF - Energy compromise

John,

Our understanding is that this is still evolving and hence, we are not in a position to comment at this moment.

Regards,

Asokan
416 902 2649

-----Original Message-----
From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: April 19, 2017 3:16 PM
To: Sadasivan, Asokan (MEDG/MRIS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: RE: MOF - Energy compromise

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John

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Cc: Bruno Amara
Subject: FW: MOF - Energy compromise
Date: Thursday, April 20, 2017 4:45:22 PM

FYI, and who is Asokan?

-----Original Message-----
From: Sadasivan, Asokan (MEDG/MRIS) [mailto:Asokan.Sadasivan@ontario.ca]
Sent: Wednesday, April 19, 2017 5:11 PM
To: John Psinas <John.Psinas@ofina.on.ca>
Cc: Bharat Patel (MOF) <Bharat.Patel3@ontario.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; Kevin Hwang <Kevin.Hwang@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Kate Johnstone (MCSS) <Kate.Johnstone@ontario.ca>; Tai An (ENERGY) <Tai.An@ontario.ca>; Pratima Gounden (ENERGY) <Pratima.Gounden@ontario.ca>
Subject: RE: MOF - Energy compromise

John,

Our understanding is that this is still evolving and hence, we are not in a position to comment at this moment.

Regards,

Asokan
416 902 2649

-----Original Message-----
From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: April 19, 2017 3:16 PM
To: Sadasivan, Asokan (MEDG/MRIS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: RE: MOF - Energy compromise

Asokan,

I just want to confirm that the Ministry of Energy will record the equity injection payments (likely on a monthly basis (tbd)) and subsequently record the shares received from OPG going forward. From what I understand, this is line with the Hydro 1 compromise, where new equity will be recorded on Energy's books and that Energy will take the lead in all aspects?

Thanks.

John

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From:	Bruno Amara
To:	John Kim
Cc:	Shajee Kathirgamanathan
Subject:	FW: OEP Request - Fair Hydro Plan Details
Date:	Tuesday, March 14, 2017 4:21:52 PM
Attachments:	BN - Ontario Fair Hydro Plan Impacts v2.docx RE 25% Electricity Price Reduction.....msg

Hi John

I've reviewed Shajee's note and I think this will help OEP get started with their impact analysis. A couple of items added from what you may have looked at yesterday to respond to Ron's comments in his email (attached). In our initial discussion with OEP we agreed that this may be an iterative process. I think that's more efficient for us, so OEP can come back with more specific requests as needed.

Ron did ask to be kept in the loop as we respond to this request. He also suggested that we share with Energy and see if they are fine with us providing the quantitative material (fiscal impacts and GA smoothing debt schedule) or if they wish to provide directly.

Bruno

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 10:55 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: OEP Request - Fair Hydro Plan Details

Hi John,

Attached is the request from OEP on the various impacts on the Fair Hydro Plan.

File also found here:
S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\CEFD Rate Mitigation Analysis\OEP Request\BN - Ontario Fair Hydro Plan Impacts v1.docx

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:53 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: OEP Request - Fair Hydro Plan Details

Sorry forgot to attach the BN.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:52 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: OEP Request - Fair Hydro Plan Details

Hi Bruno,

I developed this BN to provide OEP staff with the info they'd need for the Fair Hydro Plan.

S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\CEFD Rate Mitigation Analysis\OEP Request\BN - Ontario Fair Hydro Plan Impacts v1.docx

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

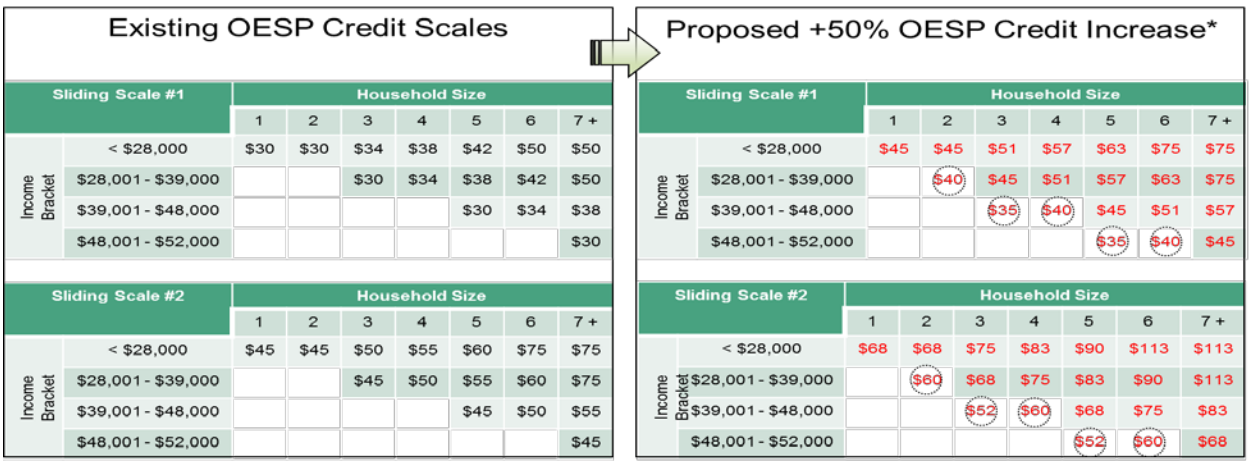
FAIR HYDRO PLAN

Customers / Residential

- **Global Adjustment Smoothing:** Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs.
- The GA accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan the long-term benefit of these assets to the electricity system is recognized and some of current costs are deferring to the future. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact, by in effect. However, there will be an impact on provincial debt over time as various parties including the Province, will need to incur debt to cover current GA costs.

Please see last page for the Annual Debt Schedule.

- **OREC:** All residential consumers received an 8% rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).
- **OESP Expansion:** Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.



Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

- **RRRP Expansion:** Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.
- **First Nations On-Reserve Delivery Credit:** Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

    Staff Comments:
    - Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.
- **Establishing a New Affordability Fund:** Assist electricity customers who need financial assistance to undertake energy efficiency improvements.

    Staff Comments:
    - This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
    - Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

Industry

- **Expand the Industrial Conservation Initiative:** Enhance competitiveness for small manufacturers and industrials. Reduce ICI eligibility to those with monthly peaks of 500 kilowatts, down from the current threshold of 1 megawatt.
    - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

Other

- **Improving Electricity Sector Efficiencies:** IESO's Market Renewal Initiatives are estimated to save the electricity sector (as a total) $200 million per year starting in 2021.

FISCAL COSTS

- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., The costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

- **Fiscal Costs of the RRRP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 14, 2017

From: Ronald Kwan []
To: Bruno Amara [Bruno.Amara@ofina.on.ca]
CC: John Kim [John.Kim@ofina.on.ca]
Subject: RE: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 14:45:23

Thanks Bruno.

Ron

From: Bruno Amara
Sent: March-08-17 12:58
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: 25% Electricity Price Reduction....

OK Thanks Ron. Will proceed on that basis and let you know as we go along.

Bruno

From: Ronald Kwan
Sent: Wednesday, March 08, 2017 12:39 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: 25% Electricity Price Reduction....

Hi Bruno,

Let's be qualitatively responsive, with respect to whom the various proposed elements apply to. It's always good to be seen as the first channel for internal-MOF expertise on electricity-related issues.

So please explain the RPP eligible universe for the GA, and how that it is a shifting of cost recovery in time initiative, though, by targeted design, not with a fiscal impact.

The RRRP and OESP are the bigger to be government funded programs, but if the intent is still to balance, OEP will have to work out whether there is a fiscal stimulus from that, other than the redistributive impact and any associated lower savings rates by those groups.

I think that on the quantitative side, I'd be fine if we asked Energy staff if it's okay to share what we have with OEP for them to do the economic impact analysis, or if Energy wants to provide the numbers directly to OEP.

Please keep me apprised as this progresses.

Thanks,

Ron

From: Bruno Amara
Sent: March-08-17 12:23
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: 25% Electricity Price Reduction....

Hi Ron,

See below the information request from OEP regarding estimating economic impacts of the Fair Hydro Plan. I'm thinking this request should be directed to Energy? But let me know if you think EFB has a role. I think OEP would likely be looking for detail on

•□□□□□□□□ $ impacts on consumer bills (which consumers)

•□□□□□□□□ $ impacts on businesses (which businesses)

•□□□□□□□□ $ fiscal impact to province

And I assume year-by-year outlook for the above.

Bruno

From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: 25% Electricity Price Reduction....

Hi Bruno

I hope all is well at your new position.

I left you a voicemail a few minutes ago. We've been asked by Brian to run a simulation to look at the broader economic impacts of the policy to reduce electricity prices by 25%. To help us model the policy more precisely, it would be helpful if we could get a more detailed description of the policy / program so that we have a better understanding of exactly what the policy is, and which user groups will be impacted etc. Any information about this would be helpful, including cost estimates for the program.

Could you pass this email to the person in your office who might be able to provide the above information?

Thank you!

Michael

416-212-0709

From: Bruno Amara
To: John Kim
Subject: FW: OEP Request - Fair Hydro Plan Details
Date: Wednesday, March 15, 2017 11:27:11 AM

Hi John

Sorry to harass you on this. Did you have a chance to look at this? Or would you prefer that I deal directly with Ron through Gavin and copy you?

Bruno

From: Bruno Amara
Sent: Tuesday, March 14, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: FW: OEP Request - Fair Hydro Plan Details

Hi John

I've reviewed Shajee's note and I think this will help OEP get started with their impact analysis. A couple of items added from what you may have looked at yesterday to respond to Ron's comments in his email (attached). In our initial discussion with OEP we agreed that this may be an iterative process. I think that's more efficient for us, so OEP can come back with more specific requests as needed.

Ron did ask to be kept in the loop as we respond to this request. He also suggested that we share with Energy and see if they are fine with us providing the quantitative material (fiscal impacts and GA smoothing debt schedule) or if they wish to provide directly.

Bruno

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 10:55 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: OEP Request - Fair Hydro Plan Details

Hi John,

Attached is the request from OEP on the various impacts on the Fair Hydro Plan.

File also found here:

S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\CEFD Rate Mitigation Analysis\OEP Request\BN - Ontario Fair Hydro Plan Impacts v1.docx

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:53 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: OEP Request - Fair Hydro Plan Details

Sorry forgot to attach the BN.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:52 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: OEP Request - Fair Hydro Plan Details

Hi Bruno,

I developed this BN to provide OEP staff with the info they'd need for the Fair Hydro Plan.

S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\CEFD Rate Mitigation Analysis\OEP Request\BN - Ontario Fair Hydro Plan Impacts v1.docx

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority

Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
To: Tim Christie (ENERGY)
Cc: John Kim
Subject: FW: OEP impact analysis
Date: Thursday, March 23, 2017 12:14:58 PM
Attachments: Ontario Fair Hydro Plan Impacts to OEP v2.docx

Hi Tim

To introduce myself first, my name is Bruno Amara and have recently joined the Electricity Finance Branch, OFA.

We were contacted in early March by the Office of Economic Policy, MoF who are undertaking an economic impact analysis of the Ontario Fair Hydro Plan. At the time, we provided them with the attached information (ENE password) . The data is sourced from the ENE cabinet submission. OEP has responded asking if some additional information is available. These are mainly with respect to the "Bill Forecasts" in attached table as follows:

1. Would it be possible to provide the "Bill Forecasts – Calendar Electricity Prices" table out to 2040? In particular the Total Bill line prior to the announced changes and impact of Tax Based Social Programs?

2. Similarly would we be able to provide a long-term electricity price forecast for the large industrial segment pre-changes?

3. OEP had also asked whether the "impact of tax-basing social programs" on the table were all reductions on electricity bills rather than off-bill cash transfers.

   With respect to #3, we assume the answer is Yes. But we're not sure if the Affordability Fund would be reflected in those numbers. Based on the cabinet submission we assume the later would be off-bill assistance for energy efficiency measures.

Please let us know how you wish to respond. We can provide the appropriate contacts if you wish to respond directly to OEP.

Thanks
Bruno Amara

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489

Email: bruno.amara@ofina.on.ca

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

The material provided below if sourced largely from the Ministry of Energy's cabinet submission.

FAIR HYDRO PLAN

Customers / Residential

OREC:

- All residential consumers received an "8%" rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).

Global Adjustment Smoothing:

- Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs. The RPP also includes farms and low volume customers (up to 50 kW demand or 250,000 kilowatt-hours annually).
- The GA accounts for the difference between contracted and regulated prices paid to generators compared to the hourly market clearing price, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to be able to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA, while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan, the long-term benefit of these assets to the electricity system is recognized and some of the costs recovered in current rates would be deferred for recovery in future rates. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to eligible ratepayers would be lowered in the short term, reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by an estimated $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact. However, there will be an impact on provincial gross debt over time as various parties including the Province, will need to incur debt to finance the deferral of a portion of current GA costs.

Please see last page for Energy's estimated Annual Debt Schedule.

OESP Expansion:

- Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

RRRP Expansion:

- Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

First Nations On-Reserve Delivery Credit:

- Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

Staff Comments:

- Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.

Establishing a New Affordability Fund:

- Assist electricity customers who need financial assistance to undertake energy efficiency improvements. TB Approved $100 million for 2016-17 (not public).

Staff Comments:

- This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
- Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

Industry

- **Expand the Industrial Conservation Initiative:** Enhance competitiveness for small manufacturers. Reduce ICI eligibility to those with monthly peaks of 500 kilowatts, down from the current threshold of 1 megawatt.
    - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

Other

- **Improving Electricity Sector Efficiencies:** IESO's Market Renewal Initiatives are estimated to save the electricity sector (as a total) $200 million per year starting in 2021.

FISCAL COSTS

- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., the costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

- **Fiscal Costs of the RRRP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	**-**	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:** Existing OESP credit amounts assume ramp-up of take-up rates for the application-based program.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

NOTE: As mentioned above for Affordability Fund, TB Approved $100 million for 2016-17 (not public).

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 16, 2017

From:	Ronald Kwan
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	FW: OFA : IESO - Fair Hydro funding call April 28
Date:	Wednesday, April 26, 2017 11:28:37 AM

Hi John, Bruno,

FYI, and note the reference to O.Reg 280/14. We last amended that in 2015. Would you review to see if you think an amendment is recommended / required.

Thanks,
Ron

From: Anthony Martinello [mailto:Anthony.Martinello@ieso.ca]
Sent: April-26-17 11:06
To: Kim Marshall <Kim.Marshall@ieso.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Michael Boll <Michael.Boll@ieso.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Victor Buza <Victor.Buza@ieso.ca>
Subject: OFA : IESO - Fair Hydro funding call April 28

Proposed Agenda for Friday's discussions:

1.
IESO's need to have $ commitment for funding Fair Hydro shortfalls – we can discuss the quantum during the call

Background to support the $ commitment's rationale:

- Fair Hydro plan propose to lower bills for the next 4 years – with no recovery until post 2022;
- OPG has no requirement to purchase from the IESO;
- For any purchases made, OPG may need a timing delay (liquidity, alignment for investors timing etc.) – may be one or two months after IESO settles the Fair Hydro shortfall each month;
- The monthly Fair Hydro amounts will continue to have +/- forecast variance amounts (these are expected to be funded by IESO, same as RPP today) and the OEB will consider these variances for each FH rate setting

2.
The current $975M OFA-IESO credit facility may be utilized to include the Fair Hydro funding commitment

Background:

- The current $975M includes a component for today's RPP shortfalls – so this amount can be reduced or transformed into the Fair Hydro commitment;
- Looking for more flexibility on the current minimum 28 day borrowing period,.. if OPG buys

from IESO ….would like IESO to pay down the debt as soon as possible;

- Moody's (IESO rating) will be examining if IESO has sufficient capacities to fund FH;
- Examine material adverse clause to accommodate FH

3.

IESO to examine whether O.Reg 280/14 needs to be updated for Fair Hydro – if so, will need IESO Board and Minister of Finance's approvals;

Regards.

This e-mail message and any files transmitted with it are intended only for the named recipient(s) above and may contain information that is privileged, confidential and/or exempt from disclosure under applicable law. If you are not the intended recipient(s), any dissemination, distribution or copying of this e-mail message or any files transmitted with it is strictly prohibited. If you have received this message in error, or are not the named recipient(s), please notify the sender immediately and delete this e-mail message.

From:	Hunter, Robert A. (ENERGY)
To:	John Kim
Cc:	Sunita Chander (ENERGY)
Subject:	FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Monday, March 13, 2017 12:17:26 PM
Attachments:	OREC MOU - OFA.PDF

Good afternoon John,

I am following up on the status of this MOU between the Ministry of Energy and the Ontario Financing Authority regarding the Ontario Rebate for Electricity Consumers (OREC). Has this document been signed and approved by the OFA?

If so, can you please send a scanned copy of the approved Memorandum back to the Ministry of Energy?

Thank you,

-Robert
(416) 325-6899

From: Hunter, Robert A. (ENERGY)
Sent: February-16-17 12:56 PM
To: Kim, John (OFA)
Cc: Chander, Sunita (ENERGY)
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hello,

Please find attached the Ontario Rebate for Electricity Consumers Memorandum of Understanding between the Ontario Financing Authority and the Ministry of Energy for you signature.

After you have approved and signed this document, please send a scanned copy back to the Ministry of Energy, and keep a copy for your records.

Thank you,

Robert Hunter
Policy Advisor – Smart Grid Fund

Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

Memorandum of Understanding
Relating to the
Ontario Rebate for Electricity Consumers

Dated: **January 1, 2017**

Between:

Her Majesty the Queen in right of Ontario
as represented by the Minister of Energy ("**Ministry**")

And:

Ontario Financing Authority
an agency of the Province of Ontario (the "**OFA**")

Whereas:

1. Pursuant to the *Ontario Rebate for Electricity Consumers Act, 2016* and the regulations thereunder (the "Act"), certain consumers will be entitled to receive financial assistance (the "Ontario Rebate for Electricity Consumers" or "OREC") in respect of the cost of electricity consumed by them commencing January 1, 2017;

2. Reimbursement for OREC provided to consumers and persons receiving invoices from unit sub-meter providers ("Reimbursement") will flow to specified electricity distributors, retailers and unit sub-metering providers ("Payment Recipients") through the Independent Electricity System Operator ("IESO") in accordance with the Act;

3. Under the Act, the Ministry will be required to pay amounts to the IESO on account of the OREC Reimbursement (the "Payments") out of amounts appropriated by the Legislature for that purpose ("Appropriated Amount");

4. The Ministry considers it advisable for the OFA to make the Payments on behalf of the Ministry and the OFA has agreed to make the Payments on behalf of the Ministry;

5. The Ministry and the OFA have also agreed to work together on OREC cost forecasting;

6. The Ministry and the OFA wish to enter into this Memorandum of Understanding ("MOU") pursuant to clause 7 (3)(f) of the *Ministry of Energy Act* and subsection 30 (1) of the *Capital Investment Plan Act, 1993* to confirm their agreement regarding the terms on which the OFA will make the Payments and on which the Ministry and the OFA will work together on OREC cost forecasting.

Therefore:

The Ministry and the OFA agree as follows:

1. Payment Authorization

(i) The Ministry authorizes the OFA to make the Payments on behalf of the Ministry and the OFA agrees to make the Payments on behalf of the Ministry.

(ii) The Ministy shall ensure that the certificate under section 11.4 of the *Financial Administration Act* required for each of the Payments is obtained.

(iii) It is agreed by the Ministry and the OFA that the OFA is acting as agent, on behalf of the Ministry, for the purposes of

i. Transacting with the Ontario Shared Services "IFIS" system in order to access funds appropriated for the Ministry in respect of the Act, and

ii. Making the required Payments on behalf of the Ministry as further described in this MOU.

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c) The OFA will make the Payments on behalf of the Ministry, in the amount of the IESO invoices.

d) The Payments will be made in accordance with the IESO Market Rules and IESO Manuals for settlements and billing of market participants, as amended from time to time.

e) The Payments will be made from the Consolidated Revenue Fund and the amount of each Payment will be entered by the OFA into the Province's IFIS system under a pre-defined Ministry account immediately upon the completion of the Payment or shortly thereafter.

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a) The OFA will deliver a notice by e-mail to the Ministry's contact person to confirm the completion of each Payment in the amount of the IESO invoice.

b) The OFA will keep and maintain all records related to the OREC for a period of seven (7) years, and will provide the Ministry with electronic copies (or paper copies, if requested by the Ministry) of such of those records as the Ministry may request from time to time.

c) The requirements under this section shall survive any termination of the MOU.

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c) The OFA and the Ministry will collaborate to prepare fiscal year cost estimates and monthly cashflow estimates for OREC.

d) The OFA and the Ministry will ensure senior management in their respective organizations are briefed and updated on the OREC forecasting on a regular basis to ensure there is mutual understanding and agreement on the forecasts.

e) The Ministry and the OFA acknowledge and agree that the actual costs of OREC may not be the same as the forecasted costs, and the OFA bears no liability for any differences between the forecast and actual costs of OREC, nor does the OFA have any responsibility for any application to Treasury Board for the appropriated amount or for a change in the appropriated amount for OREC.

5. Limited Role of the OFA

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6. Review and Termination

a) The Ministry and the OFA will review this MOU annually.

b) This MOU may be terminated by either party at any time, on 90 days notice.

c) Upon termination of this MOU, the OFA will cease to make any Payments.

d) The parties will cooperate to help to ensure a smooth transition of the payment function upon termination.

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The OFA will not charge the Ministry for the OFA's services or for its disbursements or other expenses incurred under this MOU.

8. Contacts

a) Each party shall designate a member of its staff to be a contact person for the purposes of administering this MOU.

b) As of the date of this MOU the OFA's contact person is:

John Kim
Tel: (416) 212-6996
email: john.kim@ofina.on.ca

c) As of the date of this MOU the Ministry's contact person is:

Robert Burns, Chief Administrative Officer & Assitant Deputy Minister, Corporate Services Division

Tel: 416-327-3682
email: robert.burns@ontario.ca

d) Either party may designate a different member of its staff as its contact person by providing notice to the other party in accordance with section 9.

9. Notice

a) Any notice under this MOU shall be in writing and shall be deemed given when delivered by hand or email, and addressed to the party's contact person.

b) In the case of the OFA, the addresses for notice are:
Hand Delivery:
Ontario Financing Authority
Suite 1400
1 Dundas St. W.
Toronto, ON M7A 1Y7
Attention: John Kim
email: john.kim@ofina.on.ca

c) In the case of the Ministry, the addresses for notice are:
Hand Delivery:
Ministry of Energy, Corproate Services Division

4th Floor, 56 Wellesley St
Toronto, ON M7A 2E7
Attention: Robert Burns, Chief Administrative Officer & Assistant Deputy Minister
email: robert.burns@ontario.ca

10. Execution

The parties have executed this MOU, effective as of the date first above written.

Her Majesty the Queen in right of Ontario
as represented by the Minister of Energy

by:_____

Name: Michael Reid

Title: Assistant Deputy Minister, Strategic, Network and Agency Policy Division, Ministry of Energy

by:_____

Name: Robert Burns

Title: Chief Administrative Officer & Assistant Deputy Minister, Corporate Services Division, Ministry of Energy

Ontario Financing Authority

by:_____

Name: Ronald Kwan

Title: Assistant Deputy Minister
Corporate and Electricity Finance Division
Ontario Financing Authority

From:	John Kim
To:	Gavin He; Shajee Kathirgamanathan
Cc:	Bruno Amara
Subject:	FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Thursday, March 09, 2017 3:17:59 PM
Attachments:	OREC MOU - OFA.PDF

You've seen this before, right?

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Thursday, February 16, 2017 12:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hello,

Please find attached the Ontario Rebate for Electricity Consumers Memorandum of Understanding between the Ontario Financing Authority and the Ministry of Energy for you signature.

After you have approved and signed this document, please send a scanned copy back to the Ministry of Energy, and keep a copy for your records.

Thank you,

Robert Hunter
Policy Advisor – Smart Grid Fund

Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

Memorandum of Understanding
Relating to the
Ontario Rebate for Electricity Consumers

Dated: **January 1, 2017**

Between:

Her Majesty the Queen in right of Ontario
as represented by the Minister of Energy ("**Ministry**")

And:

Ontario Financing Authority
an agency of the Province of Ontario (the "**OFA**")

Whereas:

1. Pursuant to the *Ontario Rebate for Electricity Consumers Act, 2016* and the regulations thereunder (the "Act"), certain consumers will be entitled to receive financial assistance (the "Ontario Rebate for Electricity Consumers" or "OREC") in respect of the cost of electricity consumed by them commencing January 1, 2017;

2. Reimbursement for OREC provided to consumers and persons receiving invoices from unit sub-meter providers ("Reimbursement") will flow to specified electricity distributors, retailers and unit sub-metering providers ("Payment Recipients") through the Independent Electricity System Operator ("IESO") in accordance with the Act;

3. Under the Act, the Ministry will be required to pay amounts to the IESO on account of the OREC Reimbursement (the "Payments") out of amounts appropriated by the Legislature for that purpose ("Appropriated Amount");

4. The Ministry considers it advisable for the OFA to make the Payments on behalf of the Ministry and the OFA has agreed to make the Payments on behalf of the Ministry;

5. The Ministry and the OFA have also agreed to work together on OREC cost forecasting;

6. The Ministry and the OFA wish to enter into this Memorandum of Understanding ("MOU") pursuant to clause 7 (3)(f) of the *Ministry of Energy Act* and subsection 30 (1) of the *Capital Investment Plan Act, 1993* to confirm their agreement regarding the terms on which the OFA will make the Payments and on which the Ministry and the OFA will work together on OREC cost forecasting.

Therefore:

The Ministry and the OFA agree as follows:

1. Payment Authorization

(i) The Ministry authorizes the OFA to make the Payments on behalf of the Ministry and the OFA agrees to make the Payments on behalf of the Ministry.

(ii) The Ministy shall ensure that the certificate under section 11.4 of the *Financial Administration Act* required for each of the Payments is obtained.

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e) The Ministry and the OFA acknowledge and agree that the actual costs of OREC may not be the same as the forecasted costs, and the OFA bears no liability for any differences between the forecast and actual costs of OREC, nor does the OFA have any responsibility for any application to Treasury Board for the appropriated amount or for a change in the appropriated amount for OREC.

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6. Review and Termination

a) The Ministry and the OFA will review this MOU annually.

b) This MOU may be terminated by either party at any time, on 90 days notice.

c) Upon termination of this MOU, the OFA will cease to make any Payments.

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John Kim
Tel: (416) 212-6996
email: john.kim@ofina.on.ca

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as represented by the Minister of Energy

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Name: Michael Reid

Title: Assistant Deputy Minister, Strategic, Network and Agency Policy Division, Ministry of Energy

by:_____

Name: Robert Burns

Title: Chief Administrative Officer & Assistant Deputy Minister, Corporate Services Division, Ministry of Energy

Ontario Financing Authority

by:_____

Name: Ronald Kwan

Title: Assistant Deputy Minister
Corporate and Electricity Finance Division
Ontario Financing Authority

From:	John Kim
To:	Shajee Kathirgamanathan; Gavin He
Subject:	FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Monday, March 13, 2017 12:17:47 PM
Attachments:	OREC MOU - OFA.PDF

Fyi.

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Monday, March 13, 2017 12:17 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Good afternoon John,

I am following up on the status of this MOU between the Ministry of Energy and the Ontario Financing Authority regarding the Ontario Rebate for Electricity Consumers (OREC). Has this document been signed and approved by the OFA?

If so, can you please send a scanned copy of the approved Memorandum back to the Ministry of Energy?

Thank you,

-Robert
(416) 325-6899

From: Hunter, Robert A. (ENERGY)
Sent: February-16-17 12:56 PM
To: Kim, John (OFA)
Cc: Chander, Sunita (ENERGY)
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

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Thank you,

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Ministry of Energy: Distribution and Agency Policy Branch

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Dated: **January 1, 2017**

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by:_____

Name: Michael Reid

Title: Assistant Deputy Minister, Strategic, Network and Agency Policy Division, Ministry of Energy

by:_____

Name: Robert Burns

Title: Chief Administrative Officer & Assistant Deputy Minister, Corporate Services Division, Ministry of Energy

Ontario Financing Authority

by:_____

Name: Ronald Kwan

Title: Assistant Deputy Minister
Corporate and Electricity Finance Division
Ontario Financing Authority

From: Emily Kerr
To: Ronald Kwan
Cc: Gavin He; John Kim
Subject: FW: OFHP Update
Date: Thursday, April 06, 2017 5:51:40 PM

Hi Ron,

Here are some comments/highlights from the social programs sections of the material. Also, a comment on non-bypassability.

- In the document "Policy and Legal Foundations for the Proposed Ontario Fair Hydro Plan Act", non-bypassability does have a question mark. So, I suppose it has not been determined whether consumers exiting the system would be required to make a payment. Although, it is still under consideration.

RRRP

- Requires legislation. TBD if regulations are also required.
- Since the existing RRRP framework (ratepayer funded) would remain in place for Algoma and remotes, the implementation document notes that separation of the RRRP and broader distribution rate protection into separate programs.
- Timing / next steps:
  - A report back to TB/MBC on May 1, 2017 is TBD.
  - Implementation is planned for fall 2017 (per Cabinet minute).

OESP

- Requires legislation and regulation changes.
- Energy is continuing to work with MOF, OEB, CRA on OESP wet signature. I am not familiar with the term "wet signature" but I assume this point has to do with confirming that any increased OESP benefits would not be taxable.
- OEB decision this week expected on removing OESP from bills as of May 1. Energy would like to use OESP variance (approx. $100 million) to reduce current OESP charge to zero and continue funding existing program until government funding is established.
- It is noted that Energy needs to work with IESO/OEB/MOF on technical and governance structures needed to flow government funds to OESP.
- Timing / next steps:
  - A report back to TB/MBC on May 1, 2017 is TBD.
  - LRC on April 10 (document says 2016, but I assume they mean 2017).
  - Program in place in 2017 (per Cabinet minute).

FN On-Reserve Delivery Credit

- Requires legislation. TBD if regulations are also required.
- It is noted that Energy needs to work with IESO/OEB/MOF on technical and governance structures needed to flow government funds to the program.
- Timing / next steps:
  - Report back to TB/MBC by spring 2017 with final program details.

- Program in place in 2017 (per Cabinet minute).

Affordability Fund

- Does not require legislative changes.
- Timing / next steps:
  - On March 23/24 a declaration of trust and transfer payment agreement were executed.
  - On March 30 funds were transferred to Computershare.
  - An Advisory Committee to recommend Board of Trustees by May 31, 2017. Computershare appoints full Board of Trustees.
  - June 2017: Trustees engage with IESO, OEB, others to define funding criteria and processes. Report back to TB/MBC with final program details.
  - Summer 2017: LDCs apply to Trust for funds.
  - Late 2017/early 2018: Energy may apply for additional funds through 18-19 PRRT based on performance and need. Energy was initially allocated $100 million for the fund. The initial request had been for $200 million.

From: Ronald Kwan
Sent: Thursday, April 06, 2017 3:16 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: OFHP Update

Hi,

Please review and provide comments, highlights.

Emily, note the "Non-bypassability (exiting the electricity system / going off grid)" comment.

BTW, I seem to have not yet signed the letter back to Northland. Is that right? Would you get me the signing package on that.

Thanks,
Ron

From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: April 6, 2017 10:35 AM
To: David McLean (MOF)
Cc: Nancy Kennedy (MOHLTC); Gadi Mayman; Ronald Kwan
Subject: OFHP Update

Hi Dave,

Please see the following update (and attached materials) from this morning's rate mitigation meeting:

GA Financing

Legal Update
Fair allocation plan (think of this as the line showing savings and costs to ratepayers associated with this program over time)
Province has set plan for deferrals for the first 4 years (25% and annual increases tied to inflation)
Need process (within pre-set parameters and input from OPG) to determine path for deferrals and recovery for subsequent years (5-30)
Originally viewed Province as taking a role in setting out this path
Feedback from market that Province should not be involved
Need to determine appropriate lead entity (e.g. OPG or IESO)
Need to be linked to life of underlying assets in order to mitigate constitutional risk
Consider 1-2 year refresh on the plan
Structure is still in flux
Treasury Plan
OPG Trust sets this plan
Limited oversight in order to ensure OPG Trust can raise $ in the market at a reasonable cost
Must fit within the limits set by fair allocation plan (but can vary under the cost curve depending on market and interest rate realities)
Once specific bonds issued, fair allocation plan cannot override
Role for OEB
Needs to be extremely limited in order to meet market requirements
However need to project consumer confidence
Options are currently under reivew
Collectability is a key point that requires a number of provisions in legislation including
Irrevocable charges
Role of LDCs, IESO in collections
Non-bypassability (exiting the electricity system / going off grid)
Provincial back-stops
Springing guarantees that arise in the event Province takes certain actions that erode value to bondholders
Need to be limited and contingent in order to meet accounting tests
Dealers considering whether this needs to be in legislation or in a side agreement
Want to make sure that it is narrowly focused in terms of triggering events to cover only material impacts and avoid unintended consequences (investors taking legal action)

- Over time as relevant policy changes are implemented, trustee may look to a 3rd party (e.g. opinion, ratings confirmation) to ensure that value of debt is not degraded

If Province takes on any of the debt, need to determine what can happen from an accounting perspective. Situations to review:

Temporary freeze on borrowing markets
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Timeline for legislation
Pens down April 21
May 1st TB, LRC, Cab
May 4th introduction
Currently working from a Blakes document as a straw-person that would act as instructions to legislative counsel
Driving to timeline, very aggressive

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RBC, CIBC, Goldman included
Discussed this is much larger than past models
Imperative that this structure follows past transaction models
Also reviewed stress scenarios (interest rates are most impactful)
Shareholder letter
Providing to committee tomorrow and will share with government thereafter
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Certain characteristics needed in order to support senior debt financing (most notably will take on longevity risk)
Characteristics of the sub-debt would drive pricing (not tied to Province's cost of funds; likely to be higher interest rate)
At minimum, want to ensure that OPG's earnings are higher to offset incremental IOD to the Province

OEB
Comfort letter from the Province is nearly ready, hopefully tomorrow
Balancing amount of information needed

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Want to narrow issues to what is needed in legislation
Regulatory asset
Speaking with KPMG today
Meeting with ENE today to discuss business issues

Affordability Fund
Advisory committee established to recommend final trustees
Will start mid-month deliberations
By May 31
3 from LDCs and 2 from social services
Hydro One is providing logistical support

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Same timelines for approvals as GA

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Walk through with ENE / MoF staff on April 19th
TBS will share technical materials in advance

FAO
Submitted materials last week
Will circle back to determine status

Thanks,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681

scott.nelms@ontario.ca

From:	John Kim
To:	Bruno Amara
Subject:	FW: OFHP Update
Date:	Thursday, March 23, 2017 5:58:34 PM
Attachments:	TOR_2024-#12889484-v2-Update.docx

Fyi.

From: Ronald Kwan
Sent: Thursday, March 23, 2017 5:57 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Subject: FW: OFHP Update

Hi,

FYI.

And, Emily, note the Blakes' point on ''Need to deal with opting out to ensure lenders are protected'.'

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-23-17 14:55
To: David McLean (MOF) <David.McLean@ontario.ca>
Cc: Nancy Kennedy (MOHLTC) <Nancy.Kennedy@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Vivienne Skoberne (MOHLTC) <Vivienne.Skoberne@ontario.ca>
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Hi Dave,

Please see the following update from this morning's Fair Hydro Plan discussion. Gadi, please jump in if there is anything that I have missed.

- **Global Adjustment Financing updates**
  - Blakes: (see attached document)
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      - This is one of the major tools to defend against a challenge (matching with asset life)
      - Ideal if can demonstrate overpayment by current and past ratepayers = deferral
      - Further bolstered by a study from Navigant to demonstrate long lived assets
      - Aiming to reduce risk

        - Requirements for the Asset:
            - Needs to be clearly defined
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            - Will lenders accept next tranche paying interest for the previous tranche? OPG is working through this and believe they have a viable path
            - How to determine timing around when OPG purchases the asset from IESO?
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                - Action: OPG will return with a proposal
        - Legislation
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            - No calculations in legislation (instead in regulation)
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            - LRC on May 1st, also TB report back
            - Introduction on 4th of May
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        - OPG Board Committee up and running (will align with legislative timeline)
            - Draft Dec/Res underway (needed in 1/2 weeks)
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        - Bank discussions:
            - Met yesterday
            - Lead banks considering this as a hybrid vehicle (not just securitization)
                - Can tap several markets so better pricing
            - Challenge to define capacity for the trust vehicle
                - Banks asked to define what is required as lender's protection (financing covenants, ratings etc.)
        - Building more robust financial model to support credit rating and financing discussions
        - Meet with rating agencies in next few weeks
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        - Number of legal documents being developed in parallel
        - Plan to embed OFA team members with OPG as discussions progress
    - IESO:
        - Operationalizing social programs, RPP - going well

Need to talk to OFA about terms and size of line of credit in order to ensure it will be sufficient for GA refinancing
        - Board approved 2016 financials
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        - RPP:
            - Comfort letter to take into account in RPP, not want to be prescriptive
            - In process of forecasting RPP
            - Mid-April announcement (after Easter)
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from LDCs and Social assistance agencies
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- **Bill presentation**
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    - ENE staff will begin to work something up for review

Scott

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The legislative team is currently working through a number of detailed issues surrounding possible transaction structures to ensure that the legislative framework provides appropriate flexibility.

What follows are some of the issues currently under consideration by the legislative team:

1. "Deferral" Characterization

- The concept of "deferral" mischaracterizes the true nature of the program
- GA Smoothing Program is intended to spread the cost of the generation assets to which the GA applies among the present and future ratepayers who will be expected to benefit from such assets (having regard to the useful life of the assets in question)
- Linking the charges to the useful life of the assets, and spreading the costs more fairly across the generations of ratepayers benefitting and expected to benefit from the assets, helps to make it clear that the program costs are intended to be a regulatory charge to ratepayers and not an indirect tax

2. Market Considerations

- Capital market requirements are becoming clearer, including the elements surrounding the definition of and rights related to the regulatory asset, and further refinement will be necessary as we obtain more specific input from financial advisors and stakeholders
- The obligation to pay must be a traceable obligation directly to the individual consumers in the applicable rate class and the legislation must provide for a pre-agreed collection mechanism
- An issue being considered is whether there will be any concern by the market that the cash flow needed to service all of the financing costs due within any period will be constrained by the policy objective regarding maximum annual rate increases for the relevant class of ratepayers. Consideration should be given to ways to provide certainty of cash flows in circumstances where payments under the financing obligations become due prior to the corresponding cash flows from the regulatory asset are available.

3. Timing and Frequency of Sales of the Regulatory Asset to the Financing Entity

- What triggers a sale of the regulatory asset from IESO to the Financing Entity?
- Until a sale occurs, IESO will need to finance the shortfall. For what duration?
- Bond issuances will not occur monthly – and the timing of long term financing in the capital markets will, in part, be linked to market conditions.
- Which entity (IESO/Financing Entity) will obtain non-market-based funding (for example, bank financing) until market-based funding is obtained (both at the outset and throughout the life of the program)?

- Would the funding of any shortfall occur no matter what the conditions are in the financial market or the electricity market?

    - Electricity market: large fluctuations (e.g. rise) in commodity price of electricity could materially impact the amounts which need to be borrowed annually

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From: Ronald Kwan
To: John Kim; Emily Kerr
Subject: FW: OFHP Update
Date: Thursday, March 23, 2017 5:56:37 PM
Attachments: TOR_2024-#12889484-v2-Update.docx

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From:	Gavin He
To:	John Kim; Emily Kerr
Cc:	Ronald Kwan
Subject:	FW: OFHP Update
Date:	Thursday, April 06, 2017 7:17:31 PM
Attachments:	Agenda_Weekly Rate Mitig Implmentation Group_Mar 6.docx Consolidated - OFHP Matrix - Week of April 3.docx FHP Policy Foundations 04 04 2017 v.3.docx

Hi John/Emily,

Please find attached the updated OFHP materials for your review.

Regards,
Gavin He

From: Gadi Mayman
Sent: Thursday, April 06, 2017 6:51 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>; 'Gavin.He@ofina.on.ca'
Subject: Fw: OFHP Update

From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: Thursday, April 6, 2017 10:35 AM
To: David McLean (MOF)
Cc: Nancy Kennedy (MOHLTC); Gadi Mayman; Ronald Kwan
Subject: OFHP Update

Hi Dave,

Please see the following update (and attached materials) from this morning's rate mitigation meeting:

GA Financing

Legal Update

- Fair allocation plan (think of this as the line showing savings and costs to ratepayers associated with this program over time)
  - Province has set plan for deferrals for the first 4 years (25% and annual increases tied to inflation)
  - Need process (within pre-set parameters and input from OPG) to determine path for deferrals and recovery for subsequent years (5-30)
  - Originally viewed Province as taking a role in setting out this path
    - Feedback from market that Province should not be involved

    - Need to determine appropriate lead entity (e.g. OPG or IESO)
    - Need to be linked to life of underlying assets in order to mitigate constitutional risk
    - Consider 1-2 year refresh on the plan
    - Structure is still in flux
- Treasury Plan
    - OPG Trust sets this plan
    - Limited oversight in order to ensure OPG Trust can raise $ in the market at a reasonable cost
    - Must fit within the limits set by fair allocation plan (but can vary under the cost curve depending on market and interest rate realities)
    - Once specific bonds issued, fair allocation plan cannot override
- Role for OEB
    - Needs to be extremely limited in order to meet market requirements
    - However need to project consumer confidence
    - Options are currently under reivew
- Collectability is a key point that requires a number of provisions in legislation including
    - Irrevocable charges
    - Role of LDCs, IESO in collections
    - Non-bypassability (exiting the electricity system / going off grid)
- Provincial back-stops
    - Springing guarantees that arise in the event Province takes certain actions that erode value to bondholders
    - Need to be limited and contingent in order to meet accounting tests
    - Dealers considering whether this needs to be in legislation or in a side agreement
    - Want to make sure that it is narrowly focused in terms of triggering events to cover only material impacts and avoid unintended consequences (investors taking legal action)
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- Will circle back to determine status

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Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
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scott.nelms@ontario.ca

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 6, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

3) Bill Presentment (SNAP)

4) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 3, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation • Defining mitigation and recovery mechanism; and • Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg. 95/05) • Shareholder Resolution (work with OPG to determine form) • Third Party Technical Report re Long Lived Assets (TBD) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market	• IESO Board meeting on April 11, 2017 (TBD) – ESP to present on OFHP • AG briefing on April 19, 2017 (TBD) • Provide comfort level to allow OEB to include in May 2017 RPP • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	• OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • Legislative walk-through and working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Tuesday to work through issues related to legislation • LSB / Blakes to brief OPCD on legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap • Blakes / LSB to work with MAG on a second constitutional law	

Item	Key Deliverables / Considerations	Timing / Next Steps
	opinion from Peter Hogg • TD being engaged through OFA to provide financial advice • ESP to make presentation on GA financing at upcoming IESO Board meeting <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP/LSB working on LRC package for OESP enhancements • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • Board decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. <u>Considerations</u> • Legislative changes not required.	**April 7, 2017:** • Briefing for Advisory Committee members **April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) • ESP to consider implications of dropping below 500kw threshold due to investments in conservation <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • Ministry preparing responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion on April 19, 2017 (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment	• Initial discussion on March 31, 2017

Policy and Legal Foundations for the Proposed Ontario Fair Hydro Plan Act
April 4, 2017

Creating the Regulatory Framework

- Principles will link the benefit of the "Green Generation Initiative" with the regulatory cost that future rate payers will pay
- Need to name and articulate "Green Generation Initiative"

Fair Allocation Plan

- Policy direction around intergenerational funding will be established by the Minister of Energy
- The Fair Allocation Plan has been determined for the 1st four years, as set out in the March 2nd announcement
- Should there be a process around the Fair Allocation Plan [or as necessary]?
- [Role for the OEB?]

Treasury Plan

- Created by OPG to implement the Fair Allocation Plan
- Will pass through actual costs and expenses of funding obligations incurred
- 3 components:
    - Treasury Plan must be compliant with principles and parameters of the Fair Allocation Plan;
    - The Plan must match maturities to allocations under the Fair Allocation Plan, as well as achieve funding efficiencies and cost management articulated in the Fair Allocation Plan; and
    - Implementation
- Should [Minister?] [OEB?] review [and approve?] the Treasury Plan? At what point in process?

Establishment of the Regulatory Asset

- Right to recover from rate payers, through collection by LDCs and IESO, the regulatory charge, late fees, interest established by legislation
- IESO may dispose of (by assignment, transfer, sale, etc.) its right, title and interest in the Regulatory Asset
- Legislation will create property rights and allow for security interests in the Regulatory Asset
- [Role of the OEB in establishing the Regulatory Asset?]
- Role of OPG in acquiring the asset?

Ensuring Collectability

- Clearly defined class of rate payers that receive and pay for the benefit
- Charges are irrevocable
- LDCs have duty to invoice rate payers for the charge
- IESO and LDCs have duty to collect charges as agent and pay remittances to IESO
- IESO has duty to pay remittances to the Regulatory Asset Owner
- Non-by-passability – subject rate payers who opt to go off grid to a penalty (prepayment)?
- True up mechanism to reconcile collections with incurrences
- Province shall not take steps to reduce, alter, impair or terminate the Regulatory Asset or collection

OEB Role

- [Inspect books and records?]

DRAFT

- [Approve administrative costs?]
- [Prudence review of financing costs?]
- [Consequences of OEB review?]
    - Ability to review
    - Ability to review and make recommendations (non-binding)
    - Review and approve or refer back for reconsideration (binding)

Provincial Guarantee

- Scope / Triggers / Consequences / Form

DRAFT

From: Bruno Amara
To: John Kim
Subject: FW: OPG Equity Injection
Date: Friday, March 31, 2017 4:08:13 PM
Attachments: BN - GA Equity Injection Structure v6.docx

Hi John

We sent the attached draft note and offered follow-up discussion. Should MoF Legal be invited to work group calls or is it fine to just keep them in the loop.

By the way. Sorry, not much of a day off for you.

Bruno

From: Shajee Kathirgamanathan
Sent: Friday, March 31, 2017 2:57 PM
To: Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: OPG Equity Injection

Hi Toby,

Hope you're doing well.

I understand you may have had some discussions with Bruno about the Province's role with the GA Smoothing/Financing and the OPG equity injection.

We developed the attached ***draft note*** to provide a high level overview of the Province's Equity Injection. There are still some questions we have that are yet to be answered, hence the 'TBC' and frequent comments.

Nevertheless we thought it might be helpful to provide this to you as a launching off point for further discussions.

Happy to chat further.

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor

Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for OPG from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority are coordinating with Ontario Power Generation to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle henceforth referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be required to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized.

Commented [AP1]: Legislation being proposed from the White Paper suggest that IESO would collect these payments to be remitted to OPG Trust.

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
- Longer term debt will be issued as soon as possible, subject to market timing constraints..
    - OPG retains 3 dealers to advice on the long-term borrowing and financing of the GA.
    - The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].
- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province will provide monthly equity injections to OPG
- In return, OPG will issue new shares to the Province at a value of $20 per share.
- These share issuances will be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
    - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
    - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
    - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ22]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.

- Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
- Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
March 30, 2017

From:	John Kim
To:	Francisco Chinchon
Subject:	FW: OPG TB
Date:	Monday, April 24, 2017 1:20:11 PM
Attachments:	2017 04 11 OPG Business Plan Review v8Sent.pptx 2017 03 14 OPG concurrence letter v6_markup3.docx

Protocol….

From: John Kim
Sent: Monday, April 24, 2017 1:19 PM
To: 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>
Subject: RE: OPG TB

Hi Kaitlin,

There you go.

Thanks,

John

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Monday, April 24, 2017 9:14 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG TB

Great – thanks john – we have a meeting at 3:30 today with ENE DM to review the opg submission/letter so if at all possible to get those in advance it would be very helpful.

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 24, 2017 9:12 AM
To: Montgomery, Kaitlin (MOF)
Subject: RE: OPG TB

Hi Kaitlin,

We will try to send these back with comments today. We have some issues with the concurrence letter.

Thanks,

John

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, April 18, 2017 6:08 PM

To: John Kim <John.Kim@ofina.on.ca>
Subject: OPG TB

Hey John – wanted to pass along drafts of the OPG BP TB materials and concurrence letter. The deck and word doc submission are the same so feel free to just comment on one version. These are currently out for review by ENE so likely will be a few more changes to be made but wanted to give you guys a chance to review/input.

Happy to chat
Kaitlin

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Ontario

MINISTRY OF
ENERGY

OPG Business Plan

May 2017

Context

- As required by the Memorandum of Agreement (MOA) between Ontario Power Generation and the Minister of Energy, OPG provided its Business Plan for 2017-2019 to the Ministry of Energy on November 29, 2016 for concurrence
  - Note that while OPG is seeking concurrence for its three year 2017-19 business plan, the plan also includes financial projections for 2020 and 2021
- The Minister's concurrence requires presentation of OPG's business plan before TB/MBC
- The Ministry of Energy review and analysis of OPG's business plan is supported by the Electricity Investment and Governance Secretariat, a unit within the Ministry of Finance and the Corporate and Electricity Finance Division of the Ontario Financing Authority
- The following presentation provides an overview of OPG's business plan, including:
  1. Business Plan Overview
  2. Other Considerations

Context *(cont'd)*

- Proceeding with Provincial concurrence now will demonstrate that OPG has support from its shareholder as it implements the plan and provides clarity to the Ontario Energy Board (OEB) as it reviews OPG's current rate application covering the 2017-2021 period

- Business plan forecasts may be affected by Ontario's Fair Hydro Plan (OFHP). Given the stage of implementation of OFHP and the timing of the receipt of the business plan in November 2016, these changes are not reflected in OPG's plan

  - The Ministry anticipates that as part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would purchase the right to future cash flows from IESO, financed partly by capital infusions from the Province, and majority by third-party lending

  - These changes are generally expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income

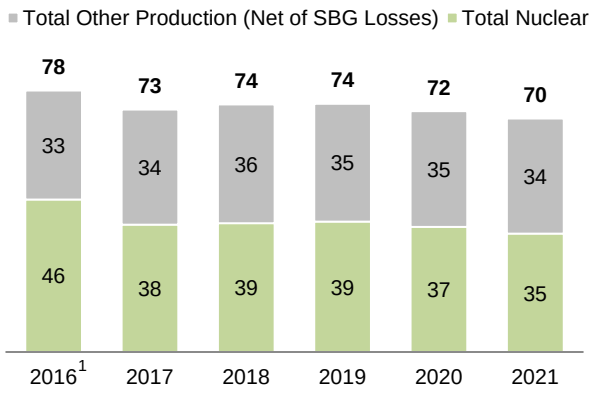
  - In addition, the Province's net debt position should remain unchanged

1. Business Plan Overview

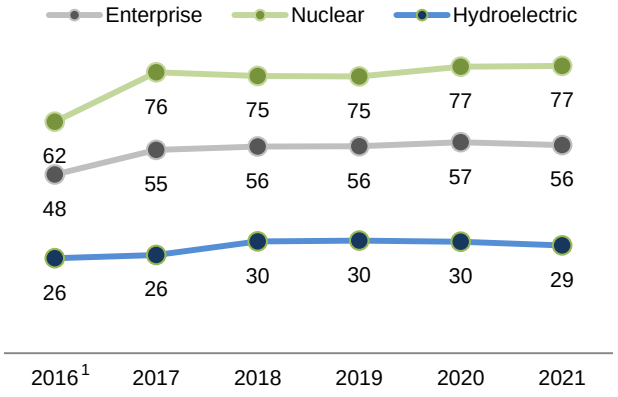
a) Production & Total Cost of Generation

- OPG's production is expected to fall to 69.8 TWh by 2021 from 78.2 TWh in 2016
  - Reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016
  - Also includes a partial overlap starting in 2021 between second and third unit refurbishments
- While Operations, Maintenance and Administration (OM&A) remains relatively stable over the planning period (see next slide), total generating cost (TGC)* shows an increasing trend over the planning period relative to 2016, reflecting:
  - Lower nuclear production due to Darlington refurbishment outages, and
  - Increased sustaining capital spending (included in TGC) on two large hydroelectric projects, the Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation

Production (TWh)



Total Generating Cost ($/MWh)



1. Actuals

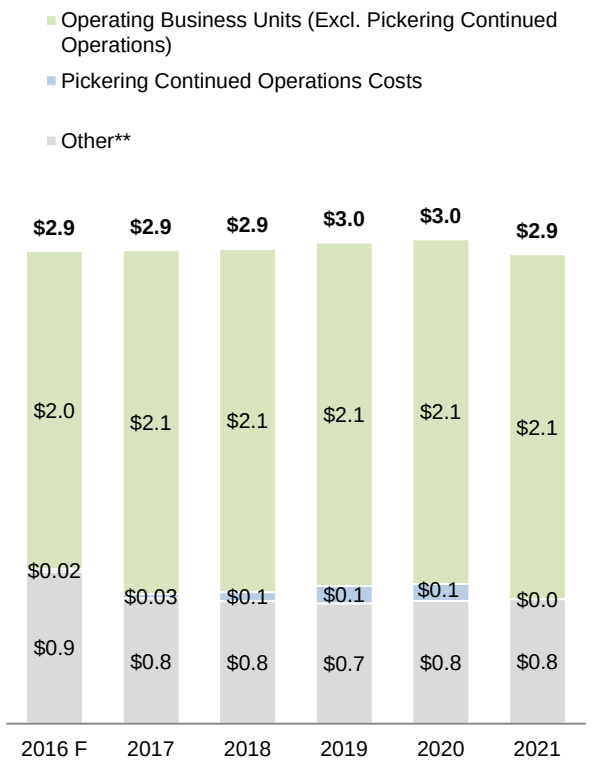
*TGC = OM&A expenses from ongoing operations + fuel and Gross Revenue Charge expenses for OPG-operated stations + sustaining capital expenditures) divided by OPG generation adjusted for surplus baseload generation losses

1. Business Plan Overview

b) Operations, Maintenance and Administration (OM&A) Expenses

- Annual OM&A expenses from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year
- Increases over 2016 are mainly attributable to:
  - Increases in business unit expenditures, including changes in nuclear outage scope at Darlington, and planned hiring to fill staffing gaps
  - Incremental outage and other program costs to enable Pickering continued operations
  - Partially offset by declining pension and OPEB costs over the period due to projected pension asset returns, increased employee contributions, and adoption of a new method for applying discount rates to determine interest components of pension costs

OM&A from Ongoing Operations* ($B)



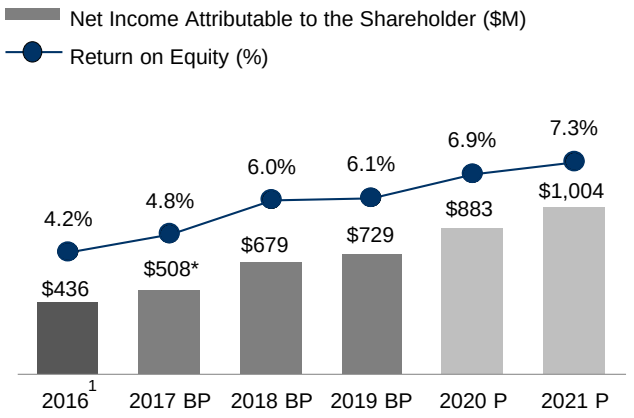
*Excludes Darlington refurbishment OM&A expenses and all OEB variance and deferral account offsets
** Includes centrally held pension /OPEB costs and support services

1. Business Plan Overview

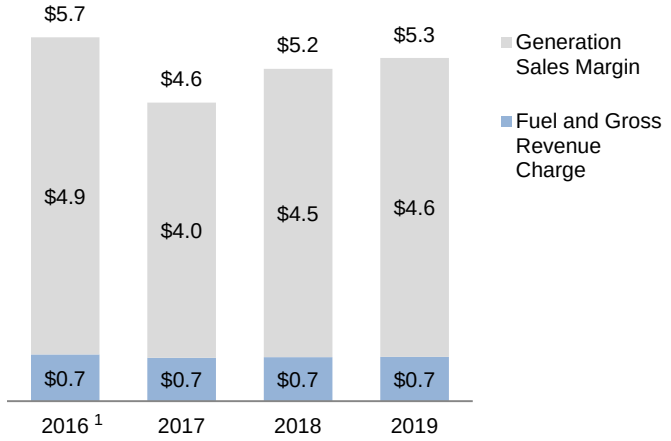
c) Financials

- OPG is forecasting net income attributable to the Shareholder to reach $1B in 2021, from $436M in 2016
  - 2017 net income is forecast to increase as a result of new regulated rates, a gain on sale of OPG's head office, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations
  - Net income in 2018 and 2019 is planned to increase, primarily due to higher forecast production, and earnings from oncoming stations, including Nanticoke solar in 2019
- As a result, return-on-equity (ROE) is estimated to increase from 4.2% in 2016 to 7.3% by 2021
- Overall, the 2017-19 Business Plan is largely unchanged relative to last year's plan in terms of commitments for Net Income, and Total Shareholder Return

Net Income ($M) and ROE (%)



Revenue Margin ($B)



*Includes extraordinary gain associated with the sale of OPG head office

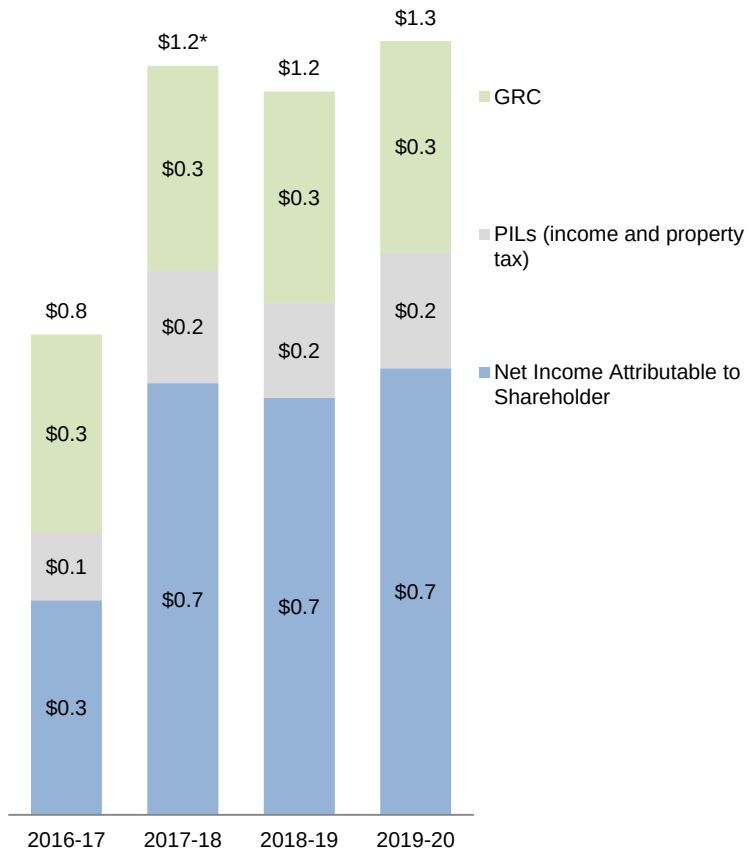
1. Actuals

1. Business Plan Overview

d) Provincial Fiscal Impacts: Shareholder Return and Payments-in-Lieu of Taxes

- Total fiscal revenue impacts to the Province, including net income return to the shareholder and payments-in-lieu of taxes, averages ~$1B over the period
  - Provincial revenues from OPG are dedicated to servicing and paying down stranded debt and the investment cost of the Province acquiring the equity in OPG.
- ~~Total r~~Return to the shareholder improves ~~over the period largely~~ due to changes in net income, which OPG attributes to:
  - Assumed OEB rate outcomes
  - Completion of the first Darlington unit refurbishment
  - Further cost efficiencies
- Net income is consolidated by the Province as Revenue from Government Business Enterprises (GBEs)
- Income tax PILs, Gross Revenue Charges (GRC) and property tax PILs paid to ~~are consolidated by~~ the Ontario Electricity Financial Corporation (OEFC) to help service and pay down stranded debt are consolidated in Public Accounts under Taxation Revenue
- OPG also pays a portion of the Gross Revenue Charge (GRC) ~~and Property Taxes to the OEFC to the Province's Consolidated Revenue Fund~~

Total Fiscal Revenues ~~Shareholder Return~~ ($B)



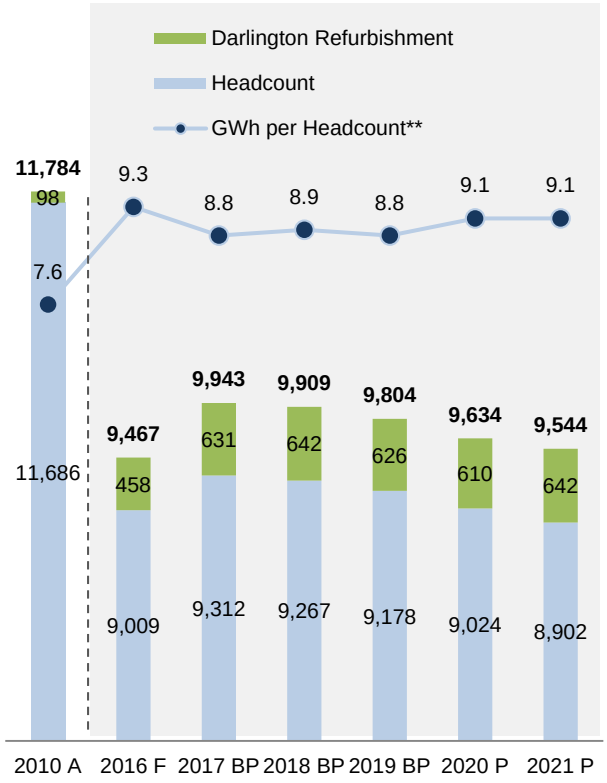
*Includes gain associated with the sale of OPG head office

1. Business Plan Overview

e) Business Transformation Initiative & Labour Costs

- As part of a company-wide business transformation, OPG has saved over $1B in costs from January 2011 to December 2016
  - Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3
- However, OPG is ramping up recruitment between 2016 and 2017 to fill key vacancies in certain areas (particularly in the Nuclear business unit) due to high levels of attrition from employee demographics, as well as continued Pickering operations beyond 2020
  - OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021
- In addition, to date OPG has hired ~60 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015
  - Intention is to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations

Ongoing Operations Regular Headcount and Productivity



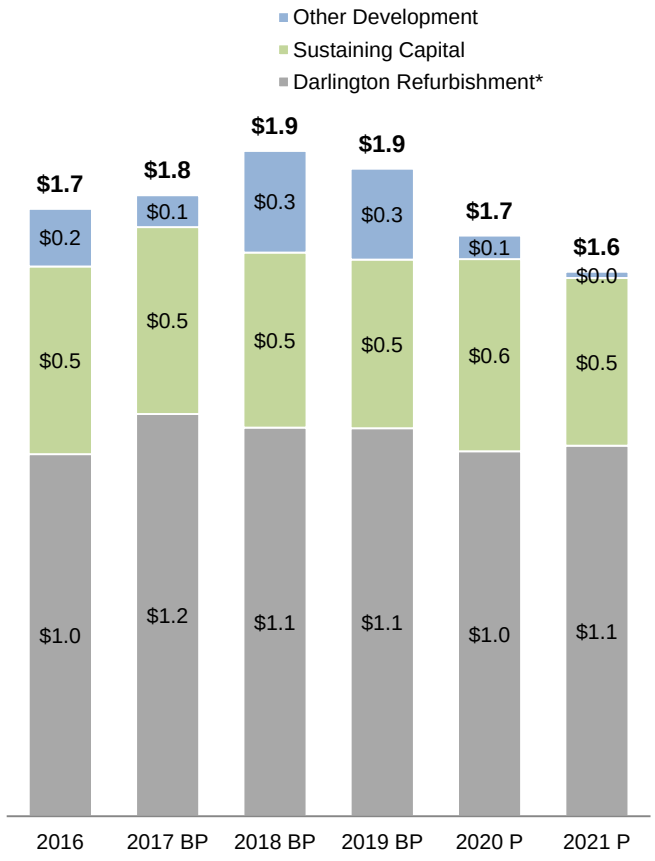
**Production is normalized by adding back hydroelectric surplus baseload generation losses and, in 2017- 2021, the lower production due to the Darlington refurbishment outages

1. Business Plan Overview

f) Operating Highlights - Projects and Capital Expenditures

- OPG continues to focus on delivery of its major projects over the plan period, including:
  - **Darlington Refurbishment**: Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, assuming necessary concurrence from the Province is obtained
  - **Sustaining Capital:** Expenditures average $570M, including:
    - Nuclear expenditures unrelated to refurbishment at Darlington and costs for continued operation of Pickering
    - Regulated hydro expenditures including upgrades at Sir Adam Beck and upgrades to DeCew II
    - Lower Mattagami upgrades in 2018 and 2019
  - **Other Developments:** Investments in current and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility

Capital Expenditure Estimates ($B)



*Includes expenditures budgeted by Support Services

2. Other Considerations

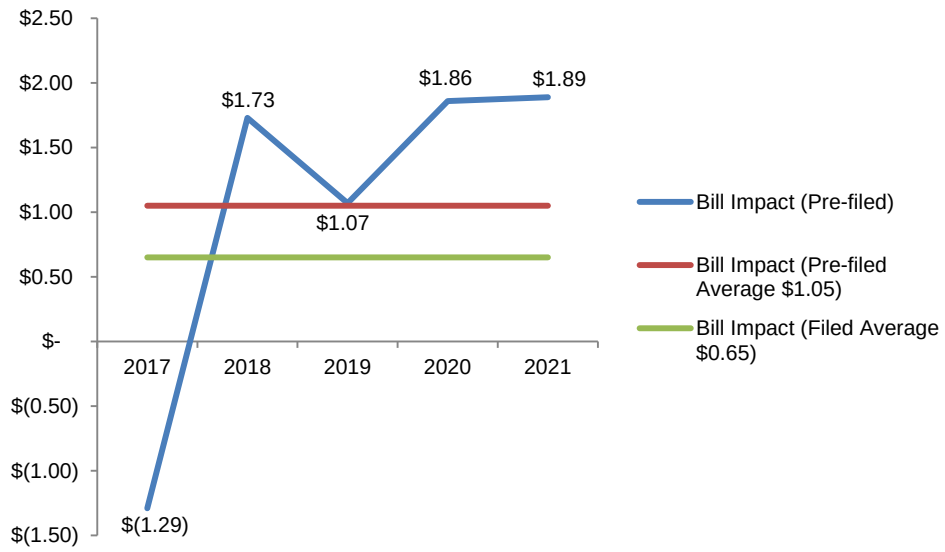
Rate Application

- OPG's 2017-19 Business Plan is dependent on the outcome of its rate filing with the OEB for the five-year period from 2017-2021
- Oral hearings began February 21, 2017 with a decision expected in Q3 2017
- OPG's 2017-19 Business Plan assumes new rates are effective January 1, 2017
  - The OEB setting a later effective date would negatively impact OPG's 2017-18 fiscal year net income by ~$50-60M per month of delay*

Rate-Smoothing Proposal:

- On March 2, 2017 the Province filed an amendment to O.Reg.53/05, which enables OPG to smooth its rates based on OPG's total bill impact, rather than on the basis of nuclear rates only
- On March 8, 2017 OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year

Comparison of Annual Bill Impact ($/Month per year)



*Forecasted in May 2016

2. Other Considerations

Sales

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

2. Other Considerations

Special Status for OPG to Approve International Travel

- On January 24, 2017, OPG's President and CEO wrote to the Deputy Minister requesting authority for OPG to approve international travel for its employees
  - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business
- OPG has indicated that international travel is integral to the safe and prudent operation of its business and that special status will enable efficient decision-making while lowering travel costs
  - OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for its pension fund and nuclear funds
  - OPG requires a high level of international business travel at approximately 90-100 trips annually, while Darlington accounts for 45% and is expected to see increases
  - OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date
  - OPG believes the inability to make timely commitments on events and meetings impacts employee engagement as well as its international relationships and reputation
- OPG has asked that this application be included with the Ministry's submission to TB/MBC seeking concurrence with OPG's 2017-19 business plan

Appendix

2016 Year-End Financials

OPG Balance Sheet as at Dec 31 $B	2016
Assets	
Cash and cash equivalents	0.2
Available-for-sale securities	0.2
Receivables from related parties	0.4
Nuclear fixed asset removal and nuclear waste management funds	0.02
Other current assets	0.9
Total current assets	**$1.7**
Net property, plant and equipment	**$20.0**
Net intangible assets	**$0.1**
Nuclear fixed asset removal and nuclear waste management funds	16.0
Regulatory assets	5.9
Other long-term assets	0.7
Other assets	**$22.5**
Total assets	**$44.4**
Liabilities	
Accounts payable and accrued charges	1.2
Short-term debt and long-term debt due within one year	1.1
Income taxes payable and other current liabilities	0.1
Total current liabilities	**$2.4**
Long-term debt	4.4
Fixed asset removal and nuclear waste management liabilities	19.5
Pension liabilities	3.0
Other post-employment benefit liabilities	2.9
Other liabilities	1.7
	$31.5
Total liabilities	**$33.9**
Equity	
Equity attributable to the Shareholder	10.4
Equity attributable to non-controlling interest	0.1
Total equity	**$10.5**
Total liabilities and equity	**$44.4**

OPG Income Statement Year Ended Dec 31 $B	2016
Revenue	$5.7
Fuel expense	0.7
Gross margin	**$4.9**
Operations, maintenance and administration	2.7
Depreciation and amortization	1.3
Accretion on fixed asset removal and nuclear waste management liabilities	0.9
Earnings on nuclear fixed asset removal and nuclear waste management funds	-0.7
Other expenses	0.02
Total expenses	**$4.2**
Income before other (gains) losses, interest and income taxes	**$0.7**
Other (gains) losses	-0.02
Income before interest and income taxes	**$0.7**
Net interest expense	0.1
Income before income taxes	**$0.6**
Income tax expense	0.2
Net income	**$0.5**
Net income attributable to the Shareholder	**$0.4**
Net income attributable to non-controlling interest	**$0.02**

Mr. Bernard Lord
Chair
Ontario Power Generation
1900-700 University Avenue
Toronto ON M5G 1X6

Dear Mr. Lord,

Thank you for your submission of Ontario Power Generation's (OPG) 2017-2019 Business Plan ("the Plan"). We have reviewed the Plan and find it to be consistent with our government's expectations.

I support the operational and financial targets set by OPG in its business plan. We recognize the substantial cost reductions that OPG has recently achieved and expect OPG to work closely with the Province to fully realize the additional efficiencies incorporated in the Plan in a manner that is consistent with financial targets and the continued safe and environmentally responsible operation of OPG's facilities.

We commend OPG on its successful start to the Darlington Refurbishment Project, a key objective of Ontario's 2013 Long-Term Energy Plan (2013 LTEP). As a priority project for the government, I expect that OPG will continue to focus on delivering the project as per the schedule and budget contained in the Release Quality Estimate approved by the OPG Board and by the government. I also expect OPG to continue to minimize project risks consistent with the nuclear refurbishment principles set out in the 2013 LTEP, and seek concurrence prior to commencing subsequent unit refurbishments after Unit 2 is successfully returned to service.

We continue to support the planned operation of Pickering units up to 2024 as the station's output will provide reliable, cost-effective and emission-free electricity supply during the Darlington and initial Bruce refurbishments. I expect OPG to seek concurrence to proceed with ongoing Pickering operation after the necessary regulatory approvals are complete.

I understand that the recently approved Ontario Nuclear Funds Agreement (ONFA) Reference Plan has resulted in a reduction of the estimated liabilities ~~costs to consumers~~ for future decommissioning and long-term management of waste from Ontario's nuclear fleet. ~~plants. In addition, the segregated nuclear funds set aside under ONFA have reached fully funded status.~~ With many decades of nuclear generation in the Province's future, we expect OPG to continue managing its decommissioning and waste management obligations [and related segregated funds] in a prudent manner~~, the decision to fund these costs now provides security for future generations of Ontarians~~.

I appreciate the efforts of OPG staff, management and the Board of Directors to date as we worked to develop a plan to refinance the Global Adjustment (GA). Refinancing the GA would provide significant and immediate rate relief by spreading the cost of electricity investments over the expected lifecycle of the infrastructure that has been built. OPG will be instrumental to the success of this initiative and we plan to introduce legislation that would, if passed, enable OPG to work with the Independent Electricity System Operator (IESO) to implement this plan.

Commented [RK1]: Recommended not to use this wording, particularly also using the fully-funded wording that follows.

Under ONFA, for prudence, the Province required OPG to accelerate contributions to the funds, in advance of collecting the amounts from ratepayers. Even if the funds are currently estimated to be fully-funded, OPG (and the Province as Shareholder) still needs to recover its nuclear liabilities costs in rates.

Commented [RK2]: If wording is retained, should be reworded.

"As a result of the lower estimated liabilities and recent financial market performance, the segregated nuclear funds set aside under ONFA are currently estimated to be fully funded."

Commented [FC3R2]: Should be noted that the funds are fully funded today but changes in market conditions could put the funds in a temporary deficit position in a very short period.

I expect OPG to continue to keep the government informed with regard to the company's key ongoing and emerging initiatives and progress in achieving its financial and operational performance commitments. As OPG's performance directly impacts Ontario's fiscal plan, we note the importance of achieving or exceeding OPG's financial performance commitments.

This letter constitutes our concurrence with OPG's Board approved 2017-2019 Business Plan as provided for under the Memorandum of Agreement between OPG and the Shareholder dated July 17, 2015.

Sincerely,

Glenn Thibeault
Minister of Energy

c: Jeff Lyash, President and Chief Executive Officer, OPG
Ali Ghiassi, Chief of Staff, Ministry of Finance
Scott Thompson, Deputy Minister, Ministry of Finance
Serge Imbrogno, Deputy Minister, Ministry of Energy

Commented [RK4]: Only add in if Energy CoS is included.

From:	John Kim
To:	Bruno Amara; Adam Prokop
Subject:	FW: OPG Trust Financing
Date:	Friday, March 10, 2017 3:15:15 PM
Attachments:	OPG GA Deferral Trust (2017 03 09 v4).docx

Fyi, if we can merge ours to this.

From: Francisco Chinchon
Sent: Friday, March 10, 2017 3:14 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: OPG Trust Financing

Hi Ron, John,

Arie and Wentao put together a note that explains what we need to do and the challenges/questions we will probably face. Is intended to map the road, we can expand as we have more clarity.

All comments are welcome.

Francisco

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Sent: Friday, March 10, 2017 2:14 PM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi looks good to us, just a few edits.

Thanks,
Arie

From: Francisco Chinchon
Sent: Friday, March 10, 2017 1:41 PM
To: Arie Jarczyn <Arie.Jarczyn@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Looks good. I added a bit, please review.

From: Arie Jarczyn
Sent: Friday, March 10, 2017 9:56 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: OPG Trust Financing

Hi Francisco,

Please find for review a draft that Darren, Wentao and I worked on, on the mechanics on funding the OPG Trust

Saved here

Arie Jarczyn
Senior Advisor
Strategic Investment and Finance Branch
Ontario Financing Authority
Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

OPG Trust Financing

Issue

The Province is working with OPG to establish a Trust to finance the global adjustment (GA) payment deferral as part of the Province's recent plan to reduce ratepayer electricity bills.

Context

- The Province and OPG seek to create a Trust to handle the GA deferrals as part of the Province's recent rate mitigation proposal.

- Ministry of Energy's (ENERGY) materials note that significant amount of debt to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would likely be downgraded.

- As a result, the capital structure of the Trust would be a combination of debt and equity.

- The equity portion of funding for the Trust is expected to come from the Province through capital contributions / equity injections into OPG, which would then be loaned to the Trust.

    - Under the terms necessary for OPG to consolidate the Trust, the Province or its agencies may not fund more than 50 per cent of the Trust.

    - ENERGY's materials suggest that about 44 per cent be funded via equity injection from the Province / Ontario Electricity Financial Corporation (OEFC).

Mechanics of Financing Equity Portion of OPG Trust

- The mechanics of a capital contribution into OPG could follow the precedent previously completed by the Province in making a capital contribution into Hydro One prior to its initial public offering.

1. The Province would need to create an "Operating Asset" line which would carry the amount of the capital contribution. The creation of this line and the appropriation would require Treasury Board approval.

    - The Operating Asset would either be categorized as a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions would be made outside of legislation. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. The creation of the Operating Asset would need to be included in the Province's tabling of Estimates in the Legislature (tabled following the release of the Provincial Budget). If the Operating Asset is not included in the Estimates, the Province would need to table Supplementary Estimates in the Legislature.

3. The Province would also need to seek approval, through Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would either require the implementing Ministry to find expense offsets, or tabling of Supplementary Estimates. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive shares in the Trust in return.

    - Note that as with the Hydro One capital contribution, this capital contribution represents a balance sheet movement and would not create an upfront fiscal impact to the Province (exchange of cash for shares – both assets).

    - However, there is likely to be on-going carrying costs for the Province associated with any borrowing that the Province will be required to undertake to fund the capital contribution. In the absence of obtaining incremental earnings on the equity invested in OPG, the carrying cost would generate a negative fiscal impact.

Staff Comments/Next Steps

- A key issue that will need to be addressed going forward is which Provincial entity or which Ministry would provide the capital contribution: OEFC, Energy, or Finance.
    - The preceding analysis assumes that a Ministry, and not OEFC, would make the contribution, given that the Province, and not OEFC, owns 100 per cent of the common shares of OPG.
    - Energy provided the capital contribution to Hydro One before the November 2015 IPO, and the Minister of Energy is the shareholder of OPG on behalf of the Province.

- Energy has indicated in the past that it would prefer Public Accounts reporting to remain consistent with historic practice, which is that OPG reports under the Ministry of Finance.
    - The Hydro One initial public offering experience revealed the historic practice is technically a mistake as the Minister of Energy is the shareholder.
    - Given there is no fiscal impact and the Province's Financial Statements show results across Ministries OPCD agreed not to reclassify the investments to Energy but also did not allow the additional equity acquired in Hydro One to be booked by Finance.
    - Staff expects OPCD to have the same view with respect to the proposed capital contribution into OPG.

- The Province would also need to decide on the timing of the capital contribution.

- Assuming that the Trust would seek to maintain the target debt to equity ratio, the Province would need to determine when to make a contribution into the Trust (i.e. monthly, quarterly, annually?)
- It should also be noted that the timing of the contribution (i.e. whether it is at the beginning, middle, or end of a fiscal year) would also have an impact on the carrying costs for the Province should it decide to borrow to finance the contribution (i.e., a contribution earlier in the fiscal year would create higher interest payments for the Province).
- From a financial perspective there are several options to address timing and carrying costs including the issuance of convertible debt in favour of the Province. Staff would need to engage in discussions with OPCD and OPG to assess the financial and reporting impact of the different options.

Corporate and Electricity Finance Division
March 10, 2017

From: John Kim
To: Shajee Kathirgamanathan
Cc: Bruno Amara
Subject: FW: OPG Trust Financing
Date: Thursday, April 06, 2017 8:09:11 AM
Attachments: OPG GA Deferral Trust (2017 03 09 v4).docx

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Corporate and Electricity Finance Division
March 10, 2017

From:	Carlos Yep
To:	James Devine; John Kim; Ken Kandeepan; John Psinas; "Kaitlin.Montgomery@ontario.ca"; Adam Prokop; Bruno Amara; George Sakura
Cc:	Mike Manning
Subject:	FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Tuesday, April 25, 2017 11:47:13 AM
Attachments:	Capital Injection Discussion (25-April-17).pdf

Attached are some initial comments from TD.

We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]
Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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AVIS : Message confidentiel dont le contenu peut être privilégié. Utilisation/divulgation interdites sans permission. Si reçu par erreur, prière d'aller au www.td.com/francais/avis_juridique pour des instructions.

TD Securities

A Confidential Presentation

Capital Injection Discussion

April 25, 2017

Presented By

Introduction

- The Province of Ontario (the "Province") is considering alternatives to fund its capital injection (the "Capital Injection") into Ontario Power Generation Inc. ("OPG"), which represents 44% of the Global Adjustment deferral financing requirement
- When evaluating the Province's alternatives, TD Securities Inc. ("TD Securities") understands that the Province's objectives are:
  1. **Equity Treatment:** Ensuring that the Capital Injection is treated as equity so as to mitigate the credit rating impact to OPG associated with 100% consolidation of the Special Purpose Vehicle ("SPV")/Trust
  2. **Managing Cash Flows for Interest Payments:** Timing, size, and priority of cash flows to repay interest used to fund the Capital Injection
  3. **Managing Cash Flows for Debt Repayments**: Timing, size, and priority of cash flows to repay the maturing principal for debt used to fund the Capital Injection
- In addition, simplicity is preferred to a complex structure

Capital Injection Options

	Common Equity	Preferred Equity	Fixed-to-Floating Sub. Notes, Convertible to Preferred Equity[1]	Mandatory Convertible Preferred Equity
Characteristics				
Instrument	▪ Equity instrument with no fixed dividend	▪ Preferred equity instrument with a fixed, floating, or resettable dividend	▪ A fixed income instrument with a fixed rate, which automatically converts into floating rate preferred shares, subject to an issuer cash redemption feature	▪ A preferred equity instrument that pays fixed, floating, or resettable dividends, which automatically converts into common equity
Capital Structure Ranking	▪ Lowest priority	▪ Priority to common equity	▪ Until converted, usually ranks higher than preferred equity, but lower than other fixed income instruments	▪ Priority to common equity until converted
OPG Tax Treatment	▪ Dividends are not tax-deductible	▪ Dividends are not tax-deductible	▪ Initial interest payments tax-deductible	▪ Dividends are not tax-deductible
DBRS Equity Treatment Methodology	▪ Considered equity	▪ Allocated an equity percentage (100% to 0%) based on (1) permanence, (2) subordination, and (3) legal implications (default considerations) ▪ Any less "equity-like" features reduce equity weighting allocated to the instrument ▪ Hybrid instruments[2] can receive 100% equity treatment, but limited to a quantity proportionate to 20% of common equity ▪ 100% of preferred dividends or interest payments are subtracted from cash flow credit metrics, regardless of equity treatment ▪ Cannot have a investor cash redemption provision to be considered equity		
S&P Equity Treatment Methodology	▪ Considered equity	▪ Hybrids placed into one of three categories based on equity content for purposes of calculating credit metrics: • High: 100% equity; Intermediate: 50% equity, 50% debt; Minimal: 0% equity ▪ Key considerations are: (1) ongoing payments, (2) permanence, and (3) subordination / credit default cushion ▪ Generally, equity content treatment applies to hybrids in proportions equal to or below 15% of total capitalization ▪ Same equity treatment methodology is applied in calculating cash flow credit metrics ▪ Must have at least 20 years or more remaining to the effective maturity to be given any equity content, subject to other features		
Objectives				
1. Equity Treatment	▪ Considered equity	▪ Typically given 50% and 100% equity treatment by S&P and DBRS, respectively, subject to quantity limits	▪ Recent hybrid sub-debt offerings given intermediate equity content by S&P ▪ Quantity limited by DBRS & S&P	▪ Typically given 100% equity treatment, depending on conversion length ▪ Quantity limited by DBRS & S&P
2. Cash Flows for Interest Payments	▪ By way of dividends ▪ **Dividend Timing:** flexible (monthly, quarterly, yearly) ▪ **Dividend Size:** flexible ▪ **Dividend Priority:** can be deferred indefinitely	▪ By way of preferred dividends ▪ **Dividend Timing:** fixed ▪ **Dividend Rate:** flexible at initiation ▪ **Dividend Priority:** can be deferred indefinitely, but prioritized above common dividends • Cumulative or non-cumulative	▪ By way of fixed interest payments until converted ▪ **Interest Timing:** flexible at initiation ▪ **Interest Rate:** flexible at initiation ▪ **Interest Priority:** can be deferred indefinitely, but prioritized above common dividends	▪ By way of preferred dividends until converted ▪ **Dividend Timing:** flexible at initiation ▪ **Dividend Rate:** flexible at initiation ▪ **Dividend Priority:** can be deferred indefinitely, but prioritized above common dividends until converted
3. Cash Flows for Debt Principal Payments	▪ Special dividends can be utilized to match timing of principal repayments	▪ Little incentive for principal repayment unless other features are added	▪ Interest rate step-up incentivizes redemption by the issuer at conversion, but may affect equity treatment	▪ Once converted, special dividends can be utilized to match timing of principal repayments

(1) Also referred to as U.S. Hybrids, with recent examples including TransCanada's US$1.25B offering in February 2017 and Emera's US$1.2B offering in June 2016
(2) Instruments that have both debt-like and equity-like features

Discussion

- Common equity provides the most flexibility to OPG with respect to:
  - Greater certainty in attaining equity treatment by credit rating agencies
  - Cash flow timing in the event that SPV/Trust payments are delayed
- Hybrid instruments(1) are an alternative in satisfying the Province's Capital Injection into OPG
  - Companies usually issue hybrids for specific purposes related to access to capital markets, credit rating, equity dilution, and tax considerations
- Two considerations required for OPG to consolidate the SPV/Trust that may directly affect the timing and amount of cash available to pay the Province are:
  - **Decision Making** – OPG needs to make funding / dividend decisions independent of the Province
  - **Business Risk** – OPG needs to demonstrate that it has variability of returns
- The two above considerations may result in cash not being distributed from the SPV/Trust to OPG, such that OPG cannot pay a dividend or special dividend to the Province
- Additionally, the dividend / interest rate on the Province's Capital Injection relative to the interest rate of the debt issued by the Province and the debt issued to OPG by the SPV/Trust determines where the excess cash will accumulate

(1) Instruments that have both debt-like and equity-like features, including the preferred equity, fixed-to-floating sub. notes, convertible to preferred equity, and mandatory convertible preferred equity discussed on page 3

Discussion (cont'd)

- Hybrid instruments(1) can be used to increase the Province's certainty of cash flows to cover the interest and principal payments on the underlying debt the Province issues
  - Subordination is less of a concern as the Province owns 100% of OPG
  - Direct trade-off exists between adding debt-like features to the hybrid instruments and reducing their degree of equity treatment for OPG by credit rating agencies
  - However, the instruments have to demonstrate some degree of permanency to warrant equity treatment and the total amount that receive equity treatment is limited by credit rating agencies
- At its simplest, the Capital Injection could take the form of common shares to the Province
  - Normal dividends set by the OPG Board, which the Province has the ability to direct, to equal the interest payments on the underlying debt
  - Repayment of principal through special dividends as cash becomes available at OPG after receiving distributions from the SPV/Trust
- Investing at market value as opposed to book value is more of a concern when allocating value between new and existing shareholders, which in not applicable in this case

The Province should have a detailed discussion with OPG and its auditors, and ultimately, the credit rating agencies when evaluating its alternatives in the context of its objectives

(1) Instruments that have both debt-like and equity-like features, including the preferred equity, fixed-to-floating sub. notes, convertible to preferred equity, and mandatory convertible preferred equity discussed on page 3

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From: John Kim
To: Bruno Amara; Salman Qadir; Adam Prokop; Shajee Kathirgamanathan
Cc: Gavin He
Subject: FW: Ontario Fair Hydro Plan
Date: Wednesday, April 26, 2017 4:47:50 PM
Attachments: Fair Hydro Plan Act (April 26 2017) Consultation v4.docx

---

Fyi.

-----Original Message-----
From: Whitfield, Tobias P. (MOF) [mailto:Tobias.Whitfield@ontario.ca]
Sent: Wednesday, April 26, 2017 4:23 PM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Malle Hanslep (MOF) <Malle.Hanslep@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Michael Waterston (MOF) <Michael.Waterston@ontario.ca>
Subject: Fw: Ontario Fair Hydro Plan

Please see attached the latest draft of the legislation. My understanding is that there is only room to make small tweaks based on the timeline right now.

Please note that Energy has not removed the exemption from section 28 in this draft. I am not sure if there has been any further discussion on that subject, but I think that if we want to push back on this issue it needs to be communicated as soon as possible.

Also, there is new language around the guarantee, but it does not contemplate the current plan to have both Ministers sign the guarantee. I have let Energy Legal know that this would make sense to change.

Best
Toby

Tobias Whitfield
Counsel, Legal Services Branch
Ministry of Finance
777 Bay Street, 11th Floor
Toronto, ON, M5G 2C8
tobias.whitfield@ontario.ca
Phone: 416-325-1456
From: Rehob, James (ENERGY) <James.Rehob@ontario.ca>
Sent: Wednesday, April 26, 2017 3:19 PM
To: Whitfield, Tobias P. (MOF)
Subject: FW: Ontario Fair Hydro Plan

Confidential/Solicitor & Client Privileged

April 26, 2017

Hi, Toby. I am pleased to attach the most recent version of the draft legislation pertaining to the electricity rate reductions and intergenerational cost transfer.

Thanks for your help on all of this, and note that this version does not include amendments to EA ss.89 and 90 (PILS amendments). Those discussions are ongoing between MOF policy, OPG/Tory's and ENERGY is awaiting those discussions to close before finalizing the legislation on these matters.

Best regards,

James

James P. H. Rehob
Senior Counsel
Ministry of the Attorney General
Legal Services Branch
MAG Civil Law Division
Ministry of Energy, Ministry of Economic Development and Growth, Ministry of Research, Innovation and Science, Ministry of Infrastructure, Accessibility Directorate of Ontario
56 Wellesley Street West
Toronto, ON M7A 2E7
Tel: 416-325-6676
Fax: 416-325-1781
james.rehob@ontario.ca<mailto:james.rehob@ontario.ca>

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Version 4

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A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

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A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

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Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1] These commitments can only be achieved if costs are shared fairly among consumers, today and in the future.

Electricity rates have risen for two key reasons. First, decades of under-investment in the electricity system resulted in the need to invest more than $50 billion in generation, transmission and distribution assets to ensure the system is clean and reliable. Second, the decision to eliminate Ontario's use of coal and produce clean, renewable power has created additional costs.

The actions taken to achieve a clean, modern and reliable electricity system have resulted in significant costs to consumers today. The burden of financing these system improvements and funding key programs has unfairly fallen almost entirely on the shoulders of today's consumers.

The Government of Ontario is committed to ensuring that the costs of financing these investments and the associated charges to consumers are allocated fairly among present and future generations of consumers.

Recognizing that the electricity infrastructure that has been built and the policy decisions that have been made will create benefits for years to come, costs should be allocated fairly over time, so that consumers in the future pay their fair share for the benefits that they receive from the investments already made.

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")

"clean energy benefits" means the value of the benefits determined to be derived by or accruing to the specified consumers as a result of the clean energy initiative, including as a result of clean energy costs; ("French")

"clean energy costs" means the value of the costs allocated to specified consumers as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated amounts to be paid or reflected by the IESO in adjustments made under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management,

(iii) energy storage,

(iv) energy efficiency,

(v) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(vi) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

(b) such other estimated costs as may be prescribed; ("French")

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"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[2] means,

(a) a licensed distributor,

(b) a licensed retailer,

(c) the IESO in circumstances where the IESO directly invoices a specified consumer, or

(d) such other person as may be prescribed; ("French")

"fair allocation amount" means the amount determined in under section 15xx;

"financing entity" means an entity established or caused to be established under subsection 17xx (3); ("French")

"Financial Services Manager" means the Financial Services Manager appointed under section 13xx; ("French")

"Financing Plan" means the plan prepared under section 16xx, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means,

(a) a payment obligation incurred in connection with the transfer of a regulatory asset or the refinancing of an existing funding obligation, or

(b) a payment obligation that meets such other criteria as may be prescribed; ("French")

[2] FLS - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means the amount determined under section 20xx; ("French")

"investment asset" means the rights and interests described in section 22xx; ("French")

"investment interest owner" means a financing entity that has acquired and holds an investment interest; ("French")

"investment interest" means,

(a) an ownership interest in the investment asset, and

(b) in circumstances where the ownership interest is transferred, the rights and benefits specified in the agreement under which the interest is transferred; ("French")

"invoice amount" means, in respect of an invoice period, the sum of the amounts set out in subsection (2.1) in relation to the provision of electricity in Ontario to a specified consumer; ("French")

"invoice period" means the period in respect of which an invoice amount applies, as specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"Ontario Power Generation Inc." means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998; ("Ontario Power Generation Inc.")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

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(a) the period beginning on May 1, 2017 and ending on October 31, 2017, and

(b) during the period beginning on November 1, 2017 and ending on April 30, 2047,

(i) every six-month period following the period mentioned in clause (a); or

(ii) any period shorter than six months, as may be prescribed; ("French")

"refinancing" means, subject to the regulations, a redemption, repayment or repurchase of a funding obligation; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right and interest established under section 21xx; ("French")

"specified consumer" means,

(a) a person who has an account with an electricity vendor for the supply of electricity in Ontario and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

"transfer" means [TBD]; ("French")

"unit sub-metering" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("activités liées aux compteurs divisionnaires d'unité")

"unit sub-meter provider" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("fournisseur de compteurs divisionnaires d'unité")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

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2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

Invoice amount

(2.1) Subject to the regulations, the invoice amount for a specified consumer in respect of an invoice period includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following amounts in respect of the invoice period:

    i. The commodity price of the electricity used.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998* and in effect on April 30, 2017.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

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iv. The amount of any harmonized sales tax payable by the consumer under Part IX of the *Excise Tax Act* (Canada) in respect of the amounts mentioned in subparagraphs i, ii and iii;

v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO or other prescribed entity, such amounts as may be prescribed in respect of the invoice period. ("French")

Same, exclusions

(2.2) Subject to the regulations, an invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices in respect of previous invoice periods.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

   i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

   ii. A charge labelled as a "specific service charge" or "retail service charge".

   iii. A rate rider [of the prescribed type or class].

5. Any other prescribed amounts.

Effect of invalidity, etc.[3]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if one or more provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

[3] FLS: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect the validity or enforceability of a funding obligation incurred under this Act before the day that the provision is held to be invalid or ceases to be in effect, or any rights or obligations associated with the funding obligation.

Purpose

3xx. (1) The purposes of this Act are,[4]

(a) to ensure that clean energy costs are fairly allocated among present and future specified consumers and reflect the fair allocation; and

(b) to recognize that clean energy benefits have accrued and will accrue over time and will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of amounts in respect of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the clean energy adjustment determined under this Act or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding the performance of IESO or electricity vendors under this Act or similar transactions.

[4] FLS: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Guarantee, indemnification

(4) The Lieutenant Governor in Council may by order,

(a) authorize the Minister of Finance, on behalf of the Province,

(i) to agree to guarantee or indemnify any debts, obligations, securities or undertakings associated with an investment interest, and

(ii) to determine terms and conditions and the amount on which the guarantee or indemnity will be given;

(b) impose terms and conditions, as it considers advisable, on which the Minister of Finance may, on behalf of the Province, agree to guarantee or indemnify as described in subclause (a) (ii); and

(c) specify a maximum liability for the guarantee or indemnity.

PART II
FAIR ADJUSTMENT OF ELECTRICITY RATES

Definitions

6xx. In this Part,

"effective date" means the date determined under section 6.5xx; ("French")

"RPP rate" means the rate determined by the Board under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*, which rate is commonly referred to as the Regulated Price Plan"; ("French")

"specified RPP consumer" means a specified consumer who meets the following criteria:

1. The consumer is a member of the class of consumers prescribed by the regulations made under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act.

2. The consumer is subject to the RPP rate. ("French")

Specified RPP consumer, first fair adjustment

6.1xx (1) The rate for electricity payable by a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate required for a specified RPP consumer who meets the prescribed criteria to receive a monthly invoice

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amount that is 25 per cent lower than the monthly invoice amount for that consumer under the comparison rate described in subsection (2).

Comparison rate

(2) The comparison rate is the rate that would be effective May 1, 2017, determined by the Board solely using the method prescribed by the regulations made under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*.

Same

(3) For the purposes of subsection (2), the applicable method is the method on the day this section comes into force.

Specified consumers (non-RPP), first fair adjustment

6.2xx The rate for electricity payable by a specified consumer who is not a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate that would be necessary in order for [the monthly global adjustment rate] in respect of a specified consumer who is not a specified RPP consumer (RPP) and who meets the prescribed criteria to be reduced by the same amount as the difference between the comparison rate referred to in subsection 6.1xx (2) and the rate determined under subsection 6.1xx (1).

Determination by Board

6.3xx The Board shall determine the rates mentioned in sections 6.1xx and 6.2xx no later than seven business days after the day this section receives Royal Assent.

Implementation of rates

6.4xx Each electricity vendor, [specified consumer who provides electricity to a sub-meter customer and unit sub-meter provider who provides unit sub-metering for a specified consumer] shall, no later than seven business days after the day on which the Board determines the rates under section 6.3xx, adapt is billing practices and invoices to reflect the new rates.

Effective date

6.5xx The rates determined under section 6.3xx are effective on the earlier of the following days:

1. The first day of the month immediately following the last day of the seven-day period referred to in section 6.4xx.

2. July 1, 2017.

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Transition

6.6xx (1) This section applies if an electricity vendor, specified consumer or unit sub-meter provider is unable to comply with section 6.4xx for one of the following reasons:

1. There are fewer than seven days between the day of the Board's determination of rates under section 6.3xx and the effective date.

2. Technical or operational reasons.

Same

(2) In the circumstances described in subsection (1), the electricity vendor, specified consumer or unit sub-meter provider shall,

(a) adapt its invoices as soon as possible and, in any event, no later than August 1, 2017; and

(b) ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate determined by the Board receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Subsequent fair adjustments

7xx. The Lieutenant Governor in Council may make regulations prescribing the methodology to be applied by the Board to determine rates for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

Sub-meter customers

7.1xx A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the applicable rate determined under this Part.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay

8xx. (1) Upon receipt of an invoice that includes an amount in respect of the clean energy adjustment, a specified consumer shall pay the amount to the electricity vendor, as agent of the investment interest owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

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Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment was determined in a manner that was inconsistent with this Act; and

(b) whether the amount payable in respect of the clean energy adjustment relates to funding obligations that were incurred in a manner that was not in material conformity with the Financing Plan.

Indebtedness of specified consumer

(4) An unpaid amount that is required to be paid by a specified consumer under this section constitutes indebtedness of the specified consumer to each investment interest owner to the extent of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer.

Recovery from sub-meter consumers

(6) A specified consumer who provides electricity to a sub-meter customer may recover amounts in respect of the clean energy adjustment payable under this section from each sub-meter customer on a pro rata basis.

Irrevocability of amount

9xx. (1) An amount in respect of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness resulting from the clean energy adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a clerical, typographical or calculation-related error by the electricity vendor.

Determination of clean energy adjustment
Financial Services Manager to determine

10xx. (1) The Financial Services Manager shall determine the clean energy adjustment payable by all specified consumers in respect of each month in a reference period by adding the estimated finance amount in respect of the reference period to the true up amount in respect of the reference period.

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Estimated finance amount, true up amount

(2) The estimated finance amount and the true up amount shall be determined in accordance with the regulations.

Regulations re true up amount

(3) The regulations under subsection (2) shall have regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

    i. differences between the estimated and actual finance amount for the immediately preceding reference period,

    ii. differences between amounts invoiced and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

    ii. variations in billings due to variations in electricity consumption.

Financial Services Manager to notify Board

(4) The Financial Services Manager shall, in accordance with the regulations, notify the Board of the clean energy adjustment and such other information related to the determination of the clean energy adjustment as may be prescribed.

Board to determine rates

(5) The Board shall, in accordance with the regulations, determine the rate at which specified consumers are invoiced to recover the clean energy adjustment in respect of the reference period.

IESO to receive amounts

11xx. (2) The IESO shall, as an agent of the investment interest owners, receive amounts in respect of the clean energy adjustment paid to it from electricity vendors in accordance with the regulations and the market rules made under section 32 of the *Electricity Act, 1998*.

Account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of receiving those amounts:

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1. Amounts described in subsection 11xx (2).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8xx (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment interest owner, be received and held in trust by the IESO for the investment interest owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment interest owners in accordance with the regulations.

Electricity vendor to invoice specified consumers

12xx. (1) Each electricity vendor shall issue an invoice to each of its specified consumers for the amount payable by the consumer in respect of the clean energy adjustment, as determined by applying the rate set by the Board under subsection 10xx (2) and in accordance with the regulations.

Electricity vendor to report

(1.1) Each electricity vendor shall, in accordance with the regulations, promptly report to the IESO the total amount invoiced to its specified consumers in respect of the clean energy adjustment, the amount collected and such further information as may be prescribed.

Electricity vendor to collect

(2) Each electricity vendor shall, as agent of the investment interest owners, collect amounts in respect of the clean energy adjustment from specified consumers in accordance with the regulations.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges in respect of the same period.

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Held in trust

(4) Payments received by an electricity vendor from or on behalf of specified consumers shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be received by and held by each electricity vendor in trust for the benefit of the investment interest owners.

Remittance to IESO

(5) Each electricity vendor shall remit amounts described in subsection (5) to the IESO for the benefit of the investment interest owners in accordance with the regulations.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) Subject to subsection (2), Ontario Power Generation Inc. is appointed as the Financial Services Manager for the purposes of this Act.

Replacement

(2) The Minister may terminate an appointment of a Financial Services Manager and may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment interest owners.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section 10xx.

2. Providing information to the IESO in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

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FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period, having regard to the need to align that amount with the finance amount payable during the reference period, for the purpose of fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of the reference period.

Timing of calculation

(1.1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period before any funding obligation is incurred [by a financing entity during the reference period].

Amount

(1.2) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which, if this Act had not been enacted, the estimated clean energy costs and estimated clean energy benefits allocated to specified consumers in respect of the reference period would have exceeded the estimated amount of the adjustments provided for under section 25.33 of the *Electricity Act, 1998* and the regulations made under that provision that would have been borne by the specified consumers in respect of clean energy costs for the reference period.

2. A portion of the value of any fair adjustment that has been made under Part II in respect of any previous reference period.

Principles

(2) In calculating the estimated clean energy costs and estimated clean energy benefits to be allocated to specified consumers in respect of a reference period, the Financial Services Manager shall [comply with the regulations and] have regard to the following principles:

1. Clean energy costs allocated to specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits allocated to the specified consumers in respect of a reference period should be determined in accordance with the regulations.

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3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers in respect of each reference period.

    iii. The expected electricity consumption rates in respect of each reference period.

Method

(3) The Financial Services Manager shall calculate a fair allocation amount in accordance with such methods as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Notification to Minister

(4) The Financial Services Manager shall notify the Minister of the methods used to calculate the fair allocation amount and any changes to those methods.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred for the purposes of acquiring an investment interest in accordance with this Act.

Plan to be provided to Minister

(1.1) The Financial Services Manager shall provide the Financing Plan to the Minister.

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Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align with the estimated finance amount, as determined in accordance with the regulations, that would, subject to any refinancing, become due and payable during a reference period with the fair allocation amount determined in respect of the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment in respect of the reference period.

2. Incurrences should be implemented in a manner that, in the opinion of the Financial Services Manager, is reasonable, cost effective and that reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in amounts payable in respect of the clean energy adjustment in respect of the reference period unless,

(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount in respect of the reference period and the amount of the fair adjustment in respect of the reference period].

Other reports

(3.1) The Financial Services Manager shall submit to the Minister such reports and information as the Minister may require from time to time and shall, if required by the Minister to do so, examine, report and advise on any question relating to the Financing Plan.

Confidentiality

(5) The following are deemed to be records subject to clauses 18 (1) (c) and (d) of the *Freedom of Information and Protection of Privacy Act*:

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1. The Financing Plan.

2. Reports referred to in subsection (3.1).

3. Any other document that would reveal information contained in the Financing Plan or the reports.

Amendments to plan

(6) The Financial Services Manager may amend the Financing Plan at any time.

Same

(7) In the event that the Financing Plan is amended, any reference in this section to the Financing Plan is deemed to be a reference to the plan as amended.

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, subsection 17xx (5) applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish or cause to be established one or more financing entities that may incur funding obligations.

Prohibition

(3.1) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, Ontario Power Generation Inc., the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation or other agreement.

Effect of amendment to fair allocation amount

(4) Each funding obligation incurred and each transfer made by a financing entity is deemed to be consistent with the Financing Plan and [the fair allocation amount].

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PART V
THE REGULATORY ASSET

IESO funding shortfall

20xx. (1) The IESO funding shortfall for each month shall be determined in accordance with the regulations.

Electricity vendors to provide information

(2) Electricity vendors shall provide to IESO such information as IESO may reasonably request for the purposes of determining the IESO shortfall under subsection (1) and such further information as may be prescribed.

Same

(3) IESO may rely on information provided by electricity vendors for the purposes of the determination under subsection (1).

Variance account to be established, maintained

20.1xx (1) The IESO shall establish and maintain a variance account for the purposes of this section.

Recording in variance account

(2) The IESO shall record the following in the variance account:

1. The amount of the IESO funding shortfall for each month.

2. All payments received by the IESO resulting from the exercise of the right of recovery under section 21xx and any transfer under section 22xx.

3. Such other adjustments as may be prescribed.

Recording determinative

(3) Subject to any finding of [manifest error], a recording by the IESO in the variance account of the balance is, as of the time of the recording, determinative of the balance at the time.

Rights of investment interest owner

(4) No change made by IESO to the balance in the variance account shall, if the previous balance was relied upon by an investment interest owner in the context of a transfer under section 22x, affect the rights of the investment interest owner acquired under the transfer.

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Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the balance recorded in the variance account from specified consumers.

Limitation

(2) Despite subsection (1), the IESO shall not be entitled to collect all or part of the balance recorded in the variance account from specified consumers before May 1, 2022.

Board to set rates

(3) The Board shall, from time to time, determine and set rates payable by specified consumers to allow for IESO to recover the balance recorded in the variance account.

Same, limitations

(4) The Board's powers under subsection (3) shall be exercised in accordance with the regulations.

Transfer of regulatory asset

22xx. (1) The IESO may from time to time transfer all or a portion of the regulatory asset to any financing entity.

Same

(2) Upon receipt by IESO of payment in consideration of a transfer of all or a portion of the regulatory asset, the transfer shall be valid and enforceable against the IESO and the IESO shall retain no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

Same

(3) Upon transfer, the financing entity acquires an investment interest and becomes an investment asset owner.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment interest owner of the regulatory asset.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

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Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Effect of transfer

24xx. (1) The first transfer of the regulatory asset or a portion of it creates the investment asset.

Same

(2) Upon any transfer of all or a portion of the regulatory asset to a financing entity, the investment asset resulting from the transfer is immediately vested in the financing entity, free and clear of any adverse claim, and the financing entity becomes an investment interest owner and acquires an investment interest**.**

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests of investment interest owners:

1. The right to impose, invoice, collect, receive and recover amounts in respect of the clean energy adjustment from specified consumers, including the right to determine the clean energy adjustment in accordance with this Act.

2. The right to receive, collect and recover amounts in respect of the clean energy adjustment that are imposed, invoiced and recoverable under this Act, including any amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge and invoice for amounts in respect of the clean energy adjustment.

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5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of amounts in respect of the clean energy adjustment.

6. All rights of any kind related to any of the other property rights or interests that comprise the investment interest.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether it is invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

Not affected by failure to impose etc. clean energy adjustment

(1.1) An investment interest is not affected by any failure to impose, attribute, invoice, accrue or collect amounts in respect of the clean energy adjustment.

No set off, etc.

(2) The investment asset shall not be set off,

(a) by a consumer, an electricity vendor, an agent of the investment interest owner or an owner of distribution system assets in the Province;

(b) in connection with any default of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with Part III of this Act.

Collective action required

(4) If the investment interest owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment interest owner collectively and in coordination with all other investment interest owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment interest owner as a collective in accordance with its terms.

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Transfer of investment interest

26xx. An investment interest owner may transfer all or a portion of its rights and interests in an investment interest to any other investment interest owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the investment asset owner a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment interest owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment interest owner shall have priority over any liens in favour of such other persons.

Investment interest owner may grant security interest

28xx. (1) An investment interest owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property,

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except as otherwise provided for in this section, and any granting of a security interest by the investment interest owner to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment interest owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any ccount of any electricity vendor, an agent of an electricity vendor or other person who may have commingled such revenues or other proceeds with other funds.

Notice required

(7) The secured party shall be entitled to exercise the rights of an investment interest owner only after the secured party has given notice of the enforcement of its security interest to the IESO.

Definition

(8) For the purposes of this section, a security interest is perfected when it is perfected as described in the *Personal Property Security Act*.

PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

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Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment interest owner or a secured party, order the sequestration and payment of amounts in respect of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment interest owner or secured party by any person or entity authorized to collect amounts in respect of the clean energy adjustment, including defaults on any required remittance of amounts in respect of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required to be taken under the Financing Plan or in relation to the determination of the fair allocation amount.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

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Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under section 5xx unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[5]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations in respect of the following matters:

1. [6]Governing anything that is required or permitted to be prescribed or that is required or permitted to be done by, or in accordance with, the regulations or as authorized, specified or provided in the regulations.

2. Defining, for the purposes of a regulation, words and expressions used in this Act that are not defined in the Act.

x. Prescribing types of payment obligations that constitute funding obligations;

x. governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment;

x. governing the inclusion of information under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments;

x. governing the inclusion of information about the clean energy adjustment and any other matters provided for under this Act on invoices issued to specified consumers, including the form that the information must take and the form of

[5] FLS - see s. 51 of the Electricity Act, 1998

[6] FLS - see s. 78 (1) of the Climate Change Mitigation and Low-carbon Economy Act, 2016 - paras. 1 and 2.

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the invoices and any notice to be provided to the specified consumer under this Act[7];

x. prescribing the time within which any action required by this Act may be required to be done;

x. Providing for such other matters as the Lieutenant Governor in Council considers advisable to carry out the purpose of this Act.

PART VII[8]
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* is amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

[7] FLS - see *OEBA s.79.17 and 88(1)(z.11) and (z.12)*
[8] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

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200.1xx (1) Subsection 25.33 (1) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(1.1) Subsection 25.33 (2) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(2) Subsection 25.33 (3) of the Act is amended by adding the following paragraph:

4. A consumer who is,

   i. a [specified consumer within the meaning of] the *Ontario Fair Hydro Plan Act, 2017*, or

   ii. prescribed by the regulations [made under the *Ontario Energy Board Act, 1998]*.

(3) Clause 25.33 (4) (b) of the Act is amended by adding "or as may be required under a regulation made under the *Ontario Fair Hydro Plan Act, 2017* or the *Ontario Energy Board Act, 1998*" at the end.

(4) Subsection 25.33 (5) of the Act is amended by adding "or under the *Ontario Fair Hydro Plan Act, 2017*" at the end

201x. Section 53.1 of the Act is amended by adding the following subsections:

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Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and engaging in activities to facilitate the implementation of that Act, including entering into contracts and undertakings on behalf of financing entities, subject to the right to be paid by the financing entities for those services.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create or invest in one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act, the *Business Corporations Act* or any other Act,

(a) the assets and liabilities of a special purpose financing entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries; and

(b) the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries shall not form part of the assets and liabilities of a financing entity.

Definition, financing entity

(1.4) For the purposes of this section, "financing entity" has the same meaning as in the *Fair Hydro Plan Act, 2017*.

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* is amended by adding the following paragraph:

6. To facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*.

205x. Subsection 70 (2.1) of the Act is amended by adding the following paragraph:

4. The licensee is required to comply with the *Ontario Fair Hydro Plan Act, 2017*.

206x. Section 78.1 of the Act is amended by adding the following subsection:

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Same, limitation re Ontario Power Generation Inc.

(3) The determination of a payment to Ontario Power Generation Inc. under this section shall not include any consideration of amounts related to activities of Ontario Power Generation Inc. carried out in relation to the *Ontario Fair Hydro Plan Act, 2017*.

Same

(3.1) The amounts referred to in subsection (3) include, without limitation, the following:

1. Amounts related to the appointment of Ontario Power Generation Inc. as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

2. Amounts related to the charging of fees for performing duties as the Financial Services Manager.

3. Amounts related to exercising the powers and performing the duties of the Financial Services Manager.

4. Amounts related to the consolidation of the assets and liabilities for accounting purposes of any special purpose financing entities established under and for the purposes of that Act.

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

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From:	Montgomery, Kaitlin (MOF)
To:	John Kim
Subject:	FW: Ontario Fair Hydro Plan
Date:	Wednesday, April 26, 2017 6:47:51 PM
Attachments:	Fair Hydro Plan Act (April 26 2017) Consultation v4.docx

Latest – though I understand there might be a revised version coming tomorrow (will pass along when I see)

From: Nelms, Scott (MOF)
Sent: April 26, 2017 6:36 PM
To: Montgomery, Kaitlin (MOF)
Subject: FW: Ontario Fair Hydro Plan

fyi

From: Kacaba, Jennifer (ENERGY)
Sent: April 26, 2017 12:39 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny - FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI); mouche1961@gmail.com; Martine Band (Martine.Band@oeb.ca)
Subject: RE: Ontario Fair Hydro Plan

All - Thank you for the detailed comments that you provided on Saturday and Sunday. Please find attached the next turn of the legislation. We have tried to balance the comments that we received to address the points that you have raised. This draft does not reflect the drafting points that were raised over Monday and Tuesday and we will reflect those points in our next instructions to legislative counsel. Please review and identify any significant substantive issues by 6 p.m. today. We continue to work toward pens down on Friday, meaning the draft that we have at that point in time will be proposed for introduction in the House. Thank you again for your contributions to this process.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Kacaba, Jennifer (ENERGY)
Sent: April 20, 2017 5:59 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI)
Subject: RE: Ontario Fair Hydro Plan

All - Please find attached the next turn in the consultation draft (v.3) of the proposed legislation. We have been working to address the feedback that you provided earlier in the week. A number of points remain in progress. As with the earlier versions, by sharing this document, we hope to continue to advance our discussions.

Our timeline has been extended and we are now working to a pens down date of April 28th. We will not get another extension. Accordingly, we ask for your detailed, written comments on the draft, which we require no later than Sunday at noon.

We will continue to work on the bill in the interim, so earlier instructions are helpful to

us. With your input on this timeline, we expect to be able to provide one more circulation around Tuesday or Wednesday next week.

We have not had the opportunity to add notes or to update our crosswalk to the Blakes summary document.

We look forward to receiving your written comments.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Kacaba, Jennifer (ENERGY)
Sent: April 17, 2017 12:00 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS)
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: RE: Ontario Fair Hydro Plan

Please find attached a further turn of the consultation draft. This document continues to be a work in progress. We have not had the opportunity to add notes or update our tracking table. We also have not yet considered the comments that we received this

morning. We look forward to seeing you at 1.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
Sent: April 15, 2017 10:06 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS)
Cc: 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: Ontario Fair Hydro Plan

All - Please find attached the draft “Intergenerational Fairness in Hydro Rates Act, 2017”. A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.

For ease of reference, included with the draft bill are the partially updated Blakes' summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.

In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday

Carolyn Calwell
Legal Director
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
416-212-8392

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Version 4

This confidential draft document is provided for discussion purposes only. It should not be construed as representing the position adopted by the Government of Ontario on any of the topics included or not included in this document. The notes included in this document are intended only to help facilitate a discussion of the topics to which they relate. Any potential legislation is subject to the approval of the Ontario Legislature.

A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

Confidential Draft

A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

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Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1] These commitments can only be achieved if costs are shared fairly among consumers, today and in the future.

Electricity rates have risen for two key reasons. First, decades of under-investment in the electricity system resulted in the need to invest more than $50 billion in generation, transmission and distribution assets to ensure the system is clean and reliable. Second, the decision to eliminate Ontario's use of coal and produce clean, renewable power has created additional costs.

The actions taken to achieve a clean, modern and reliable electricity system have resulted in significant costs to consumers today. The burden of financing these system improvements and funding key programs has unfairly fallen almost entirely on the shoulders of today's consumers.

The Government of Ontario is committed to ensuring that the costs of financing these investments and the associated charges to consumers are allocated fairly among present and future generations of consumers.

Recognizing that the electricity infrastructure that has been built and the policy decisions that have been made will create benefits for years to come, costs should be allocated fairly over time, so that consumers in the future pay their fair share for the benefits that they receive from the investments already made.

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")

"clean energy benefits" means the value of the benefits determined to be derived by or accruing to the specified consumers as a result of the clean energy initiative, including as a result of clean energy costs; ("French")

"clean energy costs" means the value of the costs allocated to specified consumers as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated amounts to be paid or reflected by the IESO in adjustments made under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management,

(iii) energy storage,

(iv) energy efficiency,

(v) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(vi) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

(b) such other estimated costs as may be prescribed; ("French")

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"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[2] means,

(a) a licensed distributor,

(b) a licensed retailer,

(c) the IESO in circumstances where the IESO directly invoices a specified consumer, or

(d) such other person as may be prescribed; ("French")

"fair allocation amount" means the amount determined in under section 15xx;

"financing entity" means an entity established or caused to be established under subsection 17xx (3); ("French")

"Financial Services Manager" means the Financial Services Manager appointed under section 13xx; ("French")

"Financing Plan" means the plan prepared under section 16xx, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means,

(a) a payment obligation incurred in connection with the transfer of a regulatory asset or the refinancing of an existing funding obligation, or

(b) a payment obligation that meets such other criteria as may be prescribed; ("French")

[2] FLS - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means the amount determined under section 20xx; ("French")

"investment asset" means the rights and interests described in section 22xx; ("French")

"investment interest owner" means a financing entity that has acquired and holds an investment interest; ("French")

"investment interest" means,

(a) an ownership interest in the investment asset, and

(b) in circumstances where the ownership interest is transferred, the rights and benefits specified in the agreement under which the interest is transferred; ("French")

"invoice amount" means, in respect of an invoice period, the sum of the amounts set out in subsection (2.1) in relation to the provision of electricity in Ontario to a specified consumer; ("French")

"invoice period" means the period in respect of which an invoice amount applies, as specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"Ontario Power Generation Inc." means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998; ("Ontario Power Generation Inc.")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

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(a) the period beginning on May 1, 2017 and ending on October 31, 2017, and

(b) during the period beginning on November 1, 2017 and ending on April 30, 2047,

(i) every six-month period following the period mentioned in clause (a); or

(ii) any period shorter than six months, as may be prescribed; ("French")

"refinancing" means, subject to the regulations, a redemption, repayment or repurchase of a funding obligation; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right and interest established under section 21xx; ("French")

"specified consumer" means,

(a) a person who has an account with an electricity vendor for the supply of electricity in Ontario and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

"transfer" means [TBD]; ("French")

"unit sub-metering" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("activités liées aux compteurs divisionnaires d'unité")

"unit sub-meter provider" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("fournisseur de compteurs divisionnaires d'unité")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

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2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

Invoice amount

(2.1) Subject to the regulations, the invoice amount for a specified consumer in respect of an invoice period includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following amounts in respect of the invoice period:

    i. The commodity price of the electricity used.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998* and in effect on April 30, 2017.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

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iv. The amount of any harmonized sales tax payable by the consumer under Part IX of the *Excise Tax Act* (Canada) in respect of the amounts mentioned in subparagraphs i, ii and iii;

v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO or other prescribed entity, such amounts as may be prescribed in respect of the invoice period. ("French")

Same, exclusions

(2.2) Subject to the regulations, an invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices in respect of previous invoice periods.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

   i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

   ii. A charge labelled as a "specific service charge" or "retail service charge".

   iii. A rate rider [of the prescribed type or class].

5. Any other prescribed amounts.

Effect of invalidity, etc.[3]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if one or more provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

[3] FLS: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect the validity or enforceability of a funding obligation incurred under this Act before the day that the provision is held to be invalid or ceases to be in effect, or any rights or obligations associated with the funding obligation.

Purpose

3xx. (1) The purposes of this Act are,[4]

(a) to ensure that clean energy costs are fairly allocated among present and future specified consumers and reflect the fair allocation; and

(b) to recognize that clean energy benefits have accrued and will accrue over time and will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of amounts in respect of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the clean energy adjustment determined under this Act or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding the performance of IESO or electricity vendors under this Act or similar transactions.

[4] FLS: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Guarantee, indemnification

(4) The Lieutenant Governor in Council may by order,

(a) authorize the Minister of Finance, on behalf of the Province,

(i) to agree to guarantee or indemnify any debts, obligations, securities or undertakings associated with an investment interest, and

(ii) to determine terms and conditions and the amount on which the guarantee or indemnity will be given;

(b) impose terms and conditions, as it considers advisable, on which the Minister of Finance may, on behalf of the Province, agree to guarantee or indemnify as described in subclause (a) (ii); and

(c) specify a maximum liability for the guarantee or indemnity.

PART II
FAIR ADJUSTMENT OF ELECTRICITY RATES

Definitions

6xx. In this Part,

"effective date" means the date determined under section 6.5xx; ("French")

"RPP rate" means the rate determined by the Board under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*, which rate is commonly referred to as the Regulated Price Plan"; ("French")

"specified RPP consumer" means a specified consumer who meets the following criteria:

1. The consumer is a member of the class of consumers prescribed by the regulations made under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act.

2. The consumer is subject to the RPP rate. ("French")

Specified RPP consumer, first fair adjustment

6.1xx (1) The rate for electricity payable by a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate required for a specified RPP consumer who meets the prescribed criteria to receive a monthly invoice

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amount that is 25 per cent lower than the monthly invoice amount for that consumer under the comparison rate described in subsection (2).

Comparison rate

(2) The comparison rate is the rate that would be effective May 1, 2017, determined by the Board solely using the method prescribed by the regulations made under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*.

Same

(3) For the purposes of subsection (2), the applicable method is the method on the day this section comes into force.

Specified consumers (non-RPP), first fair adjustment

6.2xx The rate for electricity payable by a specified consumer who is not a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate that would be necessary in order for [the monthly global adjustment rate] in respect of a specified consumer who is not a specified RPP consumer (RPP) and who meets the prescribed criteria to be reduced by the same amount as the difference between the comparison rate referred to in subsection 6.1xx (2) and the rate determined under subsection 6.1xx (1).

Determination by Board

6.3xx The Board shall determine the rates mentioned in sections 6.1xx and 6.2xx no later than seven business days after the day this section receives Royal Assent.

Implementation of rates

6.4xx Each electricity vendor, [specified consumer who provides electricity to a sub-meter customer and unit sub-meter provider who provides unit sub-metering for a specified consumer] shall, no later than seven business days after the day on which the Board determines the rates under section 6.3xx, adapt is billing practices and invoices to reflect the new rates.

Effective date

6.5xx The rates determined under section 6.3xx are effective on the earlier of the following days:

1. The first day of the month immediately following the last day of the seven-day period referred to in section 6.4xx.

2. July 1, 2017.

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Transition

6.6xx (1) This section applies if an electricity vendor, specified consumer or unit sub-meter provider is unable to comply with section 6.4xx for one of the following reasons:

1. There are fewer than seven days between the day of the Board's determination of rates under section 6.3xx and the effective date.

2. Technical or operational reasons.

Same

(2) In the circumstances described in subsection (1), the electricity vendor, specified consumer or unit sub-meter provider shall,

(a) adapt its invoices as soon as possible and, in any event, no later than August 1, 2017; and

(b) ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate determined by the Board receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Subsequent fair adjustments

7xx. The Lieutenant Governor in Council may make regulations prescribing the methodology to be applied by the Board to determine rates for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

Sub-meter customers

7.1xx A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the applicable rate determined under this Part.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay

8xx. (1) Upon receipt of an invoice that includes an amount in respect of the clean energy adjustment, a specified consumer shall pay the amount to the electricity vendor, as agent of the investment interest owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

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Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment was determined in a manner that was inconsistent with this Act; and

(b) whether the amount payable in respect of the clean energy adjustment relates to funding obligations that were incurred in a manner that was not in material conformity with the Financing Plan.

Indebtedness of specified consumer

(4) An unpaid amount that is required to be paid by a specified consumer under this section constitutes indebtedness of the specified consumer to each investment interest owner to the extent of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer.

Recovery from sub-meter consumers

(6) A specified consumer who provides electricity to a sub-meter customer may recover amounts in respect of the clean energy adjustment payable under this section from each sub-meter customer on a pro rata basis.

Irrevocability of amount

9xx. (1) An amount in respect of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness resulting from the clean energy adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a clerical, typographical or calculation-related error by the electricity vendor.

Determination of clean energy adjustment
Financial Services Manager to determine

10xx. (1) The Financial Services Manager shall determine the clean energy adjustment payable by all specified consumers in respect of each month in a reference period by adding the estimated finance amount in respect of the reference period to the true up amount in respect of the reference period.

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Estimated finance amount, true up amount

(2) The estimated finance amount and the true up amount shall be determined in accordance with the regulations.

Regulations re true up amount

(3) The regulations under subsection (2) shall have regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

    i. differences between the estimated and actual finance amount for the immediately preceding reference period,

    ii. differences between amounts invoiced and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

    ii. variations in billings due to variations in electricity consumption.

Financial Services Manager to notify Board

(4) The Financial Services Manager shall, in accordance with the regulations, notify the Board of the clean energy adjustment and such other information related to the determination of the clean energy adjustment as may be prescribed.

Board to determine rates

(5) The Board shall, in accordance with the regulations, determine the rate at which specified consumers are invoiced to recover the clean energy adjustment in respect of the reference period.

IESO to receive amounts

11xx. (2) The IESO shall, as an agent of the investment interest owners, receive amounts in respect of the clean energy adjustment paid to it from electricity vendors in accordance with the regulations and the market rules made under section 32 of the *Electricity Act, 1998*.

Account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of receiving those amounts:

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1. Amounts described in subsection 11xx (2).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8xx (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment interest owner, be received and held in trust by the IESO for the investment interest owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment interest owners in accordance with the regulations.

Electricity vendor to invoice specified consumers

12xx. (1) Each electricity vendor shall issue an invoice to each of its specified consumers for the amount payable by the consumer in respect of the clean energy adjustment, as determined by applying the rate set by the Board under subsection 10xx (2) and in accordance with the regulations.

Electricity vendor to report

(1.1) Each electricity vendor shall, in accordance with the regulations, promptly report to the IESO the total amount invoiced to its specified consumers in respect of the clean energy adjustment, the amount collected and such further information as may be prescribed.

Electricity vendor to collect

(2) Each electricity vendor shall, as agent of the investment interest owners, collect amounts in respect of the clean energy adjustment from specified consumers in accordance with the regulations.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges in respect of the same period.

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Held in trust

(4) Payments received by an electricity vendor from or on behalf of specified consumers shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be received by and held by each electricity vendor in trust for the benefit of the investment interest owners.

Remittance to IESO

(5) Each electricity vendor shall remit amounts described in subsection (5) to the IESO for the benefit of the investment interest owners in accordance with the regulations.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) Subject to subsection (2), Ontario Power Generation Inc. is appointed as the Financial Services Manager for the purposes of this Act.

Replacement

(2) The Minister may terminate an appointment of a Financial Services Manager and may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment interest owners.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section 10xx.

2. Providing information to the IESO in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

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FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period, having regard to the need to align that amount with the finance amount payable during the reference period, for the purpose of fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of the reference period.

Timing of calculation

(1.1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period before any funding obligation is incurred [by a financing entity during the reference period].

Amount

(1.2) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which, if this Act had not been enacted, the estimated clean energy costs and estimated clean energy benefits allocated to specified consumers in respect of the reference period would have exceeded the estimated amount of the adjustments provided for under section 25.33 of the *Electricity Act, 1998* and the regulations made under that provision that would have been borne by the specified consumers in respect of clean energy costs for the reference period.

2. A portion of the value of any fair adjustment that has been made under Part II in respect of any previous reference period.

Principles

(2) In calculating the estimated clean energy costs and estimated clean energy benefits to be allocated to specified consumers in respect of a reference period, the Financial Services Manager shall [comply with the regulations and] have regard to the following principles:

1. Clean energy costs allocated to specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits allocated to the specified consumers in respect of a reference period should be determined in accordance with the regulations.

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3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers in respect of each reference period.

    iii. The expected electricity consumption rates in respect of each reference period.

Method

(3) The Financial Services Manager shall calculate a fair allocation amount in accordance with such methods as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Notification to Minister

(4) The Financial Services Manager shall notify the Minister of the methods used to calculate the fair allocation amount and any changes to those methods.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred for the purposes of acquiring an investment interest in accordance with this Act.

Plan to be provided to Minister

(1.1) The Financial Services Manager shall provide the Financing Plan to the Minister.

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Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align with the estimated finance amount, as determined in accordance with the regulations, that would, subject to any refinancing, become due and payable during a reference period with the fair allocation amount determined in respect of the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment in respect of the reference period.

2. Incurrences should be implemented in a manner that, in the opinion of the Financial Services Manager, is reasonable, cost effective and that reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in amounts payable in respect of the clean energy adjustment in respect of the reference period unless,

(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount in respect of the reference period and the amount of the fair adjustment in respect of the reference period].

Other reports

(3.1) The Financial Services Manager shall submit to the Minister such reports and information as the Minister may require from time to time and shall, if required by the Minister to do so, examine, report and advise on any question relating to the Financing Plan.

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(5) The following are deemed to be records subject to clauses 18 (1) (c) and (d) of the *Freedom of Information and Protection of Privacy Act*:

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1. The Financing Plan.

2. Reports referred to in subsection (3.1).

3. Any other document that would reveal information contained in the Financing Plan or the reports.

Amendments to plan

(6) The Financial Services Manager may amend the Financing Plan at any time.

Same

(7) In the event that the Financing Plan is amended, any reference in this section to the Financing Plan is deemed to be a reference to the plan as amended.

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, subsection 17xx (5) applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish or cause to be established one or more financing entities that may incur funding obligations.

Prohibition

(3.1) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, Ontario Power Generation Inc., the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation or other agreement.

Effect of amendment to fair allocation amount

(4) Each funding obligation incurred and each transfer made by a financing entity is deemed to be consistent with the Financing Plan and [the fair allocation amount].

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PART V
THE REGULATORY ASSET

IESO funding shortfall

20xx. (1) The IESO funding shortfall for each month shall be determined in accordance with the regulations.

Electricity vendors to provide information

(2) Electricity vendors shall provide to IESO such information as IESO may reasonably request for the purposes of determining the IESO shortfall under subsection (1) and such further information as may be prescribed.

Same

(3) IESO may rely on information provided by electricity vendors for the purposes of the determination under subsection (1).

Variance account to be established, maintained

20.1xx (1) The IESO shall establish and maintain a variance account for the purposes of this section.

Recording in variance account

(2) The IESO shall record the following in the variance account:

1. The amount of the IESO funding shortfall for each month.

2. All payments received by the IESO resulting from the exercise of the right of recovery under section 21xx and any transfer under section 22xx.

3. Such other adjustments as may be prescribed.

Recording determinative

(3) Subject to any finding of [manifest error], a recording by the IESO in the variance account of the balance is, as of the time of the recording, determinative of the balance at the time.

Rights of investment interest owner

(4) No change made by IESO to the balance in the variance account shall, if the previous balance was relied upon by an investment interest owner in the context of a transfer under section 22x, affect the rights of the investment interest owner acquired under the transfer.

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Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the balance recorded in the variance account from specified consumers.

Limitation

(2) Despite subsection (1), the IESO shall not be entitled to collect all or part of the balance recorded in the variance account from specified consumers before May 1, 2022.

Board to set rates

(3) The Board shall, from time to time, determine and set rates payable by specified consumers to allow for IESO to recover the balance recorded in the variance account.

Same, limitations

(4) The Board's powers under subsection (3) shall be exercised in accordance with the regulations.

Transfer of regulatory asset

22xx. (1) The IESO may from time to time transfer all or a portion of the regulatory asset to any financing entity.

Same

(2) Upon receipt by IESO of payment in consideration of a transfer of all or a portion of the regulatory asset, the transfer shall be valid and enforceable against the IESO and the IESO shall retain no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

Same

(3) Upon transfer, the financing entity acquires an investment interest and becomes an investment asset owner.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment interest owner of the regulatory asset.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

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Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Effect of transfer

24xx. (1) The first transfer of the regulatory asset or a portion of it creates the investment asset.

Same

(2) Upon any transfer of all or a portion of the regulatory asset to a financing entity, the investment asset resulting from the transfer is immediately vested in the financing entity, free and clear of any adverse claim, and the financing entity becomes an investment interest owner and acquires an investment interest**.**

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests of investment interest owners:

1. The right to impose, invoice, collect, receive and recover amounts in respect of the clean energy adjustment from specified consumers, including the right to determine the clean energy adjustment in accordance with this Act.

2. The right to receive, collect and recover amounts in respect of the clean energy adjustment that are imposed, invoiced and recoverable under this Act, including any amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge and invoice for amounts in respect of the clean energy adjustment.

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5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of amounts in respect of the clean energy adjustment.

6. All rights of any kind related to any of the other property rights or interests that comprise the investment interest.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether it is invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

Not affected by failure to impose etc. clean energy adjustment

(1.1) An investment interest is not affected by any failure to impose, attribute, invoice, accrue or collect amounts in respect of the clean energy adjustment.

No set off, etc.

(2) The investment asset shall not be set off,

(a) by a consumer, an electricity vendor, an agent of the investment interest owner or an owner of distribution system assets in the Province;

(b) in connection with any default of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with Part III of this Act.

Collective action required

(4) If the investment interest owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment interest owner collectively and in coordination with all other investment interest owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment interest owner as a collective in accordance with its terms.

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Transfer of investment interest

26xx. An investment interest owner may transfer all or a portion of its rights and interests in an investment interest to any other investment interest owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the investment asset owner a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment interest owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment interest owner shall have priority over any liens in favour of such other persons.

Investment interest owner may grant security interest

28xx. (1) An investment interest owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property,

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except as otherwise provided for in this section, and any granting of a security interest by the investment interest owner to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment interest owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any ccount of any electricity vendor, an agent of an electricity vendor or other person who may have commingled such revenues or other proceeds with other funds.

Notice required

(7) The secured party shall be entitled to exercise the rights of an investment interest owner only after the secured party has given notice of the enforcement of its security interest to the IESO.

Definition

(8) For the purposes of this section, a security interest is perfected when it is perfected as described in the *Personal Property Security Act*.

PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

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Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment interest owner or a secured party, order the sequestration and payment of amounts in respect of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment interest owner or secured party by any person or entity authorized to collect amounts in respect of the clean energy adjustment, including defaults on any required remittance of amounts in respect of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required to be taken under the Financing Plan or in relation to the determination of the fair allocation amount.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

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Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under section 5xx unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[5]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations in respect of the following matters:

1. [6]Governing anything that is required or permitted to be prescribed or that is required or permitted to be done by, or in accordance with, the regulations or as authorized, specified or provided in the regulations.

2. Defining, for the purposes of a regulation, words and expressions used in this Act that are not defined in the Act.

x. Prescribing types of payment obligations that constitute funding obligations;

x. governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment;

x. governing the inclusion of information under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments;

x. governing the inclusion of information about the clean energy adjustment and any other matters provided for under this Act on invoices issued to specified consumers, including the form that the information must take and the form of

[5] FLS - see s. 51 of the Electricity Act, 1998

[6] FLS - see s. 78 (1) of the Climate Change Mitigation and Low-carbon Economy Act, 2016 - paras. 1 and 2.

Confidential Draft

the invoices and any notice to be provided to the specified consumer under this Act[7];

x. prescribing the time within which any action required by this Act may be required to be done;

x. Providing for such other matters as the Lieutenant Governor in Council considers advisable to carry out the purpose of this Act.

PART VII[8]
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* is amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

[7] FLS - see *OEBA s.79.17 and 88(1)(z.11) and (z.12)*
[8] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

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200.1xx (1) Subsection 25.33 (1) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(1.1) Subsection 25.33 (2) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(2) Subsection 25.33 (3) of the Act is amended by adding the following paragraph:

4. A consumer who is,

   i. a [specified consumer within the meaning of] the *Ontario Fair Hydro Plan Act, 2017*, or

   ii. prescribed by the regulations [made under the *Ontario Energy Board Act, 1998]*.

(3) Clause 25.33 (4) (b) of the Act is amended by adding "or as may be required under a regulation made under the *Ontario Fair Hydro Plan Act, 2017* or the *Ontario Energy Board Act, 1998*" at the end.

(4) Subsection 25.33 (5) of the Act is amended by adding "or under the *Ontario Fair Hydro Plan Act, 2017*" at the end

201x. Section 53.1 of the Act is amended by adding the following subsections:

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Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and engaging in activities to facilitate the implementation of that Act, including entering into contracts and undertakings on behalf of financing entities, subject to the right to be paid by the financing entities for those services.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create or invest in one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act, the *Business Corporations Act* or any other Act,

(a) the assets and liabilities of a special purpose financing entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries; and

(b) the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries shall not form part of the assets and liabilities of a financing entity.

Definition, financing entity

(1.4) For the purposes of this section, "financing entity" has the same meaning as in the *Fair Hydro Plan Act, 2017*.

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* is amended by adding the following paragraph:

6. To facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*.

205x. Subsection 70 (2.1) of the Act is amended by adding the following paragraph:

4. The licensee is required to comply with the *Ontario Fair Hydro Plan Act, 2017*.

206x. Section 78.1 of the Act is amended by adding the following subsection:

Confidential Draft

Same, limitation re Ontario Power Generation Inc.

(3) The determination of a payment to Ontario Power Generation Inc. under this section shall not include any consideration of amounts related to activities of Ontario Power Generation Inc. carried out in relation to the *Ontario Fair Hydro Plan Act, 2017*.

Same

(3.1) The amounts referred to in subsection (3) include, without limitation, the following:

1. Amounts related to the appointment of Ontario Power Generation Inc. as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

2. Amounts related to the charging of fees for performing duties as the Financial Services Manager.

3. Amounts related to exercising the powers and performing the duties of the Financial Services Manager.

4. Amounts related to the consolidation of the assets and liabilities for accounting purposes of any special purpose financing entities established under and for the purposes of that Act.

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

Confidential Draft

From: John Kim
To: Bruno Amara
Subject: FW: PILs Exemptions
Date: Tuesday, April 25, 2017 3:54:03 PM

Fyi.

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Tuesday, April 25, 2017 3:49 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: PILs Exemptions

Hi Ron, John,

I wanted to keep you apprised of where we are with Tax Policy on OPG's request for specific PILs exemptions as part of OFHP. See below for details – we are hoping to punt to regulations.

Thanks,
Scott

From: Nelms, Scott (MOF)
Sent: April 25, 2017 3:25 PM
To: 'Hill, Krista'; john.s.lee@opg.com
Cc: RYFA Ken -TREASURY; WONG Leslie -LAWDIV; Wortsman, Jerald; Watson, Gwen; Feldman, Michael; Calwell, Carolyn (ENERGY/MEDEI/MRI); Rehob, James (ENERGY)
Subject: RE: Comments

Hi Krista, John,

We shared your ask with Finance Tax Policy and they have been mulling this over for the past few days. We had a conversation this morning and I wanted to provide a synopsis of that call:

- Tax Policy is of the view that if this is structured as a Trust will be a taxable entity under the Income Tax Act. However, because OPG is the beneficiary of the Trust, it will not pay any taxes. For greater certainty, Tax Policy suggested seeking a ruling from CRA. If necessary, we could seek an exemption from CRA (there is precedent with the Nuclear Funds Trust). Please let me know whether that is consistent with your assessment.
- Since all income from the Trust will flow to OPG, all revenues would be subject to PILs (unless we take action to make specific exemptions).
- As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust.
- Tax Policy has a number of questions about how to define those exempted revenue streams and the rationale for those exemptions. They want considerably more detail and more time to consider this issue.
- According to Tax Policy, existing Legislation (James I will leave it to you to describe) provides authority to set out PILs exemptions in regulations. Therefore they suggest we do not need

to add anything in to the OFHP legislation at this time. That will provide time to more fully consider the issue and discuss the need for these exemptions.

- I suggested I was generally comfortable with this approach, subject to input from OPG and Torys. I think it is better for us to have more time and the flexibility to include these provisions in regulations. Given where we are in the process, I think we are out of time to settle legislative language that will work for Tax Policy.

James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From: Ronald Kwan
To: John Kim
Subject: FW: PILs Exemptions
Date: Tuesday, April 25, 2017 4:30:03 PM

Hi John,

Please connect with TPD.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-25-17 15:49
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: PILs Exemptions

Hi Ron, John,

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Thanks,
Scott

From: Nelms, Scott (MOF)
Sent: April 25, 2017 3:25 PM
To: 'Hill, Krista'; john.s.lee@opg.com
Cc: RYFA Ken -TREASURY; WONG Leslie -LAWDIV; Wortsman, Jerald; Watson, Gwen; Feldman, Michael; Calwell, Carolyn (ENERGY/MEDEI/MRI); Rehob, James (ENERGY)
Subject: RE: Comments

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- I suggested I was generally comfortable with this approach, subject to input from OPG and Torys. I think it is better for us to have more time and the flexibility to include these provisions in regulations. Given where we are in the process, I think we are out of time to settle legislative language that will work for Tax Policy.

James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From:	Gavin He
To:	John Kim; Bruno Amara
Cc:	Ronald Kwan
Subject:	FW: Rate Mitigation Implementation Meeting - April 25, 2017
Date:	Monday, April 24, 2017 6:30:26 PM
Attachments:	Agenda_Weekly Rate Mitig Implmentation Group_April 25.docx Consolidated - OFHP Matrix - Week of April 24.docx

Hi John/Bruno,

FYI.

Regards,
Gavin He

From: Gadi Mayman
Sent: Monday, April 24, 2017 5:02 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - April 25, 2017

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Monday, April 24, 2017 5:02 PM
To: Steen Hume (CAB) <Steen.Hume@ontario.ca>; Kaili Sermat-Harding (ENERGY) <Kaili.Sermat-Harding@ontario.ca>; Michael Reid (ENERGY) <Michael.Reid@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com) <jeffrey.lyash@opg.com>; HARTWICK Ken - FINANCE (ken.hartwick@opg.com) <ken.hartwick@opg.com>; Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca) <maryanne.aldred@ontarioenergyboard.ca>; Campbell, Bruce (bruce.campbell@ieso.ca) <bruce.campbell@ieso.ca>; Kim Marshall (Kim.Marshall@ieso.ca) <Kim.Marshall@ieso.ca>; Scott Thompson (CAB) <Scott.Thompson@ontario.ca>; Helen Angus (MOHLTC) <Helen.Angus@ontario.ca>; Steven Davidson (MTCS) <Steven.Davidson@ontario.ca>; 'Martine Band' <Martine.Band@ontarioenergyboard.ca>; 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; LEE John -TREASURY <john.s.lee@opg.com>
Cc: Serge Imbrogno (ENERGY) <Serge.Imbrogno@ontario.ca>; Andrew Teliszewsky (ENERGY) <Andrew.Teliszewsky@ontario.ca>; Matt Whittington (ENERGY) <Matt.Whittington@ontario.ca>; Baker, Carys (ENERGY) <Carys.Baker@ontario.ca>; Kyle MacIntyre (MOF) <Kyle.MacIntyre@ontario.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Robert Foster (MOF) <Robert.Foster@ontario.ca>; jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca' <sarah.branco@ontarioenergyboard.ca>; Turnevicius, Lorraine <lorraine.turnevicius@ieso.ca>;

catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY) <Francesca.Bungaro-Yemec@ontario.ca>; Martin Schlaepfer (MOF) <Martin.Schlaepfer@ontario.ca>
Subject: Rate Mitigation Implementation Meeting - April 25, 2017

Good afternoon,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 25, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB / Blakes)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - RRRP, OESP and FN (SNAP)
    - Affordability Fund (CRED)
    - ICI (ESPD)

3) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 24, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation / Regulations • Ministry has retained Navigant to prepare a report on long lived assets and associated assessment of value, Ministry to work with OPG to ensure alignment with OPG internal report for its Board • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; o OPG working with the Ministries of Energy and Finance on equity injection mechanics, approvals and valuation approach; and o Ministry of Finance and Energy are working with TD on a non-disclosure agreement <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market – IESO/OPG to work together on outstanding issues	• AG briefing on April 19, 2017 (TBD) • April 28, pens down on Legislation • KPMG and E&Y opinions to be provided by May 1 • OPG Board to meet on May 1 for approval (Note: Sub-Committee meetings will occur in advance) • Approval dates: o TB on May 9 2017; and o LRC/Cabinet on May 10, 2017 • Legislation introduced May 11, 2017: o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	regarding OPG cash flows • MOF (IGS) to work through equity injection mechanics and report back next week • OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder letter in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member • OPG provided draft letter to OPG Board sub-committee on April 7, 2017 and provided to Ministry for comment. April 13, 2017, Minister of Energy sent letter to the OPG Chair • OPG to develop note on rationale for 51/49 capital structure of the Trust • OPG to confirm proposed tax status of the Special Purpose Vehicle (SPV) • OPG / OFA to comment / report on overall structure and financibility for TB report back • OPG to draft terms of guarantee to dealers (which will be presented to dealers) **IESO:** • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to discuss LDC issues with OEB • IESO to work with KPMG on IESO recovery mechanism **OEB:** • OEB working to finalize RPP rates and release by April 20 **Legislative Drafting:** • LSB / Blakes / OPG / IESO / OEB / Key Ministries will continue to	

Item	Key Deliverables / Considerations	Timing / Next Steps
	work through legislative drafting issues including asking dealers about whether a rate class can be named as the backstop in legislation instead of individual ratepayers • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • LSB to circulate legislation for review and comment over the weekend – comments requested by end of day Sunday April 23 • ENERGY / Blakes / IESO / OEB / OPG / Key Ministries to meet on Monday to work through issues related to legislation • Blakes / LSB to work with MAG on any constitutional law issues <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs • SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each • Ministry to develop briefing note on why LDCs with RRRP continue to track to OEB for rate increases <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and	• April 28, pens down on Legislation • Report back to TB/MBC on May 9, 2017 (TBD) • Implementation of expanded program and reduction in RRRP charge is targeted for July 1 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
	Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • Legislation to include provision to allow for sharing of data between MCSS and OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • OEB decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • Ministry is working with OEB on how the OESP enhancement will be announced as part of a communications exercise. • Positive progress with OEB on implementation: o OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts; o Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100 million) to reduce current OESP charge to zero and continue funding	• April 28, pens down on Legislation • Report back to TB/MBC on May 9, 2017 (TBD) • Enhanced benefits and removal of OESP charge will take effect in May 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
	existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • On-reserve eligibility considerations require discussion with Chiefs of Ontario • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• April 28, pens down on Legislation • Ministry to meet with COO on April 26 regarding FN Rate implementation • Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Introduction of FNDC program targeting July 1 2017
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust (“Trust Deed”) • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust)	**April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017;

Item	Key Deliverables / Considerations	Timing / Next Steps
	Recent Action Items • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. • April 7, 2017: Hydro One letter to Advisory Committee members to schedule next meeting and ask members to start thinking of qualified Trustees • Affordability Fund advisory committee met this week and reached consensus on three LDCs + two social agencies to be represented on Trust Board (Ottawa Carlton UW / Advocacy Centre for Tenants Ontario / Thunder Bay Hydro / Hydro One / Alectra) Considerations • Legislative changes not required.	Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	Recent Action Items • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) Considerations • Ongoing outreach with LDCs being undertaken by IESO.	• Report back to TB/MBC on May 9, 2017 • Effective April 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	Considerations • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • March 31, 2017: Ministry submitted responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP Recent Action Items • Provide AG technical briefing presentation used in media lock-up on OFHP in advance of the technical briefing	• Preliminary discussion on April 19, 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment <u>Recent Action Items</u> • MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall) • Ministry to develop deck on bill presentment with high level slides on legislation	• Initial discussion on March 31, 2017

From: Gavin He
To: John Kim; Bruno Amara
Cc: Ronald Kwan
Subject: FW: Rate Mitigation Implementation Meeting - April 20, 2017
Date: Wednesday, April 19, 2017 5:25:07 PM
Attachments: Agenda_Weekly Rate Mitig Implmentation Group_April 20.docx
Consolidated - OFHP Matrix - Week of April 18_clean (3).docx

Hi John/Bruno,

FYI.

Regards,
Gavin He

From: Gadi Mayman
Sent: Wednesday, April 19, 2017 5:18 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 20, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Wednesday, April 19, 2017 5:10 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken - FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 20, 2017

Good afternoon,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 20, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB / Blakes)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - RRRP, OESP and FN (SNAP)
    - Affordability Fund (CRED)
    - ICI (ESPD)

3) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 18, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation / Regulations • Ministry to look into retaining Navigant for report on long lived assets and associated assessment of value, Ministry to work with OPG to ensure alignment with OPG internal report for its Board • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; o OPG working with the Ministries of Energy and Finance on equity injection mechanics, approvals and valuation approach; and o Ministry of Finance and Energy are working with TD on a non-disclosure agreement <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market	• AG briefing on April 19, 2017 (TBD) • April 28, pens down on Legislation • KPMG and E&Y opinions to be provided by May 1 • OPG Board to meet on May 1 for approval (Note: Sub-Committee meetings will occur in advance) • Approval dates: o TB on May 9 2017; and o LRC/Cabinet on May 10, 2017 • Legislation introduced May 11, 2017: o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	• OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder letter in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member • OPG provided draft letter to OPG Board sub-committee on April 7, 2017 and provided to Ministry for comment. April 13, 2017, Minister of Energy sent letter to the OPG Chair • OPG to develop note on rationale for 51/49 capital structure of the Trust • OPG to confirm proposed tax status of the Special Purpose Vehicle (SPV) • OPG / OFA to comment / report on overall structure and financibility for TB report back **IESO:** • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to discuss LDC issues with OEB **OEB:** • OEB working to finalize RPP rates and release by April 20 **Legislative Drafting:** • LSB / Blakes / OPG / IESO / OEB / Key Ministries will continue to work through legislative drafting issues including asking dealers about whether a rate class can be named as the backstop in legislation instead of individual ratepayers • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • LSB to circulate legislation for review and comment over the weekend	

Item	Key Deliverables / Considerations	Timing / Next Steps
	• ENERGY / Blakes / IESO / OEB / OPG / Key Ministries to meet on Monday to work through issues related to legislation • Blakes / LSB to work with MAG on any constitutional law issues <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs • SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each • Ministry to develop briefing note on why LDCs with RRRP continue to track to OEB for rate increases <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 9, 2017 (TBD) • Implementation of expanded program and reduction in RRRP charge is targeted for July 1 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • Legislation to include provision to allow for sharing of data between MCSS and OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • OEB decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • Ministry is working with OEB on how the OESP enhancement will be announced as part of a communications exercise. • Positive progress with OEB on implementation: o OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts; o Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100 million) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 9, 2017 (TBD) • Enhanced benefits and removal of OESP charge will take effect in May 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • On-reserve eligibility considerations require discussion with Chiefs of Ontario • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Ministry to meet with COO on April 26 regarding FN Rate implementation • Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Introduction of FNDC program targeting July 1 2017
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust (“Trust Deed”) • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare.	**April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees • Second meeting of the Advisory Committee is

Item	Key Deliverables / Considerations	Timing / Next Steps
	• April 7, 2017: Hydro One letter to Advisory Committee members to schedule next meeting and ask members to start thinking of qualified Trustees <u>Considerations</u> • Legislative changes not required.	scheduled for April 18, 2017 **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	<u>Recent Action Items</u> • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) <u>Considerations</u> • Ongoing outreach with LDCs being undertaken by IESO.	• Report back to TB/MBC on May 9, 2017 • Effective April 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	Considerations • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • March 31, 2017: Ministry submitted responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP Recent Action Items • Provide AG technical briefing presentation used in media lock-up	• Preliminary discussion on April 19, 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
	on OFHP in advance of the technical briefing	
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment <u>Recent Action Items</u> • MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall) • Ministry to develop deck on bill presentment with high level slides on legislation	• Initial discussion on March 31, 2017

From:	Gavin He
To:	John Kim; Bruno Amara
Cc:	Ronald Kwan
Subject:	FW: Rate Mitigation Implementation Meeting - April 13, 2017
Date:	Wednesday, April 12, 2017 5:35:57 PM
Attachments:	Consolidated - OFHP Matrix - Week of April 10.docx Agenda_Weekly Rate Mitig Implmentation Group_Mar 13.docx Letter from Province to OPG.DOCX

Hi John/Bruno,

Please find attached the meeting materials for your review.

Thanks,
Gavin He

From: Gadi Mayman
Sent: Wednesday, April 12, 2017 5:35 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - April 13, 2017

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Wednesday, April 12, 2017 5:33 PM
To: Steen Hume (CAB) <Steen.Hume@ontario.ca>; Kaili Sermat-Harding (ENERGY) <Kaili.Sermat-Harding@ontario.ca>; Michael Reid (ENERGY) <Michael.Reid@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com) <jeffrey.lyash@opg.com>; HARTWICK Ken - FINANCE (ken.hartwick@opg.com) <ken.hartwick@opg.com>; Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca) <maryanne.aldred@ontarioenergyboard.ca>; Campbell, Bruce (bruce.campbell@ieso.ca) <bruce.campbell@ieso.ca>; Kim Marshall (Kim.Marshall@ieso.ca) <Kim.Marshall@ieso.ca>; Scott Thompson (CAB) <Scott.Thompson@ontario.ca>; Helen Angus (MOHLTC) <Helen.Angus@ontario.ca>; Steven Davidson (MTCS) <Steven.Davidson@ontario.ca>; 'Martine Band' <Martine.Band@ontarioenergyboard.ca>; 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; LEE John -TREASURY <john.s.lee@opg.com>
Cc: Serge Imbrogno (ENERGY) <Serge.Imbrogno@ontario.ca>; Andrew Teliszewsky (ENERGY) <Andrew.Teliszewsky@ontario.ca>; Matt Whittington (ENERGY) <Matt.Whittington@ontario.ca>; Baker, Carys (ENERGY) <Carys.Baker@ontario.ca>; Kyle MacIntyre (MOF) <Kyle.MacIntyre@ontario.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Robert Foster (MOF) <Robert.Foster@ontario.ca>; jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'

<sarah.branco@ontarioenergyboard.ca>; Turnevicius, Lorraine <lorraine.turnevicius@ieso.ca>; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY) <Francesca.Bungaro-Yemec@ontario.ca>

Subject: Rate Mitigation Implementation Meeting - April 13, 2017

Good evening,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

Implementation of Ontario's Fair Hydro Plan
Week of April 10, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation
	• Defining mitigation and recovery mechanism
	• Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg. 95/05)
	• Shareholder Resolution (work with OPG to determine form)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o How long will IESO hold short term liability (weeks/months);
	  o When and how frequently will OPG purchase the asset from IESO;
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc);
	  o OPG to confirm if it is considering more than one SPV/subsidiary;
	  o OPG to explore tax considerations;
	  o OPG to indicate how it would determine interest rate on sub-debt; and
	  o OPG to provide amount/frequency of equity required and indicate trigger
	• Third Party Technical Report (e.g., long lived assets, associated assessment of social, health and environmental benefits)
	
	<u>Recent Action Items</u>
	
	OPG:
	• OPG to continue to work with lead banks / rating agencies / OFA on financing issues
	• OPG to confirm accounting if OFA were to act as lead order on borrowing
	• OPG to determine who will finance / hold the asset until it goes to
		• IESO Board meeting on April 12, 2017 – ESP to present on OFHP
		
		• AG briefing on April 19, 2017 (TBD)
		
		• Provide comfort letter to allow OEB to include in May 2017 RPP
		
		• April 21, 2017, "pens down" on Legislative drafting
		
		• Approval dates:
		  o TB/LRC on May 1 2017; and
		  o Cabinet on May 3, 2017
		
		• Legislation introduced May 4, 2017.
		  o Opposition Briefing (TBD)
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	the market • OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member • OPG providing shareholder resolution to OPG Board committee April 7, 2017 and will be provided to Ministry following that **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes / OPG / IESO will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature • Working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Monday to work through issues related to legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap	

Item	Key Deliverables / Considerations	Timing / Next Steps
	• Blakes / LSB to work with MAG on a second constitutional law opinion from Peter Hogg • TD engaged through OFA to provide financial advice <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs • SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • LRC package for OESP enhancements (50% increase, expanded eligibility) approved by LRC and Cabinet. o Implementation on May 1 to align with OEB decision to end OESP charge on May 1, and to finance program through variance account. • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • SNAP to work with TBS map out how funds will flow from fiscal plan after legislation passes <u>Considerations</u> • Ministry is working with OEB on how the OESP enhancement will be announced as part of a communications exercise. • Positive progress with OEB on implementation: o OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts o Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to transition from OESP variance (approx. $100 million) to finance the program to financing with tax funds. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • On-reserve eligibility considerations require discussion with Chiefs of Ontario • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. • April 7, 2017: Briefing for Advisory Committee members <u>Considerations</u> • Legislative changes not required.	**April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information. March 31, 2017, information provided to the FAO
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP <u>Recent Action Items</u> • Provide AG technical briefing presentation used in media lock-up on OFHP in advance of the technical briefing	• March 2017: Cabinet submissions provided to AG • April 19, 2017: Preliminary discussion on (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment <u>Recent Action Items</u> • MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall)	• Initial discussion on March 31, 2017

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 13, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB / Blakes)
    - OPG Update
    - IESO Update
    - OEB Update

2) OPG Letter

3) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

4) Update on Action Items / Policy Matrix

Notes:

DRAFT: April 11, 2017

[Letterhead of Minister of Energy]

April [●], 2017

Bernard Lord
Board Chair
Ontario Power Generation Inc.
700 University Avenue, 19th Floor
Toronto, Ontario
M5G 1X6

Dear Mr. Lord:

I am writing further to the Premier's news release of March 2, 2017, in which the Province announced the Fair Hydro Plan to lower electricity bills by 25 per cent on average for certain customers starting in the summer of 2017, as part of a significant system restructuring that will address long-standing policy challenges and ensure greater fairness. Given OPG's expertise as a participant in the electricity market and its expertise in rate regulated accounting and investment stewardship over significant pension and nuclear funds, I am writing specifically to request OPG's involvement in the implementation of the Global Adjustment Refinancing component of the Fair Hydro Plan

As you will have read, the 25 percent reduction in residential electricity bills referred to in the March 2nd announcement includes the 8 per cent reduction resulting from the rebate of the provincial portion of the harmonized sales tax on electricity bills effective January 1, 2017. The Province has also committed that certain customer bills would not increase by more than the rate of inflation for the four years following the 25 per cent average reduction.

In addition, as you know, Ministry of Energy staff have been working on preparing the draft legislation and regulations to implement the Fair Hydro Plan, with input from the IESO, the OEB, OPG and their respective advisors.

The Province is requesting that OPG, working with the Ministry of Energy, the IESO, the OEB, and their respective advisors, consider and recommend a plan for financing mechanisms that could achieve the Province's objectives for the reduction in consumer bills and the limitation on bill increases outlined above and in the Fair Hydro Plan, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan.

In particular, the Province would like OPG's financing plan to consider, among other things, structures and methods that would permit viable refinancing of a portion of the Global

Adjustment to reduce electricity prices for certain of today's electricity ratepayers, with the costs of the refinancing to be recovered over a period of up to 30 years, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan. We would expect the financing plan to include:

i) potential structures for the financing, which may include, as appropriate, a special purpose vehicle created for the financing;

ii) potential financing mechanisms and instruments, including senior debt and subordinated debt; and

iii) identification of the capital markets and jurisdictions that can be accessed to finance the rate mitigation.

The Province recognizes the need to provide OPG with the necessary assurances with respect to recovery of the principal, interest, and operating and other costs of any financing and will address the specific requirements identified by OPG and its financial advisors, including in the pending legislation and regulations that will govern the mechanics and requirements of the financing entity. We would also request that your plan identify any amendments to OPG's governing legislation and constating documents needed to facilitate the implementation of the financing plan in a commercial manner.

We would further expect that the financing plan would be implemented in an effective and cost-efficient manner by OPG.

I look forward to receiving a detailed plan that has the support of the OPG Board of Directors by June 1, 2017.

Yours truly,

The Honourable Glenn Thibeault
Minister of Energy

From:	John Kim
To:	Bruno Amara
Subject:	FW: Rate Mitigation Implementation Meeting - April 6, 2017
Date:	Thursday, April 06, 2017 8:31:23 PM
Attachments:	Action Items - April 6.docx ATT00001.htm

Fyi.

From: Ronald Kwan
Sent: April-06-17 8:30 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 6, 2017

From: Gadi Mayman
Sent: April 6, 2017 8:08 PM
To: Ronald Kwan; Mike Manning; Ken Kandeepan
Cc: Anna Strathy; Gavin He
Subject: Fwd: Rate Mitigation Implementation Meeting - April 6, 2017

Begin forwarded message:

> **From:** "Katona, Keley (ENERGY)" <Keley.Katona@ontario.ca>
> **Date:** April 6, 2017 at 6:24:56 PM EDT
> **To:** "Hume, Steen (ENERGY)" <Steen.Hume@ontario.ca>, "Sermat-Harding, Kaili (ENERGY)" <Kaili.Sermat-Harding@ontario.ca>, "Reid, Michael (ENERGY)" <Michael.Reid@ontario.ca>, "Calwell, Carolyn (ENERGY/MEDEI/MRI)" <Carolyn.Calwell@ontario.ca>, "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)" <jeffrey.lyash@opg.com>, "HARTWICK Ken -FINANCE (ken.hartwick@opg.com)" <ken.hartwick@opg.com>, Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>, "Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)" <maryanne.aldred@ontarioenergyboard.ca>, "Campbell, Bruce (bruce.campbell@ieso.ca)" <bruce.campbell@ieso.ca>, "Kim Marshall (Kim.Marshall@ieso.ca)" <Kim.Marshall@ieso.ca>, "Thompson, Scott (MOF)" <Scott.Thompson@ontario.ca>, "Angus, Helen (TBS)" <Helen.Angus@ontario.ca>, "Davidson, Steven (CAB)" <Steven.Davidson@ontario.ca>, 'Martine Band'

<Martine.Band@ontarioenergyboard.ca>, 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>, "Mayman, Gadi (OFA)" <Gadi.Mayman@ofina.on.ca>, "LEE John -TREASURY" <john.s.lee@opg.com>
Cc: "Imbrogno, Serge (ENERGY)" <Serge.Imbrogno@ontario.ca>, "Teliszewsky, Andrew (ENERGY)" <Andrew.Teliszewsky@ontario.ca>, "Whittington, Matt (ENERGY)" <Matt.Whittington@ontario.ca>, "Baker, Carys (ENERGY)" <Carys.Baker@ontario.ca>, "MacIntyre, Kyle (TBS)" <Kyle.MacIntyre@ontario.ca>, "McLean, David (MOF)" <David.McLean@ontario.ca>, "Foster, Robert (CAB)" <Robert.Foster@ontario.ca>, "jordan.penic@ieso.ca" <jordan.penic@ieso.ca>, "'sarah.branco@ontarioenergyboard.ca'" <sarah.branco@ontarioenergyboard.ca>, "Turnevicius, Lorraine" <lorraine.turnevicius@ieso.ca>, "catriona.king@opg.com" <catriona.king@opg.com>, "Bungaro-Yemec, Francesca (ENERGY)" <Francesca.Bungaro-Yemec@ontario.ca>
Subject: RE: Rate Mitigation Implementation Meeting - April 6, 2017

Attached are the action items from today's meeting.

From: Katona, Keley (ENERGY)
Sent: April-05-17 5:10 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Mayman, Gadi (OFA); LEE John -TREASURY
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Bungaro-Yemec, Francesca (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,
Please find attached material for tomorrow's meeting.
Keley

Action Items – April 6, 2017

Global Adjustment Refinancing

- Legislation pens down April 21 for May 4 introduction
- OPG / IESO / Blakes to provide feedback on document that will provide instructions to Leg Counsel today
- MOs/PO meeting on Friday
- OPG providing shareholder resolution to OPG Board committee tomorrow and will be provided to Ministry following that
- OEB working with Ministry to finalize comfort letter

Affordability Fund

- Briefing of Advisory Committee scheduled for April 7

RRRP, OESP , FN Rate

- SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each
- SNAP working with MOF / CRA on waiving wet signature

ICI

- ESP / Comms continue to work with chamber of commerce / CME on outreach campaigns to business communities

Bill Presentment

- MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall)

Other Items

- AG meeting on April 19 will walk through a technical briefing deck (OFA / ENERGY / MOF / TBS to attend)

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan; Adam Prokop
Cc:	Salman Qadir
Subject:	FW: Rate Mitigation Implementation Meeting - April 6, 2017
Date:	Wednesday, April 05, 2017 5:36:10 PM
Attachments:	Agenda_Weekly Rate Mitig Implmentation Group_Mar 6.docx ATT00001.htm Consolidated - OFHP Matrix - Week of April 3.docx ATT00002.htm FHP Policy Foundations 04 04 2017 v.3.docx ATT00003.htm

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Fyi.

From: Ronald Kwan
Sent: Wednesday, April 05, 2017 5:29 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Rate Mitigation Implementation Meeting - April 6, 2017

Hi John,

FYI.

Ron

Begin forwarded message:

> **From:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>
> **Date:** April 5, 2017 at 5:22:25 PM EDT
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Mike Manning <Mike.Manning@ofina.on.ca>
> **Cc:** Anna Strathy <Anna.Strathy@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
> **Subject: Fw: Rate Mitigation Implementation Meeting - April 6, 2017**
>
> ---
> From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
> Sent: Wednesday, April 5, 2017 5:09 PM
> To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
> Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt

Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,
Please find attached material for tomorrow's meeting.
Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca<mailto:Keley.Katona@Ontario.ca>
4th Floor, Hearst Block, 900 Bay Street

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 6, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

3) Bill Presentment (SNAP)

4) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 3, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation • Defining mitigation and recovery mechanism; and • Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg. 95/05) • Shareholder Resolution (work with OPG to determine form) • Third Party Technical Report re Long Lived Assets (TBD) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market	• IESO Board meeting on April 11, 2017 (TBD) – ESP to present on OFHP • AG briefing on April 19, 2017 (TBD) • Provide comfort level to allow OEB to include in May 2017 RPP • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	• OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • Legislative walk-through and working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Tuesday to work through issues related to legislation • LSB / Blakes to brief OPCD on legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap • Blakes / LSB to work with MAG on a second constitutional law	

Item	Key Deliverables / Considerations	Timing / Next Steps
	opinion from Peter Hogg • TD being engaged through OFA to provide financial advice • ESP to make presentation on GA financing at upcoming IESO Board meeting <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP/LSB working on LRC package for OESP enhancements • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • Board decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. <u>Considerations</u> • Legislative changes not required.	**April 7, 2017:** • Briefing for Advisory Committee members **April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) • ESP to consider implications of dropping below 500kw threshold due to investments in conservation <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • Ministry preparing responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion on April 19, 2017 (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment	• Initial discussion on March 31, 2017

Policy and Legal Foundations for the Proposed Ontario Fair Hydro Plan Act
April 4, 2017

Creating the Regulatory Framework

- Principles will link the benefit of the "Green Generation Initiative" with the regulatory cost that future rate payers will pay
- Need to name and articulate "Green Generation Initiative"

Fair Allocation Plan

- Policy direction around intergenerational funding will be established by the Minister of Energy
- The Fair Allocation Plan has been determined for the 1st four years, as set out in the March 2nd announcement
- Should there be a process around the Fair Allocation Plan [or as necessary]?
- [Role for the OEB?]

Treasury Plan

- Created by OPG to implement the Fair Allocation Plan
- Will pass through actual costs and expenses of funding obligations incurred
- 3 components:
    - Treasury Plan must be compliant with principles and parameters of the Fair Allocation Plan;
    - The Plan must match maturities to allocations under the Fair Allocation Plan, as well as achieve funding efficiencies and cost management articulated in the Fair Allocation Plan; and
    - Implementation
- Should [Minister?] [OEB?] review [and approve?] the Treasury Plan? At what point in process?

Establishment of the Regulatory Asset

- Right to recover from rate payers, through collection by LDCs and IESO, the regulatory charge, late fees, interest established by legislation
- IESO may dispose of (by assignment, transfer, sale, etc.) its right, title and interest in the Regulatory Asset
- Legislation will create property rights and allow for security interests in the Regulatory Asset
- [Role of the OEB in establishing the Regulatory Asset?]
- Role of OPG in acquiring the asset?

Ensuring Collectability

- Clearly defined class of rate payers that receive and pay for the benefit
- Charges are irrevocable
- LDCs have duty to invoice rate payers for the charge
- IESO and LDCs have duty to collect charges as agent and pay remittances to IESO
- IESO has duty to pay remittances to the Regulatory Asset Owner
- Non-by-passability – subject rate payers who opt to go off grid to a penalty (prepayment)?
- True up mechanism to reconcile collections with incurrences
- Province shall not take steps to reduce, alter, impair or terminate the Regulatory Asset or collection

OEB Role

- [Inspect books and records?]

DRAFT

- [Approve administrative costs?]
- [Prudence review of financing costs?]
- [Consequences of OEB review?]
    - Ability to review
    - Ability to review and make recommendations (non-binding)
    - Review and approve or refer back for reconsideration (binding)

Provincial Guarantee

- Scope / Triggers / Consequences / Form

DRAFT

From: Gavin He
To: John Kim; Bruno Amara
Subject: FW: Rate Mitigation Implementation Meeting - April 25, 2017
Date: Wednesday, April 26, 2017 8:21:56 AM
Attachments: Action Items - April 25.docx

Hi John/Bruno,

FYI.

Regards,
Gavin He

From: Gadi Mayman
Sent: Tuesday, April 25, 2017 11:28 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 25, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Tuesday, April 25, 2017 4:30 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken - FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY); Martin Schlaepfer (MOF)
Subject: RE: Rate Mitigation Implementation Meeting - April 25, 2017

Please find attached action items from today's meeting.

From: Katona, Keley (ENERGY)
Sent: April-24-17 5:02 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); ''jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)'; 'HARTWICK Ken -FINANCE (ken.hartwick@opg.com)'; 'Rosemaire Leclair'; 'Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)'; 'Campbell, Bruce (bruce.campbell@ieso.ca)'; 'Kim Marshall (Kim.Marshall@ieso.ca)'; Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine

Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Mayman, Gadi (OFA); 'LEE John -TREASURY'
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); 'jordan.penic@ieso.ca'; 'sarah.branco@ontarioenergyboard.ca'; 'Turnevicius, Lorraine'; 'catriona.king@opg.com'; Bungaro-Yemec, Francesca (ENERGY); Schlaepfer, Martin (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 25, 2017

Good afternoon,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

Action Items – April 25, 2017

1) Global Adjustment
    - LSB / Blakes turning around comments received over the weekend; new draft of the legislation will be circulated later today or early tomorrow
    - Comments on next draft of legislation will be due Wednesday to keep on track with Friday pens down on legislation
    - E&Y opinion on track
    - OPG undertaking modelling but initial borrowing amount will come from formula in legislation
    - Ministry working with Navigant on report (interim report expected in a couple of weeks followed by a final report)
    - CoS to discuss inflation provision with PO to confirm comfort with including it in regulation vs legislation
    - IESO working with KPMG on opinion (draft tracking for later this week)
    - IESO to discuss Board assurances with Ministry later this week
    - OEB continues to work through a few issues with LSB (e.g. role in review of admin costs, timing of revised RPP, why there needs to be an OEB objective)
    - MOF and ENERGY Ministers will be signatories to springing guarantee, performance guarantee and protection to boards

2) Other OFHP Items
    - RRRP, OESP, FN
        - New turn of social legislation expected today for comment by Wednesday to meet Friday pens down timeline
        - Ministry sorting through issue with Dubreuilville to ensure the legislation is permissive enough to allow them to be eligible
        - Ministry meeting with COO tomorrow on FN rate implementation
        - Ministry to meet with MCSS re: taking over OESP administration
    - Affordability Fund
        - Hydro One to prepare letters that will go out to social service agencies
    - ICI
        - Ministry continues to work with CME / OCC on targeted outreach

3) Other Items
    - IGS continues to work with MOF / TBS on equity injection to ensure we have appropriate approvals for appropriation room this fiscal year, needs to be included in Estimates so approvals required on Thursday
    - OFA working with TD on content to be included in TB submission on financial viability
    - MO to work with MOF / TBS MOs to request their Ministers for debate on May 15th and 16th

From:	Ronald Kwan
To:	John Kim; Emily Kerr; Bruno Amara
Cc:	Gavin He
Subject:	FW: Rate Mitigation Implementation Meeting - March 30, 2017
Date:	Thursday, March 30, 2017 5:10:46 PM
Attachments:	Action Items March 30.docx

Hi,

Please review. Any comments?

Ron

From: Gadi Mayman
Sent: March-30-17 16:34
To: Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - March 30, 2017

Different parts of this that each of you may be interested in. If you have any questions after you've read it, please let me know and I can fill in the blanks.

Gadi

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Thursday, March 30, 2017 4:33 PM
To: Steen Hume (CAB) <Steen.Hume@ontario.ca>; Kaili Sermat-Harding (ENERGY) <Kaili.Sermat-Harding@ontario.ca>; Michael Reid (ENERGY) <Michael.Reid@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com) <jeffrey.lyash@opg.com>; HARTWICK Ken - FINANCE (ken.hartwick@opg.com) <ken.hartwick@opg.com>; Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca) <maryanne.aldred@ontarioenergyboard.ca>; Campbell, Bruce (bruce.campbell@ieso.ca) <bruce.campbell@ieso.ca>; Kim Marshall (Kim.Marshall@ieso.ca) <Kim.Marshall@ieso.ca>; Scott Thompson (CAB) <Scott.Thompson@ontario.ca>; Helen Angus (MOHLTC) <Helen.Angus@ontario.ca>; Steven Davidson (MTCS) <Steven.Davidson@ontario.ca>; 'Martine Band' <Martine.Band@ontarioenergyboard.ca>; 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; LEE John -TREASURY <john.s.lee@opg.com>
Cc: Serge Imbrogno (ENERGY) <Serge.Imbrogno@ontario.ca>; Andrew Teliszewsky (ENERGY) <Andrew.Teliszewsky@ontario.ca>; Matt Whittington (ENERGY) <Matt.Whittington@ontario.ca>; Baker, Carys (ENERGY) <Carys.Baker@ontario.ca>; Kyle MacIntyre (MOF) <Kyle.MacIntyre@ontario.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Robert Foster (MOF) <Robert.Foster@ontario.ca>; jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'

<sarah.branco@ontarioenergyboard.ca>; Turnevicius, Lorraine <lorraine.turnevicius@ieso.ca>; catriona.king@opg.com

Subject: RE: Rate Mitigation Implementation Meeting - March 30, 2017

Good afternoon,
Please find attached the action items from this morning's meeting.
Keley

From: Katona, Keley (ENERGY)
Sent: March-29-17 5:15 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); ''jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)'; 'HARTWICK Ken -FINANCE (ken.hartwick@opg.com)'; 'Rosemaire Leclair'; 'Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)'; 'Campbell, Bruce (bruce.campbell@ieso.ca)'; 'Kim Marshall (Kim.Marshall@ieso.ca)'; Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Mayman, Gadi (OFA); 'LEE John -TREASURY'
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; 'Turnevicius, Lorraine'; catriona.king@opg.com
Subject: Rate Mitigation Implementation Meeting - March 30, 2017

Good afternoon,

Please find attached material for discussion at the weekly rate mitigation implementation working group meeting.

Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Action Items – Thursday March 30, 2017

1) GA Refinancing
   - ENERGY / Blakes / IESO / OEB / OPG / OPCD to meet on Tuesday to work through issues related to legislation
   - LSB / Blakes to brief OPCD on legislation
   - KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions
   - Blakes / OPG to work through financing issues related to 10% cap
   - Blakes / LSB to work with MAG on a second constitutional law opinion from Peter Hogg
   - TD being engaged through OFA to provide financial advice
   - ESP to make presentation on GA financing at upcoming IESO Board meeting
   - OEB to continue to work with Ministry LSB on comfort letter / OEB doesn't need letter until mid-April
2) Affordability Fund
   - Briefing being scheduled for advisory committee
   - Trust will establish process for accessing funds by Summer
3) RRRP / OESP / FN Rate
   - SNAP working on LRC materials for OESP tracking to April 10 LRC
   - SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes
   - SNAP meeting with OEB / MCSS on options for automatic enrolment
   - SNAP to sit down with COO next week on FN Rate
   - SNAP to review Toronto Hydro issues
4) ICI
   - ESP working on LRC approval package tracking to April 10 LRC
   - Outreach with OCC / CME ongoing
5) Other items
   - LSB to draft memo to LDCs letting them know about legislative issue related to advertising

From:	John Kim
To:	Bruno Amara
Subject:	FW: Rate Mitigation Implementation Meeting - March 23, 2017
Date:	Thursday, March 23, 2017 5:36:55 PM
Attachments:	Rate Mitigation Implementation Action Items March 23.docx

Fyi.

From: Ronald Kwan
Sent: Thursday, March 23, 2017 5:05 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - March 23, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Thursday, March 23, 2017 4:39 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken - FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com
Subject: RE: Rate Mitigation Implementation Meeting - March 23, 2017

Please find attached action items discussed at today's meeting.

From: Katona, Keley (ENERGY)
Sent: March-22-17 2:08 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); ''jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)'; 'HARTWICK Ken -FINANCE (ken.hartwick@opg.com)'; 'catriona.king@opg.com'; 'Rosemaire Leclair'; 'Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)'; 'Sarah Branco'; 'Campbell, Bruce (bruce.campbell@ieso.ca)'; 'Turnevicius, Lorraine'; 'Kim Marshall (Kim.Marshall@ieso.ca)'; Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB)
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca
Subject: Rate Mitigation Implementation Meeting - March 23, 2017

Good afternoon,

Please find attached material for discussion at the weekly rate mitigation implementation working group meeting.

Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Action Items – March 23rd, 2017

1) GA Refinancing
    - AG briefing on April 19, 2017
    - Legislative Drafting
        - Legislation to be complete by April 17 , drafting instructions are in circulation
        - OPG to undertake modelling on assets / determine whether rating agency risk to proposed structure
        - OPG / IESO to determine who will finance / hold the asset until it goes to the market
    - OPG Update
        - OPG / LSB continue to work on shareholder direction / resolution
        - OPG continues to work on indemnification of Board issue
        - OPG to embed OFA/ENERGY (as necessary) in their ongoing internal discussions
        - OPG, ENERGY and IESO to continue discussions around refining refinancing modelling
    - IESO Update
        - IESO to discuss LDC issues with OEB
        - IESO to work through legislation / accounting opinion
    - OEB Update
        - OEB decision this week on removing OESP from bill as of May 1st
        - OEB to work with ENERGY to finalize RPP comfort letter
2) Affordability Fund
    - No follow ups, except that everything is on track to be finalized for this week
3) RRRP / OESP / FN Rate
    - OESP reg to continue to track to April 10th LRC
    - MOF / OEB / ENE continues to work with CRA on "wet signature"
    - OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation
4) ICI
    - ICI to continue to track to April 10th LRC / materials being finalized
    - TPA being finalized with OCC / discussions ongoing with CME
    - ESP to continue to meet with MEDG / MOECC / MOL on broader issues for business
5) Other items
    - Ministry to begin work on bill presentment / add as agenda item for next week

From:	Ronald Kwan
To:	John Kim; Emily Kerr
Subject:	FW: Rate Mitigation Implementation Meeting - March 23, 2017
Date:	Thursday, March 23, 2017 5:05:17 PM
Attachments:	Rate Mitigation Implementation Action Items March 23.docx

---

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Thursday, March 23, 2017 4:39 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken - FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
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Subject: RE: Rate Mitigation Implementation Meeting - March 23, 2017

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To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); ''jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)'; 'HARTWICK Ken -FINANCE (ken.hartwick@opg.com)'; 'catriona.king@opg.com'; 'Rosemaire Leclair'; 'Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)'; 'Sarah Branco'; 'Campbell, Bruce (bruce.campbell@ieso.ca)'; 'Turnevicius, Lorraine'; 'Kim Marshall (Kim.Marshall@ieso.ca)'; Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB)
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca
Subject: Rate Mitigation Implementation Meeting - March 23, 2017

Good afternoon,

Please find attached material for discussion at the weekly rate mitigation implementation working group meeting.

Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Action Items – March 23rd, 2017

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        - OPG continues to work on indemnification of Board issue
        - OPG to embed OFA/ENERGY (as necessary) in their ongoing internal discussions
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        - IESO to discuss LDC issues with OEB
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5) Other items
    - Ministry to begin work on bill presentment / add as agenda item for next week

From:	Ronald Kwan
To:	John Kim; Emily Kerr; Bruno Amara
Cc:	Gavin He
Subject:	FW: Rate Mitigation Implementation Meeting - March 30, 2017
Date:	Thursday, March 30, 2017 5:11:20 PM
Attachments:	Agenda_Weekly Rate Mitig Implmentation Group_March 30.docx Consolidated - OFHP Matrix - March 27 (3).docx

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And this one too, please.

Thanks,
Ron

From: Gadi Mayman
Sent: March-29-17 23:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - March 30, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Wednesday, March 29, 2017 5:15 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken - FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
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Subject: Rate Mitigation Implementation Meeting - March 30, 2017

Good afternoon,

Please find attached material for discussion at the weekly rate mitigation implementation working group meeting.

Keley

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Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca

4th Floor, Hearst Block, 900 Bay Street

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 30, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB / Blakes)
    - OPG Update
    - IESO Update
    - OEB Update

2) Affordability Fund (CRED)

3) RRRP, OESP and FN (SNAP)
    - Mechanics and timing of moving RRPP from ratebase to taxbase

4) ICI (ESPD)

5) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of March 27, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation: o Defining mitigation and recovery mechanism; and o Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg.429/04) • Shareholder Declaration and Resolution • Third Party Technical Report re Long Lived Assets (TBD) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market • OPG to embed OFA/Energy (as necessary) in their ongoing	• AG briefing on April 19, 2017 (TBD) • Provide comfort level to allow OEB to include in May 2017 RPP • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution / declaration. OPG to continue to consider requirements for enhanced indemnification for Board member **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes will continue to work through legislative drafting issues • LSB to consider contempt of legislature issue • Legislation to be complete April 17, 2017, first draft to be available for review week of March 27, 2017 <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	

Item	Key Deliverables / Considerations	Timing / Next Steps
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 • Fall 2017 implementation (per Cabinet Minute)
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • Board decision this week on removing OESP from bill as of May 1. <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% +	• Report back to TB/MBC by Spring 2017 • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	new eligibility – Potentially early Spring. • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. Currently engaging OEB. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 17: ENERGY received $100M in CRED's Green Energy Initiatives TP line • March 23 and 24: Trust Deed and TPA executed. Process to transfer funds underway <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	**April to May 31 2017:** • Advisory Committee recommends Board of Trustees; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust.

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP to consider providing support to CME • ESP to consider implications of dropping below 500kw threshold due to investments in conservation <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 15, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC on April 10, 2016 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • Ministry preparing responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion on April 19, 2017 (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment	• Initial discussion on March 31, 2017

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan
Subject:	FW: Rate Mitigation Implementation
Date:	Friday, March 17, 2017 7:53:35 AM
Attachments:	Consolidated - OFHP Matrix -Week March 13.docx TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx Agenda_Weekly Rate Mitig Implmentation Group_March 15.docx

Fyi.

From: Ronald Kwan
Sent: Thursday, March 16, 2017 4:53 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John, Emily,

FYI on the attached.

Emily, note point 8 in the legislative issues document:

- restrictions on consumer group's ability to "opt-out" or by-pass the charge (to avoid de-valuing the asset)

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From: Gadi Mayman
Sent: March-16-17 16:42
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

FYI

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Thursday, March 16, 2017 2:33 PM
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: Rate Mitigation Implementation

Hi Gadi,
Per your discussion with the Deputy, we'll be adding you to our weekly rate mitigation implementation meetings. Attached, for reference, is the material from this week's meeting.

Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Implementation of Ontario's Fair Hydro Plan
Week of March 13, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• LDC working group kick-off March 14, 2017 • Report back to TB/MBC by Spring 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Fall 2017 implementation (per Cabinet Minute)
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – Potentially early Spring. • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. Currently engaging OEB. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M

Item	Key Deliverables / Considerations	Timing / Next Steps
	• Work with LDCs to consider any bill messaging.	• Program in place in 2017 (per Cabinet Minute)
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	• Ongoing engagement with Hydro One, LSB, OPCD, CSD on development of Transfer Payment Agreement (TPA) and Trust Declaration (including sharing of drafts for comment) • Hydro One to finalize establishment of Trust by March 17, 2017 **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st **April to May 2017:** • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with

Item	Key Deliverables / Considerations	Timing / Next Steps
		final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC on March 11, 2016 • Effective May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD)	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
	Considerations • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' Considerations • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
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• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs Considerations • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
	o Agencies (i.e., IESO, OPG, OEB and H1)	
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion. • Awaiting formal letter requesting additional information
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion in April 2017 (TBD)

Summary of Legislative Changes

What follows is a summary of five categories of legislative issues that are currently being dealt with by the legislative team. There is significant overlap between the categories (for example, some of the basic legislative changes could be categorized as changes that are designed to address market considerations).

The drafting of the legislative amendments will be a very detailed and iterative process and drafts of the legislation are currently under review by the team. We also anticipate that the provisions will be reviewed by other experts (for example, US counsel and investment banking advisor). However, we do not anticipate that the primary categories of amendment will change.

1. Basic Legislative Changes Required to Bring the Program into Existence

For example:

- explain policy intent (inter-generational funding)
- revise the general objects/purposes of the legislation to permit the program
- add new objects and rights for IESO to permit IESO's role in the program
- add obligations for IESO to make payments with respect to amounts borrowed under the securitization, the repayment of interest costs or charges, and costs related to the operation or management of the trust or other entity
- provide authority to OPG to establish trust or other entity and its right to recover interest costs, charges, and operating and management costs
    - allow for Trust/SPV to warehouse funds
- define the regulatory asset and allow it to be bought/sold between IESO and Trust/SPV
- define (generally) the group of consumers who benefit from GA refinancing and who will be required to repay it
- establishment of the IESO's obligations

2. Legislative Provisions to Establish the Regulatory Role of the OEB

For example,

- OEB role in creation of the regulatory asset
- OEB role with respect to review of calculations as to amounts to be paid by ratepayers to satisfy the debt obligations

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- OEB role with respect to “true-up” of GA calculations (annual or semi-annual)
- OEB role regarding administrative costs of the trust or entity

3. Legislative Provisions Related to OPG

For example,

- provisions to ensure that OPG has the legal authority to implement the program
- provisions to ensure that OPG’s assets are properly ring-fenced
- provisions to ensure OPG has authority to create subsidiaries or other entities and transact with the Trust/SPV

4. Legislative Provisions to Address Market Considerations

For example, provisions to provide,

- the creation of the new trust (or other) entity and ensure that it is bankruptcy remote
- clear identification of consumer groups to whom the program applies (“RPP eligible”)
- restrictions on consumer group’s ability to “opt-out” or by-pass the charge (to avoid de-valuing the asset)
- establishment of the owner’s clear right to the regulatory asset to enable payment of principal and interest to investors
- a re-set or true-up mechanism to enable the owner of the payment stream to account for differences between anticipated and actual performance of the GA
- a system to deal with sharing/pro-rating if the ratepayer pays less than the invoiced amount
- irrevocability of the owner’s property right (or a surrogate for irrevocability)
- the establishment of a “true sale” of the regulatory asset

5. Addition of Legislative Provisions (to be considered)

- cap maximum GA refinancing in a year by dollar value
- set a maximum interest amount for GA refinancing debt after year 5

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- cap GA refinancing based on OPG financial ratios
- fix the date until which rate payers receive a discount for GA refinancing
- fix a total amount to be borrowed as “principal”, at which point further borrowing must service the debt and does not reduce GA paid by rate payers
- determine how surpluses in collections are to be applied (e.g. reinvest in GA reduction before new debt)
- cap increases to rate payer bills at no more than ■% in a year

DRAFT

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 15, 2017

Agenda

1) GA Refinancing
    - OPG Update
    - IESO Update
    - OPG Update
    - Legislative Drafting (LSB / Blakes)

2) Affordability Fund (CRED)

3) RRRP, OESP and FN (SNAP)

4) ICI (ESPD)

Notes:

From:	Ronald Kwan
To:	John Kim; Emily Kerr
Cc:	Gavin He
Subject:	FW: Rate Mitigation Implementation
Date:	Thursday, March 16, 2017 4:53:20 PM
Attachments:	Consolidated - OFHP Matrix -Week March 13.docx TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx Agenda_Weekly Rate Mitig Implmentation Group_March 15.docx

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Subject: Rate Mitigation Implementation

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Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Implementation of Ontario's Fair Hydro Plan
Week of March 13, 2017

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• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
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	• Shareholder Declaration and Resolution
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	  o IESO line of credit to bridge from May-July;
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	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
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• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• LDC working group kick-off March 14, 2017 • Report back to TB/MBC by Spring 2017

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- define (generally) the group of consumers who benefit from GA refinancing and who will be required to repay it
- establishment of the IESO's obligations

2. Legislative Provisions to Establish the Regulatory Role of the OEB

For example,

- OEB role in creation of the regulatory asset
- OEB role with respect to review of calculations as to amounts to be paid by ratepayers to satisfy the debt obligations

DRAFT

- OEB role with respect to “true-up” of GA calculations (annual or semi-annual)
- OEB role regarding administrative costs of the trust or entity

3. Legislative Provisions Related to OPG

For example,

- provisions to ensure that OPG has the legal authority to implement the program
- provisions to ensure that OPG’s assets are properly ring-fenced
- provisions to ensure OPG has authority to create subsidiaries or other entities and transact with the Trust/SPV

4. Legislative Provisions to Address Market Considerations

For example, provisions to provide,

- the creation of the new trust (or other) entity and ensure that it is bankruptcy remote
- clear identification of consumer groups to whom the program applies (“RPP eligible”)
- restrictions on consumer group’s ability to “opt-out” or by-pass the charge (to avoid de-valuing the asset)
- establishment of the owner’s clear right to the regulatory asset to enable payment of principal and interest to investors
- a re-set or true-up mechanism to enable the owner of the payment stream to account for differences between anticipated and actual performance of the GA
- a system to deal with sharing/pro-rating if the ratepayer pays less than the invoiced amount
- irrevocability of the owner’s property right (or a surrogate for irrevocability)
- the establishment of a “true sale” of the regulatory asset

5. Addition of Legislative Provisions (to be considered)

- cap maximum GA refinancing in a year by dollar value
- set a maximum interest amount for GA refinancing debt after year 5

DRAFT

- cap GA refinancing based on OPG financial ratios
- fix the date until which rate payers receive a discount for GA refinancing
- fix a total amount to be borrowed as “principal”, at which point further borrowing must service the debt and does not reduce GA paid by rate payers
- determine how surpluses in collections are to be applied (e.g. reinvest in GA reduction before new debt)
- cap increases to rate payer bills at no more than ■% in a year

DRAFT

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 15, 2017

Agenda

1) GA Refinancing
    - OPG Update
    - IESO Update
    - OPG Update
    - Legislative Drafting (LSB / Blakes)

2) Affordability Fund (CRED)

3) RRRP, OESP and FN (SNAP)

4) ICI (ESPD)

Notes:

From: John Kim
To: John Kim
Subject: FW: Rate Mitigation Implementation
Date: Friday, March 10, 2017 4:51:26 PM
Attachments: Summary of Work Plan.docx
OFHP Gov and Delievery Structure - March 9.docx
Agenda_Weekly Rate Mitig Implmentation Group_March 9cc.docx
2017-03-08 Consolidated - OFHP Matrix - March 9_v2 ksh.docx
Moody"s - Securities Backed by Utility Cost Recovery Charges Jun 2015.pdf

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-----Original Message-----
From: Ronald Kwan
Sent: Friday, March 10, 2017 9:39 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John,

FYI.

I saved to S:\Users\CEF\Hydro 2017\Electricity Prices\OFHP

Ron

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-10-17 08:35
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation

Good Morning,

Please see the following update and attached materials relating to Energy's kick off Fair Hydro Plan implementation discussion.

Scott

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: Thursday, March 9, 2017 5:23 PM
To: McLean, David (MOF)
Cc: Kennedy, Nancy (MOF); Young, Gwendolynne (MOF)
Subject: RE: Rate Mitigation Implementation

Hi David,

I thought I would share a high level summary of this morning's discussion.

The meeting started with a conversation around structures and how Energy plans to move all of the elements of the Fair Hydro Plan forward. In essence, these Thursday meetings will become a regular occurrence (next week is scheduled for Wednesday). This will act as a feeder for issue specific working groups in order to have a single window for reporting in on progress and issues that require resolution. See attached "OFHP Gov and Delivery

Structure" for details. There will also be regular DM level updates to keep respective Ministries apprised of progress.

GA Smoothing (Blakes Update)

Blakes, who has been engaged by the Ministry of Energy, provided an overview of the Long Island Power Authority securitization structure that has been referenced several times as a model (albeit smaller) for the GA Smoothing mechanism. Here are some high level details:

o Nuclear facility mothballed and facility costs needed to be repaid over time
o In part as a result of this large liability, LIPA's credit rating was weak increasing borrowing costs
o Created framework in legislation, allowed for a financing order every time the separate entity went out for financing (abbreviated hearing to review merits of case)
o Role of Financial Regulator (closer to OSC than OEB):
· Public Authority Control Board
· Abbreviated hearing
· Form over substance, to ensure calculations are correct
· Regulator needed to be sure that issuance designed to receive lower cost borrowing + meet objectives of the legislation
· If stakeholders want to challenge the validity of order, had 30 days to do so and then foreclosed, after 30 days bonds could be issued
o Asset:
· Order and charges irrevocable: right that could not be changed
· True-up mechanism: ability to adjust collections from end users to ensure cover principle and interest
· Ensure consumers cannot bypass system (pay as long as connected to the grid, whether consuming or not)
· Charge not more than 10% of bill
· Set up as a "true sale" - rights around asset protected
o Unique features (would not apply in Canada):
· State pledge: state would not introduce legislation or do anything to affect rights of assets or bondholders
§ Creates a constitutional right, if reversed is a "taking of the government" which results in a particular process
· Bankruptcy: bondholders can make an application to court to direct payment to bondholders
· While these elements cannot be replicated in the same way in Canada, Blakes suggests it will be important to enable similar protections under the Canadian legal framework to the extent possible

Blakes also walked through key elements that the market and rating agencies will seek in order to ensure this is financeable (according to Blakes there will be an expectation that mitigation measures will be in place for each):
· Size and breadth of customer base
· Non-bypassability
· Volatility of policy environment
· For more details, Blakes suggests reading the attached Moody's guide

GA Smoothing (OPG Update)

OPG walked through the attached summary workplan providing an update on key buckets of work including that included a number of touch points with the OFA and MoF focused on process for borrowing and equity infusion both at inception and ongoing approvals. Note that OPG is conceiving of each incremental debt issuance as an amendment to the borrowing agreement rather than as individual tranches in order to avoid differentiation between bondholder priority thereby minimizing long term interest costs. Note that working groups are beginning to meet to think in more detail to think through these issues.

GA Smoothing (IESO Update)

· IESO is thinking through what needs to be in legislation, regulation, market rules and in an agreement with OPG.

· IESO is also working with OPCD and KPMG to finalize its revised financials to incorporate its market books.

IESO will file its audited financial statement with the AG in May. Further thought is needed on timing and level of engagement with the AG's office.

· On a related note, the AG has reached out through OPCD for an initial briefing on the Fair Hydro Plan.

GA Smoothing (Legislative Drafting Update)

· Energy legal expects to have first drafts to share shortly for input

· Targeting mid-April for approvals

GA Smoothing (General)

· OEB was also included in the discussion and continues to have concerns about its role in the process. Further consideration is required in the context of accounting and financing imperatives

Other Updates

· Work on the RRRP, OESP and First Nations rate is progressing in parallel. There was some talk of inclusion of these elements in the Budget Bill, but no certainty on whether that would be possible from a timing perspective.

· The Affordability Fund is moving on a more expedited path. A first draft of the TPA has been shared with Hydro One for review. Hydro One is working to establish the Trust.

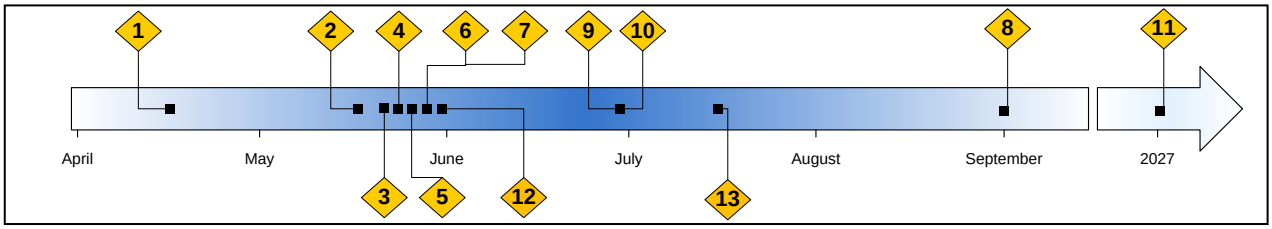
Thanks,
Scott

Summary of Work Plan

Below is an overview of the elements of the draft workplan to set up a trust special purpose financing vehicle (SPV) that would hold the claim on future customers and the debt issued to fund the payment to the IESO in accordance with Ontario's Fair Hydro Plan. All elements of the work plan will consider the key requirements of OPG with respect to elimination or mitigation of risks.

Workplan Overview

The draft workplan below is divided into major components required to set up the trust SPV as part of Ontario's Fair Hydro Plan. Each major component is divided into sub-components that provide further aspects / characteristics / requirements.



[Note deleted #13]

1. Legislative Requirements [Stakeholders: OPG, IESO, OEB, MOE]

a. Characteristics of Regulatory Asset

Key aspects will include collection rights, claim/counterclaim protection, future governmental action protection, saleability into SPV, protection from seller's creditors, OEB regulatory asset recognition, oversight of administration costs and recovery mechanism, and true-up process.

b. *Legislative amendments to implement the structure*

- Provisions in the Electricity Act (and OPG's articles) will be amended/updated to allow flexibility in OPG's corporate structure.
  1. These amendments would be similar in nature to previous amendments made to Hydro One's governing provisions in the Electricity Act.
  2. The amendments would, for example, allow OPG to create and operate through subsidiaries, and also enable OPG to raise financing through public offering of debt. (OPG may need to raise some financing to fund a portion of the subordinated debt going into the trust.)
- The electricity legislation will be amended to implement the deferral and financing of the GA, including amendments:
  1. to reflect that the IESO may defer collection of a portion of the GA;
  2. to create a "regulatory asset" consisting of the right to recover, over time, the amount GA being deferred, together with interest and other financing costs;
  3. to allow the IESO to sell that regulatory asset to a third party (the trust/financing vehicle);
  4. that authorizes the OEB to recognize the regulatory asset (which will likely comprise a deferral account) and allows the owner of the asset to recover the principal amount and financing costs for the GA deferral over time; and
  5. that also provides the OEB with no rights (or very limited rights) to review the terms on which the GA deferral is recovered (i.e. the interest rate, other financing costs and the amortization period). (This is needed to make the GA deferral financeable in the capital markets.)

2. Financing Process [Stakeholders: OPG, IESO]

a. Set up Financing Vehicle

The SPV will be established with a simplified trust indenture to facilitate flexible financing (issue short and long term debt in Canadian and US markets, ability to warehouse, ability to enter into cross currency swaps). The sole purpose of the SPV will be to acquire the

regulatory asset and raise debt. A financial service and management agreement with OPG will also be required.

b. Oversight

Appropriate oversight structure to be established independent of OPG management to review and monitor financing strategies, operating budgets and results of SPV. Reporting and monitoring requirements of Province, IESO and OEB and OPG to be determined.

c. Operations

Processes will be established for deal execution, operating cash management, regulatory reviews and credit rating agency reviews. Agreements will be established to define relationships with IESO (sales & servicing), billing payment and other administrative services, banking arrangements, subordinated debt agreement with OPG.

3. Equity Injection Process [Stakeholders: OPG, Ministry of Energy, Ministry of Finance]

The Province will require Treasury Board approval for periodic appropriations to fund equity injections into OPG. OPG Board approval will be required to issue a specified number of shares that can be periodically issued to the Province. The actual number of shares issued will be based on IESO forecast of funds required.

4. IESO and Trust Operational Process [Stakeholders: OPG, IESO]

Establish processes to facility the SPV's purchase of the IESO's regulatory asset, including timing (notice periods), frequency, fund flows, GA shortfall forecasts and true-up mechanisms.

5. Debt Issuance – General Planning [Stakeholders: OPG, MOF]

Develop debt issuance plan considering need for liquidity/working capital, debt profile (short/long term), debt composition (senior/subordinated), marketing plan (Canada and US), financing amounts and timing, credit rating agency legal opinions and required approvals.

6. Debt Issuance – Subordinated [Stakeholders: OPG]

Establish subordinated debt characteristics (risk, return, cash flows), repayment terms, issue frequency/timing and required approvals.

7. Debt Issuance – Short Term [Stakeholders: OPG]

Ability to aggregate and warehouse using short term CP / ABCP.

8. Debt Issuance – Long Term [Stakeholders: OPG]

Key steps in establishing OPG external long term debt financing include the following:

- Select bank advisor for Canadian market
- Select bank advisor for US market
- Select credit rating agency and establish high investment grade requirements
- Seek credit rating agency legal opinions (identified above in section 5)
- Ongoing financial and legal due diligence
- Credit rating agency presentation and follow-up Q&A
- Obtain preliminary or pre-sale rating
- Develop maturity profile if flexibility available
- Draft and execute offering memorandum, agency agreement and other legal documents
- Prepare marketing materials
- Marketing, road shows, investor one-on-ones
- Investor due diligence and collection of expression of interest
- USD denominated debt - ISDA contracts for swap arrangements and potential collateral requirements

9. **Recovering Interest, Administration and Other Financing Costs from IESO [Stakeholders: OPG, IESO]**

   Establish basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency.

10. **Paying Interest, Administration and Other Financing Costs to Providers [Stakeholders: OPG, IESO]**

    Establish bank accounts, basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency, required approvals and administration agreements (either with trust administrator or OPG).

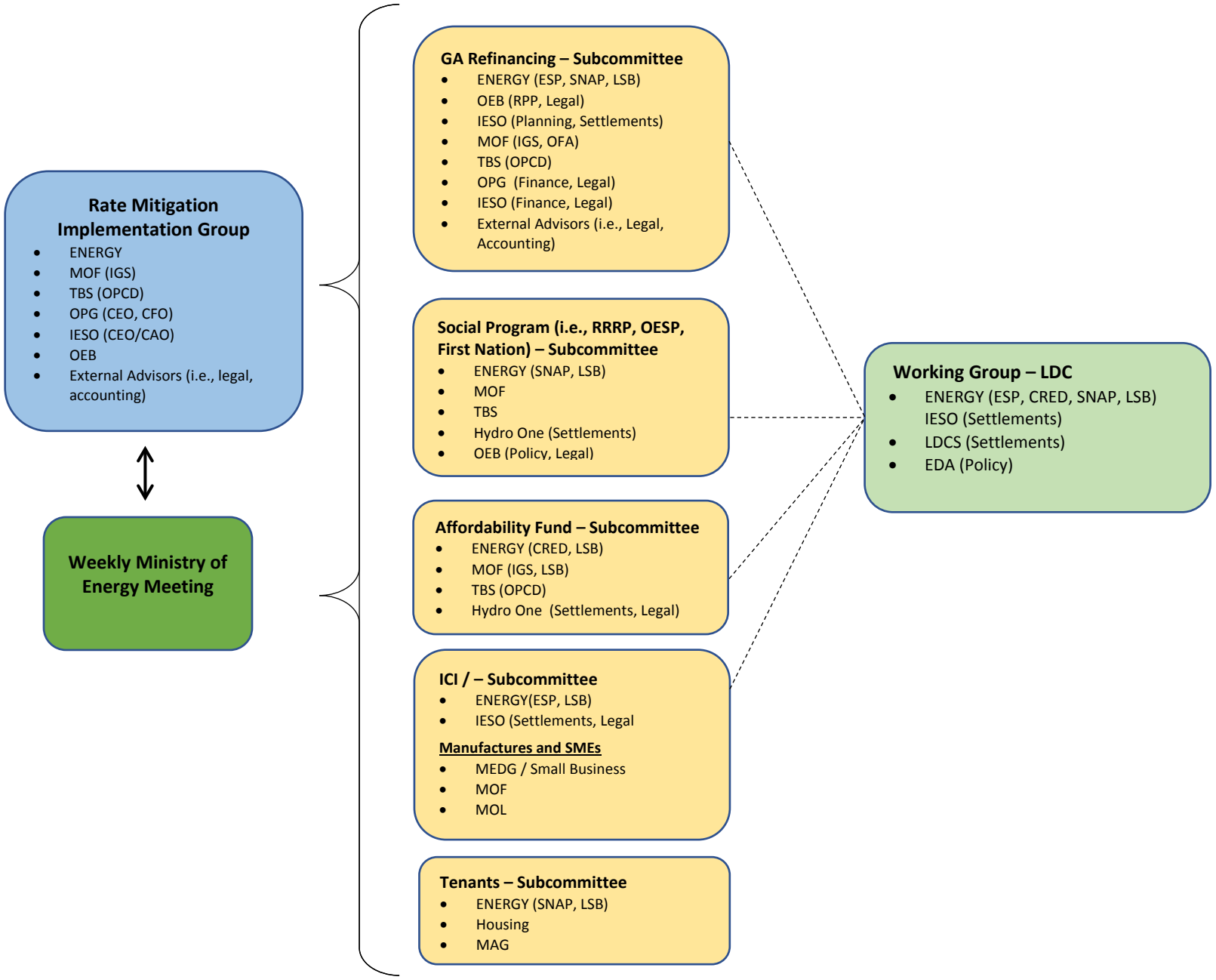
11. **Recovering Principal from IESO [Stakeholders: OPG, IESO]**

    Establish basis of recovery (regulatory asset schedule / actual financing amortization or maturity / other method), documentation requirements, approvals, timing and frequency.

12. **Accounting Requirements and Process [Stakeholders: OPG]**

    Establish overall accounting requirements for trust, regulated asset, consolidation with OPG, operational control of trust and restrictions on regulated asset. See further details in Appendix A – Terms Necessary for OPG to Consolidate the Global Adjustment Trust.

Governance and Delivery Structure for Implementation of Ontario's Fair Hydro Plan



WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 9, 2017

Agenda

1) Governance / Delivery Structure – Overview (ESPD)

2) GA Refinancing
    - Overview of US models (Blakes)
    - OPG Update
    - IESO Update
    - Legislative Drafting (LSB)

3) Affordability Fund (CRED)

4) RRRP, OESP and FN (SNAP)

5) ICI (ESPD)

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of March 6, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• Report back to TB/MBC by Spring 2017 • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB and OEB	• Legislation • Regulation (TBD) <u>Considerations</u> • Reach out to OEB to consider whether surplus funding of ~$100M could be used to increase OESP credits by 50%. Regulation can be updated quickly (need to consider whether posting on EBR is required). • Consider whether revised directive needed to continue having OEB administer program. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	**Week of March 6, 2017:** • TBC/MBC approval (March 6th) • CAB approval (March 8th) • Follow up calls with several LDCs and EDA to provide updates and outline proposed principles for the Fund (Ongoing engagement with Hydro One, LSB, OPCD, CSD on principles and establishment of Trust and development of Transfer Payment Agreement (TPA) (including sharing of drafts for comment); **Week of March 13, 2017:** • Hydro One to finalize establishment of Trust by March 17th • Continue development of TPA, including circulating near to final version by March 17th **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st

Item	Key Deliverables / Considerations	Timing / Next Steps
		April to May 2017: • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • RR posting is typically a minimum of 45-days for all regulatory changes affecting business to allow for review/comment. **Note:** RR posting is not a legal requirement but a best practice. • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC [DATE] • Effective May 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) FAO Engagement		
• ENERGY, MOF/OFA, FAO	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion.

MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Moody's Global Approach to Rating Securities Backed by Utility Cost Recovery Charges

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Analyst Contacts

Xiaochao Wang
Vice President - Senior Analyst
+1.212.553.4143
xiaochao.wang@moodys.com

William Black
Managing Director - Structured Finance
+1.212.553.4563
william.black@moodys.com

Daniel Kolter
Managing Director-Structured Finance
+49.69.70730.797
danield.kolter@moodys.com

Ning Loh
Vice President-Senior Credit Officer
+44.20.7772.5535
ning.loh@moodys.com

Surveillance

Irina Faynzilberg
Vice President - Senior Credit Officer
+1.212.553.7297
irina.faynzilberg@moodys.com

MOODY'S CLIENT SERVICES:
New York: +1.212.553.1653
Tokyo: +81.3.5408.4100
London: +44.20.7772.5454
Hong Kong: +852.3551.3077
Sydney: +61.2.9270.8100
Singapore: +65.6398.8308

» contacts continued on the last page

1. Scope

This methodology describes our global approach to rating securities backed by utility cost recovery charges ("UCRC" bonds) that are established by special legislation and financing orders issued by utility regulatory bodies. The charges backing UCRC bonds rated by us have been established by state legislation and state utility regulatory bodies in the United States. For UCRC bonds backed by charges authorized by other jurisdictions, we will analyze the specifics of the securitization's legal framework and regulations – and their implications for the quality of the protections afforded to investors – within the general methodology described in this report.

Examples of cost recovery charges include those imposed to cover certain costs of utility companies that had been incurred in a regulated environment but could no longer be recovered because of a change to a more competitive regulatory regime (i.e., charges sometimes referred to as "stranded utility charges") and those imposed to pay for environmental cleanups, clean energy or for the replenishment of reserves established for repair of facilities damaged by natural calamities, such as hurricanes or tornados.

2. Executive Summary

A utility cost recovery charge bond is a bond typically issued by a special purpose entity of a utility, or by a special borrowing conduit, to recover specified costs as authorized by special legislation and a specific financing order issued by a public service utility regulatory body. The bonds are backed by a property right created by the legislation, which provides the right to impose and collect special charges on customers' monthly electric bills.

This credit rating methodology was republished on June 22, 2015 containing an updated monitoring section and minor other editorial updates in the body of the text and in certain footnotes. The content of this Credit Rating Methodology has not been changed.

The credit quality of the bonds depends on the legal strength of the property right, which in turn depends on the specifics of the related legislation and financing order, and on the size and economic strength and stability of the ratepayer base against which the costs will be imposed. Therefore, our credit analysis of cost recovery charge securitizations focuses on both legal and economic factors that can influence whether investors in UCRC bonds will be paid as promised.

On the legal side, we assess the extent to which the legislation that authorizes the cost recovery charges[1] provides clear procedures for insulating the transaction from claims by other parties and is likely to be able to withstand challenges to rescind or alter the legislation prior to the legal final maturity of the securities. Consequently, our analysis focuses on the extent to which the legislation clearly defines (1) a property that entitles the owner of such property – the utility, or, in some cases, a public trust or corporation – the right to charge the fee throughout the life of the security in an amount sufficient to make full and timely repayment of principal and interest on the security, (2) the process the owner of the property must follow to charge the fee, (3) the irrevocable right of the owner of the property to transfer the fee to a special purpose financing vehicle for securitization purposes, (4) the type of financing vehicle authorized to issue securities backed by the fees, and (5) the process to be followed such that the transfer would be viewed as a "true sale" of the rights to the cash flows rather than a pledge of collateral for a financing for transactions that involve the transfer of the property from the utility to the issuer. A true sale would insulate the securitization from a bankruptcy of the utility, protecting securitization investors from potential claims on the cash flows by the utility's creditors. In addition, we assess whether the legislation has a government pledge not to impair the utility's right to collect the charges and the consequences if the government nevertheless does attempt to impair the right.

We also examine the likelihood that other potential claimants, such as other creditors of the financing vehicle if it were to become bankrupt or investors in other securities that have been issued by the utility, might make a successful claim on the cash flows of the securitization. Furthermore, we consider the breadth of the market to whom the charge will be applied and the extent to which the charge might be "bypassable," that is, the extent to which current or future customers might be categorized as outside the scope of the applicability of the charge.

Our assessment of the overall legal strength of the property right involves qualitative and judgmental factors. Transactions that are strong with respect to each of such characteristics may achieve the highest rating while the impact of weakening any of the attributes would be evaluated on a case-by-case basis.

On the economic side, our analysis focuses on the likelihood that the charges established by the legislation and accompanying regulations will be sufficient to repay the securitization bonds and on whether the charges might become onerous enough to cause pressure to rescind or alter the charges through future legislative or legal actions. As part of that assessment, we evaluate (1) possible changes in the size and composition of the customer base against whom the fee is to be charged, incorporating an evaluation of the breadth and diversity of the customer base, (2) the likely per capita energy usage (in those cases in which the fee charged is based on the usage amount), and (3) the fee rate, including any mechanism built in by the legislation that enables the fee to be reset over time to offset shortfalls that might develop over the life of the securitization (i.e., the transaction's "true up" mechanism). Generally the true-up mechanism is in effect the most important credit protection for UCRC transactions, limiting the risk that the cost recovery charges will be insufficient to pay off the bonds, thereby limiting the need for traditional sources of credit enhancement such as subordination and reserve funds.[2]

In analyzing a transaction's true-up mechanism, we examine how high rates would need to be set under "stressful" future scenarios to fully pay off the bonds, to assess the risk that onerous future rates might cause pressure to overturn or change the legislation and/or regulations establishing the charges. The variables that we typically "stress" test for UCRC bonds are the base against which the charge is to be

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

[1] Throughout this report we use the terms "cost recovery charges" and "cost recovery fees" interchangeably.

[2] The true-up mechanism also limits the need to analyze the underwriting of the customer base, since the mechanism adjusts for all shortfalls, including those caused by customer defaults.

applied (usually energy usage) and the servicing fee. To obtain a high rating, we would expect that even in a stressful environment, such as one in which energy usage declined dramatically, the charge per customer necessary to pay off the bonds would be reasonably low both in absolute terms and as a percentage of the customer's energy bill. The specific stresses that we place on the variables are issuer-specific and are determined on a case-by-case basis.

In addition, we analyze the implications of other structural features of the securitization that could affect the risk of investor loss. For example, we examine the risk implications of how the cash flows are allocated among the various classes of investors and the other participants in the transaction, and the extent to which any other sources of funds are likely to be sufficient to offset any remaining shortfalls to investors, whether the shortfalls are temporary ("liquidity") or permanent ("credit enhancement").

3. Analyzing the Risk Factors

Because of the unique characteristics of this highly regulated asset class, our credit analysis of UCRC securitizations focuses primarily on the legislation and the true-up mechanism. The degree of certainty that the fees generated through the legislation will be sufficient to pay off the securitizations in full is a complementary aspect of the analysis. .

Depending on the risks and mitigants in the relevant jurisdiction, transaction ratings will typically be positioned between the government rating and the country ceiling. Risks that could lead us to determine transaction ratings to be lower than the country ceiling include, for example, continued high levels of debt burden in a utility system. Such high levels of debt, if deemed unsustainable in the long term, may lead to political pressure to adjust the regulatory framework around the system deficit, with some potential negative impact on the related securitization transactions.

In the following sections, we describe the factors that typically lead to a high degree of certainty and thus high ratings on the bonds.

3.1 Protection against Future Impairment of the Right to Collect the Charges

Utility cost recovery charges are established by special legislation that authorizes the creation of a property right to collect future surcharges on customers' monthly electricity bills as the means to pay back the UCRC bonds. Consequently, we analyze the extent to which investors are protected against the enactment of future legislative changes that would weaken that right. For example, investor risk would be mitigated in a situation in which (1) the legislation contained a pledge by the jurisdiction not to impair the right to collect the special charges until the maturity of the bonds and (2) violation of that pledge would be a violation of law [3].

3.2 Irrevocability of the Financing Order

The legislation is typically accompanied by a financing order issued by the public service commission that authorizes the utilities to impose and collect the surcharges on the customer's monthly electric bill during the term of the bonds. Our analysis assesses whether the financing order is irrevocable, which would protect investors against future adverse changes that may reduce the charges backing the bonds.

3.3 Sufficiency of the Charges and the True-Up Mechanism

The charges are usually assessed as an amount linked to a customer's energy usage. Our analysis considers whether the financing order places any limits on charges – e.g., caps on the levels of charges or limits on the length of time that the charges can be imposed – that might cause the collections to be insufficient to provide for timely payment of the principal and interest on the UCRC bonds. In addition, we analyze whether the period over which the charges are allowed to be levied provides sufficient cushion to pay off the bonds by maturity in the event that collections come in more slowly than originally projected.

[3] Violation of the non-impairment pledge would be a violation of the Contract Clause and the Takings Clause under the Federal and State constitutions.

As part of that analysis, we evaluate the power of any true-up mechanism that is provided for in the legislation and detailed in the financing order to correct for shortfalls that may develop over the life of the securities. A true-up mechanism typically adjusts future fee rates on a scheduled periodic basis (e.g., semiannually or annually) to correct for any under- (or over-) collections in a preceding period and to ensure the full and timely payment of future scheduled debt service, based on updated usage forecasts. The greater the frequency with which the true-up adjustments are made, the less likely that investors will suffer a shortfall at the final maturity date.[4]

That is particularly important as the security approaches the final maturity date; frequent rate adjustments based on then-current projections mitigate the risk that actual collections will deviate substantially from those projections, limiting the possibility of shortfalls at the final maturity date. Consequently, our analysis assesses the conditions under which more frequent true-ups are allowed, especially near the final maturity.[5]

3.4 Non-Bypassability of the Charges

We evaluate whether the charges are "non-bypassable," that is, whether the charges must be collected from all existing and future customers of the utility or its successors or assignees within the utility's service territory, and whether the financing order provides that a severance fee be charged to customers who switch to other service providers within the territory during the life of the bonds. We evaluate any exceptions to the non-bypassabilty rule, and consider the materiality of those exemptions to the cash collections. Charges that cannot be bypassed (i.e., those that cannot be avoided by the customers in the utility's service area) ensure a continuing payer base for the charges, leading to less risk for investors. As described in the Structural Features section (Section 3.8), the power of the true-up mechanism to protect investors is dependent on the non-bypassability of the charges. As a result, non-bypassability (with limited, immaterial exemptions) has been a key factor behind the high ratings that are typically assigned to these transactions, without the need for considerable protection from traditional types of credit protection, such as reserve accounts or subordination.

3.5 Bankruptcy of the Utility

For structures in which the initial owner of the property is a utility, a bankruptcy of the utility could expose securitization investors to the risk that other creditors of the utility might make a claim on the cost recovery charges or that payments to securitization investors might be delayed as a result of an imposition of an automatic stay on payments from the utility company.[6,7] However, that risk would be limited if it were clear that a bankruptcy court would view the transfer of the rights to the charges as a "true sale" of those rights, rather than as a financing of the company. As a result, we analyze whether the legislation clearly establishes the utility's right to receive and transfer the rights to the charges and provides unambiguous procedures for transferring those rights to the financing vehicle as a true sale, and whether those procedures are followed in the financing order.

In cases where the utility is the servicer of the transaction, we analyze whether a bankruptcy of the utility could lead to a disruption in servicing, e.g., billing and collecting. However, given the essential service provided by the utility, we expect that government authorities would intervene to prevent any disruption in servicing that might result from a bankruptcy. As a result, where the servicer is a regulated utility, we view operational risk as low. Consequently, we typically would consider a transaction to be consistent with a Aaa rating even if the servicer were not investment grade, as long as the transaction were structured with some mitigants for operational risk, such as the inclusion of a backup servicer and/or provision for additional liquidity.[8]

[4] Generally, the charges collected rank senior to other charges of a utility system and represent only a small amount of the total revenues of such system .
[5] Transactions typically allow for more frequent true-ups during the "tail period" between the transaction's stated "expected" maturity (determined by the sponsor) and the "legal" final maturity. The legal final maturity is the important date from our rating perspective, the date by which all principal must be repaid.
[6] In some transactions, the property is created by law for the benefit of a public trust or corporation that also is created by the same law. In such cases, the true sale risk would be non-existent as there is no sale or transfer of the property.
[7] For a discussion of how Moody's analyzes legal risks in structured finance transactions, see Moody's Related Research section at the end of this report.
[8] The rating standard for a backup servicer likely would be lower than investment grade, but would depend on the specific facts and circumstances of the transaction and servicer.

In addition, we analyze whether the bankruptcy of the utility could cause a disruption in the remittance of payments by the utility to bondholders. Such a disruption could occur if the remittances of the charges were "commingled" with the other funds of the utility and the bankruptcy court ordered a halt to payments until proper ownership of the funds could be sorted out. Our analysis includes an assessment of the ways in which the utility separates the cost recovery charges received from its other funds and the frequency with which it transfers the funds to the trust.

3.6 Bankruptcy of the Financing Vehicle

Another potential risk to investors in UCRC securitizations is a bankruptcy of the financing vehicle. That could expose investors to the risk that other creditors of the vehicle might make a claim on the cost recovery charges or that payments to investors might be delayed by the imposition of an automatic stay. Consequently, we analyze (1) the likelihood that a third-party creditor would be able to successfully petition the owner of the assets (i.e., the financing vehicle) into an involuntary bankruptcy proceeding or (2) the likelihood that the owner of the assets would voluntarily seek the protection of the bankruptcy courts.

To analyze the likelihood of an involuntary bankruptcy, we assess the characteristics that would mitigate that risk, such as if the financing vehicle had (1) no assets other than the right to the cost recovery charges, (2) no indebtedness other that the securitization debt, (3) limited activities that could give rise to contractual or other liabilities, and (4) agreements with the sponsor and other contracting parties not to petition for the dissolution, liquidation or bankruptcy of the securitization vehicle. Similarly, factors that would mitigate the risk of a voluntary bankruptcy would include (1) charter documents of the owner of the assets that require directors who are independent of the utility and (2) a unanimous vote of directors as a condition to filing a voluntary bankruptcy.

3.7 Economic Factors

Even if the financing order is irrevocable, the charges or the law that authorizes them could be subject to challenge in the courts or to future political pressure to rescind or change them through legislation. That is more likely the higher the charges, i.e., the more the economic incentive for a challenge or in circumstances where the financial imbalances in a utility system increase. Consequently, our economic analysis focuses on the size of the cost recovery charge, both in absolute terms and as a percentage of the customer's energy bill. Typically the percentage of a residential customer's monthly bill devoted to the cost recovery charge is less than 10%.

We typically also look at stressful collection scenarios. For example, in one scenario, we assume (1) that energy usage falls short of the utility's projections[9] by a progressively increasing amount each year (typically 5% per year), (2) that forecasted collections in peak usage months do not materialize (for example, 100% of the collections in the peak month and 50% of the collections in the second highest-usage month), and (3) that the servicing fee is considerably higher than the current, "normal," servicing fee, representing the fee that would be required if the original servicer needed to be replaced in a stressful environment. In another scenario, we typically assume that energy usage is lower than projected by a set amount throughout the life of the securitization (typically 25%). For highly rated transactions, we would expect that the cost recovery charge would remain relatively low even in those highly stressful scenarios.

While the specific stresses that we place on the variables have been quite similar to date, this reflects the fact that all rated transactions to date have involved requests for the highest ratings and been supported by highly diverse, broad-based service areas. However, in general, stresses are issuer-specific and are determined on a case-by-case basis. One of the factors that we use to determine the appropriate stress level for a transaction is the variability of the base against which the charge is applied, for example, the population in the service area or the energy usage in the service area. Customer bases that are less broad-based and diversified tend to be more variable; as a result, we would apply more severe stresses in those situations.

[9] We typically assess the reasonableness of the utility's projections by analyzing (1) the historical energy usage in the utility's service region and the variances between past projections and actual outcomes, and (2) the likely growth in electricity usage in the service area of the utility, taking into account the projected economic growth in the region and the possible competitive impact of technological advances, such as those in the development of solar energy.

In particular, we evaluate the economic diversity of the utility's service region to assess the potential variability in its economic health, which tends to drive changes in population and energy usage. An area that relies on multiple industries for economic growth will likely have a more stable business climate than an area that is dependent on the fortunes of one industry. In the latter case, the area's prospects will falter if that particular industry runs into hard times.

We also consider the mix in the customer base among residential, commercial, and industrial users. A utility with a large residential base relative to commercial and industrial users will tend to have less volatility in energy consumption, since energy consumption by commercial and industrial operations is more closely tied to the business cycle. Furthermore, residential customers are less likely to quickly embrace new energy production technologies and are less likely to cut back energy consumption dramatically if the price of energy were to rise. The higher variability of a commercial and industrial base can be exacerbated further if the service area's customer usage is concentrated in a few large commercial or industrial operations, which could make the overall energy consumption vulnerable if those entities were to decline or leave the area.

3.8 Structural Features

The key structural feature of UCRC transactions is the true-up mechanism. Our rating is highly dependent on the extent to which the mechanism adjusts the charges to correct for past shortfalls or forecasted future shortfalls. The effectiveness of those rate changes in raising funds depends, in turn, on how easily customers can escape the charges and how sensitive electricity usage is to increases in the utility charges. Therefore, our analysis of the true-up mechanism goes together with our analysis of how bypassable the cost recovery charges are and how easily customers can cut back on electricity usage (through alternative sources of energy or conservation). To be consistent with a particular rating, a strong true-up mechanism combined with non-bypassable charges mitigates the need for credit enhancement in the form of alternative sources of funds.

In addition, our analysis of the credit risk of a UCRC transaction incorporates our assessment of the implications of the transaction's cash flow allocation structure (sometimes referred to as the cash flow "waterfall"). In particular, we focus on the seniority of principal and interest payments to the bond's investors *vis-à-vis* payments to other participants. In addition, we analyze the extent to which the transaction has an alternative source of liquidity to pay principal and interest in the event that there is a temporary interruption in the flow of the cost recovery charges. For example, in many transactions there is a capital or reserve account with funds sufficient to pay interest for at least 1-2 months, if needed. Furthermore, we assess the extent to which the credit enhancement that is available in the transaction is likely to be sufficient to offset any shortfalls that might develop in the period between the final true-up adjustment and the maturity of the bonds.

4. Monitoring

In monitoring UCRC transactions, we apply the key components of this methodology. More specifically, we analyze, whether bond balances are in line with the scheduled principal amortization, which indicates the extent to which payments have been in line with our original expectations.

We review the periodic information received and look at whether there has been a draw on the reserve accounts. This data point provides further clues as to the steadiness of the cash flows and accuracy of true-up adjustments.

In addition, we analyze the factors that determine the future strength of the transaction. For example, we monitor any legal or political developments that could indicate an increased risk of changes in the legislation that could impair future cash flows to the transactions. Such risk may materialise, for example, in case of continued high financial imbalances in the system that may lead the system deficit to be viewed as unsustainable over the long-term.

Depending on the jurisdiction, we also follow the rating of the utility as a proxy to assess any changes to the economic health of the service region and the potential for changes in the size and composition of the ratepayer base. Furthermore, we monitor the rating of the utility collecting the charges (as an indicator of its financial condition) to track the risk, typically quite small, that a bankruptcy could lead to disruption in billing and collections and in the remittance of payments to the bondholders.

In other instances, we may be more concerned with the behavior of the regulator of the utility system and less with individual utility companies. This could lead to a lower rating in the space between the local currency ceiling and the sovereign rating or the utility rating.

Thus changes on our expectations and other analytical components could have an impact on the rating of the securities and may result in a reassessment of the rating.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more secondary or cross-sector credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related secondary and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols and Definitions, which is available here, for further information.

» contacts continued from page 1

ADDITIONAL CONTACTS:
Frankfurt: +49.69.2222.7847
Madrid: +34.91.414.3161
Milan: +39.02.3600.6333
Paris: +33.1.7070.2229

Contributor:

Andrew Silver
Andrew Silver contributed to this report as a research consultant

Report Number: SF404788

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INVESTORS SERVICE

From: John Kim
To: John Kim
Subject: FW: Rate Mitigation Implementation
Date: Friday, March 10, 2017 4:51:25 PM
Attachments: Summary of Work Plan.docx
OFHP Gov and Delievery Structure - March 9.docx
Agenda_Weekly Rate Mitig Implmentation Group_March 9cc.docx
2017-03-08 Consolidated - OFHP Matrix - March 9_v2 ksh.docx
Moody"s - Securities Backed by Utility Cost Recovery Charges Jun 2015.pdf

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-----Original Message-----
From: Ronald Kwan
Sent: Friday, March 10, 2017 9:39 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John,

FYI.

I saved to S:\Users\CEF\Hydro 2017\Electricity Prices\OFHP

Ron

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-10-17 08:35
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation

Good Morning,

Please see the following update and attached materials relating to Energy's kick off Fair Hydro Plan implementation discussion.

Scott

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: Thursday, March 9, 2017 5:23 PM
To: McLean, David (MOF)
Cc: Kennedy, Nancy (MOF); Young, Gwendolynne (MOF)
Subject: RE: Rate Mitigation Implementation

Hi David,

I thought I would share a high level summary of this morning's discussion.

The meeting started with a conversation around structures and how Energy plans to move all of the elements of the Fair Hydro Plan forward. In essence, these Thursday meetings will become a regular occurrence (next week is scheduled for Wednesday). This will act as a feeder for issue specific working groups in order to have a single window for reporting in on progress and issues that require resolution. See attached "OFHP Gov and Delivery

Structure" for details. There will also be regular DM level updates to keep respective Ministries apprised of progress.

GA Smoothing (Blakes Update)

Blakes, who has been engaged by the Ministry of Energy, provided an overview of the Long Island Power Authority securitization structure that has been referenced several times as a model (albeit smaller) for the GA Smoothing mechanism. Here are some high level details:

o Nuclear facility mothballed and facility costs needed to be repaid over time
o In part as a result of this large liability, LIPA's credit rating was weak increasing borrowing costs
o Created framework in legislation, allowed for a financing order every time the separate entity went out for financing (abbreviated hearing to review merits of case)
o Role of Financial Regulator (closer to OSC than OEB):
· Public Authority Control Board
· Abbreviated hearing
· Form over substance, to ensure calculations are correct
· Regulator needed to be sure that issuance designed to receive lower cost borrowing + meet objectives of the legislation
· If stakeholders want to challenge the validity of order, had 30 days to do so and then foreclosed, after 30 days bonds could be issued
o Asset:
· Order and charges irrevocable: right that could not be changed
· True-up mechanism: ability to adjust collections from end users to ensure cover principle and interest
· Ensure consumers cannot bypass system (pay as long as connected to the grid, whether consuming or not)
· Charge not more than 10% of bill
· Set up as a "true sale" - rights around asset protected
o Unique features (would not apply in Canada):
· State pledge: state would not introduce legislation or do anything to affect rights of assets or bondholders
§ Creates a constitutional right, if reversed is a "taking of the government" which results in a particular process
· Bankruptcy: bondholders can make an application to court to direct payment to bondholders
· While these elements cannot be replicated in the same way in Canada, Blakes suggests it will be important to enable similar protections under the Canadian legal framework to the extent possible

Blakes also walked through key elements that the market and rating agencies will seek in order to ensure this is financeable (according to Blakes there will be an expectation that mitigation measures will be in place for each):
· Size and breadth of customer base
· Non-bypassability
· Volatility of policy environment
· For more details, Blakes suggests reading the attached Moody's guide

GA Smoothing (OPG Update)

OPG walked through the attached summary workplan providing an update on key buckets of work including that included a number of touch points with the OFA and MoF focused on process for borrowing and equity infusion both at inception and ongoing approvals. Note that OPG is conceiving of each incremental debt issuance as an amendment to the borrowing agreement rather than as individual tranches in order to avoid differentiation between bondholder priority thereby minimizing long term interest costs. Note that working groups are beginning to meet to think in more detail to think through these issues.

GA Smoothing (IESO Update)

· IESO is thinking through what needs to be in legislation, regulation, market rules and in an agreement with OPG.

· IESO is also working with OPCD and KPMG to finalize its revised financials to incorporate its market books.

IESO will file its audited financial statement with the AG in May. Further thought is needed on timing and level of engagement with the AG's office.

· On a related note, the AG has reached out through OPCD for an initial briefing on the Fair Hydro Plan.

GA Smoothing (Legislative Drafting Update)

· Energy legal expects to have first drafts to share shortly for input

· Targeting mid-April for approvals

GA Smoothing (General)

· OEB was also included in the discussion and continues to have concerns about its role in the process. Further consideration is required in the context of accounting and financing imperatives

Other Updates

· Work on the RRRP, OESP and First Nations rate is progressing in parallel. There was some talk of inclusion of these elements in the Budget Bill, but no certainty on whether that would be possible from a timing perspective.

· The Affordability Fund is moving on a more expedited path. A first draft of the TPA has been shared with Hydro One for review. Hydro One is working to establish the Trust.

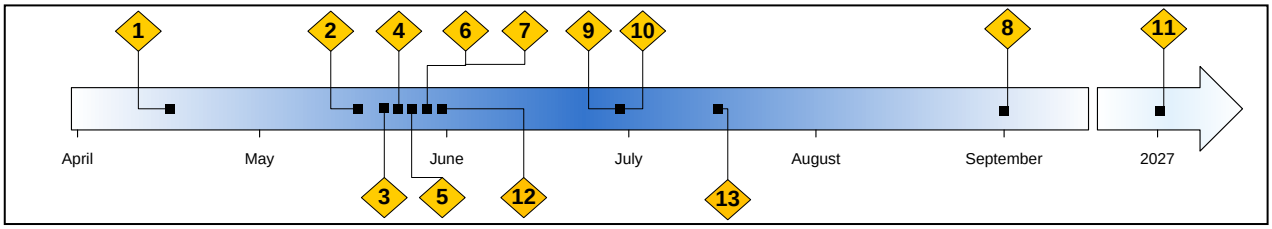
Thanks,
Scott

Summary of Work Plan

Below is an overview of the elements of the draft workplan to set up a trust special purpose financing vehicle (SPV) that would hold the claim on future customers and the debt issued to fund the payment to the IESO in accordance with Ontario's Fair Hydro Plan. All elements of the work plan will consider the key requirements of OPG with respect to elimination or mitigation of risks.

Workplan Overview

The draft workplan below is divided into major components required to set up the trust SPV as part of Ontario's Fair Hydro Plan. Each major component is divided into sub-components that provide further aspects / characteristics / requirements.



[Note deleted #13]

1. Legislative Requirements [Stakeholders: OPG, IESO, OEB, MOE]

a. Characteristics of Regulatory Asset

Key aspects will include collection rights, claim/counterclaim protection, future governmental action protection, saleability into SPV, protection from seller's creditors, OEB regulatory asset recognition, oversight of administration costs and recovery mechanism, and true-up process.

b. *Legislative amendments to implement the structure*

- Provisions in the Electricity Act (and OPG's articles) will be amended/updated to allow flexibility in OPG's corporate structure.
  1. These amendments would be similar in nature to previous amendments made to Hydro One's governing provisions in the Electricity Act.
  2. The amendments would, for example, allow OPG to create and operate through subsidiaries, and also enable OPG to raise financing through public offering of debt. (OPG may need to raise some financing to fund a portion of the subordinated debt going into the trust.)
- The electricity legislation will be amended to implement the deferral and financing of the GA, including amendments:
  1. to reflect that the IESO may defer collection of a portion of the GA;
  2. to create a "regulatory asset" consisting of the right to recover, over time, the amount GA being deferred, together with interest and other financing costs;
  3. to allow the IESO to sell that regulatory asset to a third party (the trust/financing vehicle);
  4. that authorizes the OEB to recognize the regulatory asset (which will likely comprise a deferral account) and allows the owner of the asset to recover the principal amount and financing costs for the GA deferral over time; and
  5. that also provides the OEB with no rights (or very limited rights) to review the terms on which the GA deferral is recovered (i.e. the interest rate, other financing costs and the amortization period). (This is needed to make the GA deferral financeable in the capital markets.)

2. Financing Process [Stakeholders: OPG, IESO]

a. Set up Financing Vehicle

The SPV will be established with a simplified trust indenture to facilitate flexible financing (issue short and long term debt in Canadian and US markets, ability to warehouse, ability to enter into cross currency swaps). The sole purpose of the SPV will be to acquire the

regulatory asset and raise debt. A financial service and management agreement with OPG will also be required.

b. Oversight

Appropriate oversight structure to be established independent of OPG management to review and monitor financing strategies, operating budgets and results of SPV. Reporting and monitoring requirements of Province, IESO and OEB and OPG to be determined.

c. Operations

Processes will be established for deal execution, operating cash management, regulatory reviews and credit rating agency reviews. Agreements will be established to define relationships with IESO (sales & servicing), billing payment and other administrative services, banking arrangements, subordinated debt agreement with OPG.

3. Equity Injection Process [Stakeholders: OPG, Ministry of Energy, Ministry of Finance]

The Province will require Treasury Board approval for periodic appropriations to fund equity injections into OPG. OPG Board approval will be required to issue a specified number of shares that can be periodically issued to the Province. The actual number of shares issued will be based on IESO forecast of funds required.

4. IESO and Trust Operational Process [Stakeholders: OPG, IESO]

Establish processes to facility the SPV's purchase of the IESO's regulatory asset, including timing (notice periods), frequency, fund flows, GA shortfall forecasts and true-up mechanisms.

5. Debt Issuance – General Planning [Stakeholders: OPG, MOF]

Develop debt issuance plan considering need for liquidity/working capital, debt profile (short/long term), debt composition (senior/subordinated), marketing plan (Canada and US), financing amounts and timing, credit rating agency legal opinions and required approvals.

6. Debt Issuance – Subordinated [Stakeholders: OPG]

Establish subordinated debt characteristics (risk, return, cash flows), repayment terms, issue frequency/timing and required approvals.

7. Debt Issuance – Short Term [Stakeholders: OPG]

Ability to aggregate and warehouse using short term CP / ABCP.

8. Debt Issuance – Long Term [Stakeholders: OPG]

Key steps in establishing OPG external long term debt financing include the following:

- Select bank advisor for Canadian market
- Select bank advisor for US market
- Select credit rating agency and establish high investment grade requirements
- Seek credit rating agency legal opinions (identified above in section 5)
- Ongoing financial and legal due diligence
- Credit rating agency presentation and follow-up Q&A
- Obtain preliminary or pre-sale rating
- Develop maturity profile if flexibility available
- Draft and execute offering memorandum, agency agreement and other legal documents
- Prepare marketing materials
- Marketing, road shows, investor one-on-ones
- Investor due diligence and collection of expression of interest
- USD denominated debt - ISDA contracts for swap arrangements and potential collateral requirements

9. **Recovering Interest, Administration and Other Financing Costs from IESO [Stakeholders: OPG, IESO]**

   Establish basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency.

10. **Paying Interest, Administration and Other Financing Costs to Providers [Stakeholders: OPG, IESO]**

    Establish bank accounts, basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency, required approvals and administration agreements (either with trust administrator or OPG).

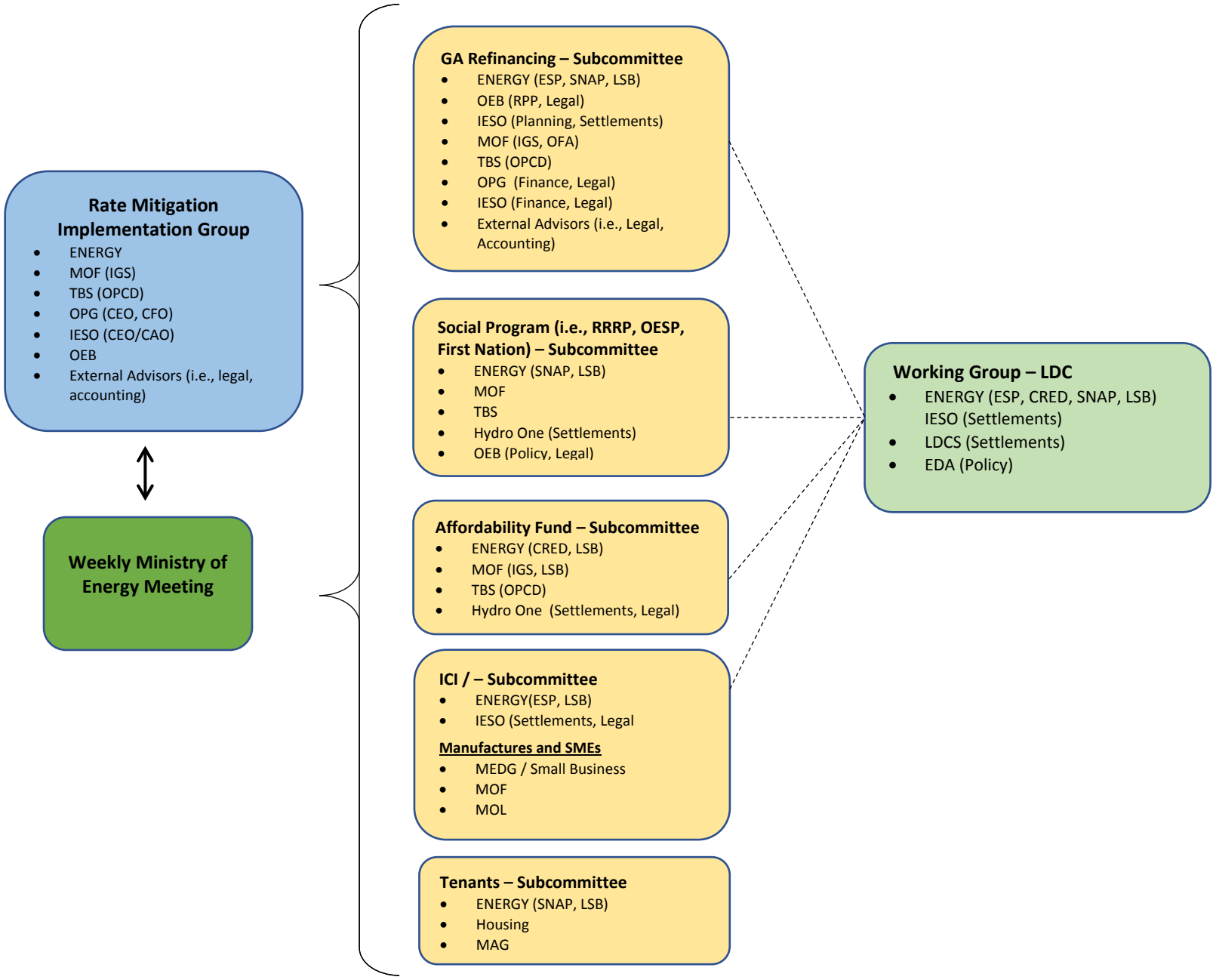
11. **Recovering Principal from IESO [Stakeholders: OPG, IESO]**

    Establish basis of recovery (regulatory asset schedule / actual financing amortization or maturity / other method), documentation requirements, approvals, timing and frequency.

12. **Accounting Requirements and Process [Stakeholders: OPG]**

    Establish overall accounting requirements for trust, regulated asset, consolidation with OPG, operational control of trust and restrictions on regulated asset. See further details in Appendix A – Terms Necessary for OPG to Consolidate the Global Adjustment Trust.

Governance and Delivery Structure for Implementation of Ontario's Fair Hydro Plan



WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 9, 2017

Agenda

1) Governance / Delivery Structure – Overview (ESPD)

2) GA Refinancing
    - Overview of US models (Blakes)
    - OPG Update
    - IESO Update
    - Legislative Drafting (LSB)

3) Affordability Fund (CRED)

4) RRRP, OESP and FN (SNAP)

5) ICI (ESPD)

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of March 6, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• Report back to TB/MBC by Spring 2017 • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB and OEB	• Legislation • Regulation (TBD) <u>Considerations</u> • Reach out to OEB to consider whether surplus funding of ~$100M could be used to increase OESP credits by 50%. Regulation can be updated quickly (need to consider whether posting on EBR is required). • Consider whether revised directive needed to continue having OEB administer program. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	**Week of March 6, 2017:** • TBC/MBC approval (March 6th) • CAB approval (March 8th) • Follow up calls with several LDCs and EDA to provide updates and outline proposed principles for the Fund (Ongoing engagement with Hydro One, LSB, OPCD, CSD on principles and establishment of Trust and development of Transfer Payment Agreement (TPA) (including sharing of drafts for comment); **Week of March 13, 2017:** • Hydro One to finalize establishment of Trust by March 17th • Continue development of TPA, including circulating near to final version by March 17th **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st

Item	Key Deliverables / Considerations	Timing / Next Steps
		April to May 2017: • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • RR posting is typically a minimum of 45-days for all regulatory changes affecting business to allow for review/comment. **Note:** RR posting is not a legal requirement but a best practice. • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC [DATE] • Effective May 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) FAO Engagement		
• ENERGY, MOF/OFA, FAO	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion.

MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Moody's Global Approach to Rating Securities Backed by Utility Cost Recovery Charges

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Analyst Contacts

Xiaochao Wang
Vice President - Senior Analyst
+1.212.553.4143
xiaochao.wang@moodys.com

William Black
Managing Director - Structured Finance
+1.212.553.4563
william.black@moodys.com

Daniel Kolter
Managing Director-Structured Finance
+49.69.70730.797
danield.kolter@moodys.com

Ning Loh
Vice President-Senior Credit Officer
+44.20.7772.5535
ning.loh@moodys.com

Surveillance

Irina Faynzilberg
Vice President - Senior Credit Officer
+1.212.553.7297
irina.faynzilberg@moodys.com

MOODY'S CLIENT SERVICES:
New York: +1.212.553.1653
Tokyo: +81.3.5408.4100
London: +44.20.7772.5454
Hong Kong: +852.3551.3077
Sydney: +61.2.9270.8100
Singapore: +65.6398.8308

» contacts continued on the last page

1. Scope

This methodology describes our global approach to rating securities backed by utility cost recovery charges ("UCRC" bonds) that are established by special legislation and financing orders issued by utility regulatory bodies. The charges backing UCRC bonds rated by us have been established by state legislation and state utility regulatory bodies in the United States. For UCRC bonds backed by charges authorized by other jurisdictions, we will analyze the specifics of the securitization's legal framework and regulations – and their implications for the quality of the protections afforded to investors – within the general methodology described in this report.

Examples of cost recovery charges include those imposed to cover certain costs of utility companies that had been incurred in a regulated environment but could no longer be recovered because of a change to a more competitive regulatory regime (i.e., charges sometimes referred to as "stranded utility charges") and those imposed to pay for environmental cleanups, clean energy or for the replenishment of reserves established for repair of facilities damaged by natural calamities, such as hurricanes or tornados.

2. Executive Summary

A utility cost recovery charge bond is a bond typically issued by a special purpose entity of a utility, or by a special borrowing conduit, to recover specified costs as authorized by special legislation and a specific financing order issued by a public service utility regulatory body. The bonds are backed by a property right created by the legislation, which provides the right to impose and collect special charges on customers' monthly electric bills.

This credit rating methodology was republished on June 22, 2015 containing an updated monitoring section and minor other editorial updates in the body of the text and in certain footnotes. The content of this Credit Rating Methodology has not been changed.

The credit quality of the bonds depends on the legal strength of the property right, which in turn depends on the specifics of the related legislation and financing order, and on the size and economic strength and stability of the ratepayer base against which the costs will be imposed. Therefore, our credit analysis of cost recovery charge securitizations focuses on both legal and economic factors that can influence whether investors in UCRC bonds will be paid as promised.

On the legal side, we assess the extent to which the legislation that authorizes the cost recovery charges[1] provides clear procedures for insulating the transaction from claims by other parties and is likely to be able to withstand challenges to rescind or alter the legislation prior to the legal final maturity of the securities. Consequently, our analysis focuses on the extent to which the legislation clearly defines (1) a property that entitles the owner of such property – the utility, or, in some cases, a public trust or corporation – the right to charge the fee throughout the life of the security in an amount sufficient to make full and timely repayment of principal and interest on the security, (2) the process the owner of the property must follow to charge the fee, (3) the irrevocable right of the owner of the property to transfer the fee to a special purpose financing vehicle for securitization purposes, (4) the type of financing vehicle authorized to issue securities backed by the fees, and (5) the process to be followed such that the transfer would be viewed as a "true sale" of the rights to the cash flows rather than a pledge of collateral for a financing for transactions that involve the transfer of the property from the utility to the issuer. A true sale would insulate the securitization from a bankruptcy of the utility, protecting securitization investors from potential claims on the cash flows by the utility's creditors. In addition, we assess whether the legislation has a government pledge not to impair the utility's right to collect the charges and the consequences if the government nevertheless does attempt to impair the right.

We also examine the likelihood that other potential claimants, such as other creditors of the financing vehicle if it were to become bankrupt or investors in other securities that have been issued by the utility, might make a successful claim on the cash flows of the securitization. Furthermore, we consider the breadth of the market to whom the charge will be applied and the extent to which the charge might be "bypassable," that is, the extent to which current or future customers might be categorized as outside the scope of the applicability of the charge.

Our assessment of the overall legal strength of the property right involves qualitative and judgmental factors. Transactions that are strong with respect to each of such characteristics may achieve the highest rating while the impact of weakening any of the attributes would be evaluated on a case-by-case basis.

On the economic side, our analysis focuses on the likelihood that the charges established by the legislation and accompanying regulations will be sufficient to repay the securitization bonds and on whether the charges might become onerous enough to cause pressure to rescind or alter the charges through future legislative or legal actions. As part of that assessment, we evaluate (1) possible changes in the size and composition of the customer base against whom the fee is to be charged, incorporating an evaluation of the breadth and diversity of the customer base, (2) the likely per capita energy usage (in those cases in which the fee charged is based on the usage amount), and (3) the fee rate, including any mechanism built in by the legislation that enables the fee to be reset over time to offset shortfalls that might develop over the life of the securitization (i.e., the transaction's "true up" mechanism). Generally the true-up mechanism is in effect the most important credit protection for UCRC transactions, limiting the risk that the cost recovery charges will be insufficient to pay off the bonds, thereby limiting the need for traditional sources of credit enhancement such as subordination and reserve funds.[2]

In analyzing a transaction's true-up mechanism, we examine how high rates would need to be set under "stressful" future scenarios to fully pay off the bonds, to assess the risk that onerous future rates might cause pressure to overturn or change the legislation and/or regulations establishing the charges. The variables that we typically "stress" test for UCRC bonds are the base against which the charge is to be

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

[1] Throughout this report we use the terms "cost recovery charges" and "cost recovery fees" interchangeably.

[2] The true-up mechanism also limits the need to analyze the underwriting of the customer base, since the mechanism adjusts for all shortfalls, including those caused by customer defaults.

applied (usually energy usage) and the servicing fee. To obtain a high rating, we would expect that even in a stressful environment, such as one in which energy usage declined dramatically, the charge per customer necessary to pay off the bonds would be reasonably low both in absolute terms and as a percentage of the customer's energy bill. The specific stresses that we place on the variables are issuer-specific and are determined on a case-by-case basis.

In addition, we analyze the implications of other structural features of the securitization that could affect the risk of investor loss. For example, we examine the risk implications of how the cash flows are allocated among the various classes of investors and the other participants in the transaction, and the extent to which any other sources of funds are likely to be sufficient to offset any remaining shortfalls to investors, whether the shortfalls are temporary ("liquidity") or permanent ("credit enhancement").

3. Analyzing the Risk Factors

Because of the unique characteristics of this highly regulated asset class, our credit analysis of UCRC securitizations focuses primarily on the legislation and the true-up mechanism. The degree of certainty that the fees generated through the legislation will be sufficient to pay off the securitizations in full is a complementary aspect of the analysis. .

Depending on the risks and mitigants in the relevant jurisdiction, transaction ratings will typically be positioned between the government rating and the country ceiling. Risks that could lead us to determine transaction ratings to be lower than the country ceiling include, for example, continued high levels of debt burden in a utility system. Such high levels of debt, if deemed unsustainable in the long term, may lead to political pressure to adjust the regulatory framework around the system deficit, with some potential negative impact on the related securitization transactions.

In the following sections, we describe the factors that typically lead to a high degree of certainty and thus high ratings on the bonds.

3.1 Protection against Future Impairment of the Right to Collect the Charges

Utility cost recovery charges are established by special legislation that authorizes the creation of a property right to collect future surcharges on customers' monthly electricity bills as the means to pay back the UCRC bonds. Consequently, we analyze the extent to which investors are protected against the enactment of future legislative changes that would weaken that right. For example, investor risk would be mitigated in a situation in which (1) the legislation contained a pledge by the jurisdiction not to impair the right to collect the special charges until the maturity of the bonds and (2) violation of that pledge would be a violation of law [3].

3.2 Irrevocability of the Financing Order

The legislation is typically accompanied by a financing order issued by the public service commission that authorizes the utilities to impose and collect the surcharges on the customer's monthly electric bill during the term of the bonds. Our analysis assesses whether the financing order is irrevocable, which would protect investors against future adverse changes that may reduce the charges backing the bonds.

3.3 Sufficiency of the Charges and the True-Up Mechanism

The charges are usually assessed as an amount linked to a customer's energy usage. Our analysis considers whether the financing order places any limits on charges – e.g., caps on the levels of charges or limits on the length of time that the charges can be imposed – that might cause the collections to be insufficient to provide for timely payment of the principal and interest on the UCRC bonds. In addition, we analyze whether the period over which the charges are allowed to be levied provides sufficient cushion to pay off the bonds by maturity in the event that collections come in more slowly than originally projected.

[3] Violation of the non-impairment pledge would be a violation of the Contract Clause and the Takings Clause under the Federal and State constitutions.

As part of that analysis, we evaluate the power of any true-up mechanism that is provided for in the legislation and detailed in the financing order to correct for shortfalls that may develop over the life of the securities. A true-up mechanism typically adjusts future fee rates on a scheduled periodic basis (e.g., semiannually or annually) to correct for any under- (or over-) collections in a preceding period and to ensure the full and timely payment of future scheduled debt service, based on updated usage forecasts. The greater the frequency with which the true-up adjustments are made, the less likely that investors will suffer a shortfall at the final maturity date.[4]

That is particularly important as the security approaches the final maturity date; frequent rate adjustments based on then-current projections mitigate the risk that actual collections will deviate substantially from those projections, limiting the possibility of shortfalls at the final maturity date. Consequently, our analysis assesses the conditions under which more frequent true-ups are allowed, especially near the final maturity.[5]

3.4 Non-Bypassability of the Charges

We evaluate whether the charges are "non-bypassable," that is, whether the charges must be collected from all existing and future customers of the utility or its successors or assignees within the utility's service territory, and whether the financing order provides that a severance fee be charged to customers who switch to other service providers within the territory during the life of the bonds. We evaluate any exceptions to the non-bypassabilty rule, and consider the materiality of those exemptions to the cash collections. Charges that cannot be bypassed (i.e., those that cannot be avoided by the customers in the utility's service area) ensure a continuing payer base for the charges, leading to less risk for investors. As described in the Structural Features section (Section 3.8), the power of the true-up mechanism to protect investors is dependent on the non-bypassability of the charges. As a result, non-bypassability (with limited, immaterial exemptions) has been a key factor behind the high ratings that are typically assigned to these transactions, without the need for considerable protection from traditional types of credit protection, such as reserve accounts or subordination.

3.5 Bankruptcy of the Utility

For structures in which the initial owner of the property is a utility, a bankruptcy of the utility could expose securitization investors to the risk that other creditors of the utility might make a claim on the cost recovery charges or that payments to securitization investors might be delayed as a result of an imposition of an automatic stay on payments from the utility company.[6,7] However, that risk would be limited if it were clear that a bankruptcy court would view the transfer of the rights to the charges as a "true sale" of those rights, rather than as a financing of the company. As a result, we analyze whether the legislation clearly establishes the utility's right to receive and transfer the rights to the charges and provides unambiguous procedures for transferring those rights to the financing vehicle as a true sale, and whether those procedures are followed in the financing order.

In cases where the utility is the servicer of the transaction, we analyze whether a bankruptcy of the utility could lead to a disruption in servicing, e.g., billing and collecting. However, given the essential service provided by the utility, we expect that government authorities would intervene to prevent any disruption in servicing that might result from a bankruptcy. As a result, where the servicer is a regulated utility, we view operational risk as low. Consequently, we typically would consider a transaction to be consistent with a Aaa rating even if the servicer were not investment grade, as long as the transaction were structured with some mitigants for operational risk, such as the inclusion of a backup servicer and/or provision for additional liquidity.[8]

[4] Generally, the charges collected rank senior to other charges of a utility system and represent only a small amount of the total revenues of such system .
[5] Transactions typically allow for more frequent true-ups during the "tail period" between the transaction's stated "expected" maturity (determined by the sponsor) and the "legal" final maturity. The legal final maturity is the important date from our rating perspective, the date by which all principal must be repaid.
[6] In some transactions, the property is created by law for the benefit of a public trust or corporation that also is created by the same law. In such cases, the true sale risk would be non-existent as there is no sale or transfer of the property.
[7] For a discussion of how Moody's analyzes legal risks in structured finance transactions, see Moody's Related Research section at the end of this report.
[8] The rating standard for a backup servicer likely would be lower than investment grade, but would depend on the specific facts and circumstances of the transaction and servicer.

In addition, we analyze whether the bankruptcy of the utility could cause a disruption in the remittance of payments by the utility to bondholders. Such a disruption could occur if the remittances of the charges were "commingled" with the other funds of the utility and the bankruptcy court ordered a halt to payments until proper ownership of the funds could be sorted out. Our analysis includes an assessment of the ways in which the utility separates the cost recovery charges received from its other funds and the frequency with which it transfers the funds to the trust.

3.6 Bankruptcy of the Financing Vehicle

Another potential risk to investors in UCRC securitizations is a bankruptcy of the financing vehicle. That could expose investors to the risk that other creditors of the vehicle might make a claim on the cost recovery charges or that payments to investors might be delayed by the imposition of an automatic stay. Consequently, we analyze (1) the likelihood that a third-party creditor would be able to successfully petition the owner of the assets (i.e., the financing vehicle) into an involuntary bankruptcy proceeding or (2) the likelihood that the owner of the assets would voluntarily seek the protection of the bankruptcy courts.

To analyze the likelihood of an involuntary bankruptcy, we assess the characteristics that would mitigate that risk, such as if the financing vehicle had (1) no assets other than the right to the cost recovery charges, (2) no indebtedness other that the securitization debt, (3) limited activities that could give rise to contractual or other liabilities, and (4) agreements with the sponsor and other contracting parties not to petition for the dissolution, liquidation or bankruptcy of the securitization vehicle. Similarly, factors that would mitigate the risk of a voluntary bankruptcy would include (1) charter documents of the owner of the assets that require directors who are independent of the utility and (2) a unanimous vote of directors as a condition to filing a voluntary bankruptcy.

3.7 Economic Factors

Even if the financing order is irrevocable, the charges or the law that authorizes them could be subject to challenge in the courts or to future political pressure to rescind or change them through legislation. That is more likely the higher the charges, i.e., the more the economic incentive for a challenge or in circumstances where the financial imbalances in a utility system increase. Consequently, our economic analysis focuses on the size of the cost recovery charge, both in absolute terms and as a percentage of the customer's energy bill. Typically the percentage of a residential customer's monthly bill devoted to the cost recovery charge is less than 10%.

We typically also look at stressful collection scenarios. For example, in one scenario, we assume (1) that energy usage falls short of the utility's projections[9] by a progressively increasing amount each year (typically 5% per year), (2) that forecasted collections in peak usage months do not materialize (for example, 100% of the collections in the peak month and 50% of the collections in the second highest-usage month), and (3) that the servicing fee is considerably higher than the current, "normal," servicing fee, representing the fee that would be required if the original servicer needed to be replaced in a stressful environment. In another scenario, we typically assume that energy usage is lower than projected by a set amount throughout the life of the securitization (typically 25%). For highly rated transactions, we would expect that the cost recovery charge would remain relatively low even in those highly stressful scenarios.

While the specific stresses that we place on the variables have been quite similar to date, this reflects the fact that all rated transactions to date have involved requests for the highest ratings and been supported by highly diverse, broad-based service areas. However, in general, stresses are issuer-specific and are determined on a case-by-case basis. One of the factors that we use to determine the appropriate stress level for a transaction is the variability of the base against which the charge is applied, for example, the population in the service area or the energy usage in the service area. Customer bases that are less broad-based and diversified tend to be more variable; as a result, we would apply more severe stresses in those situations.

[9] We typically assess the reasonableness of the utility's projections by analyzing (1) the historical energy usage in the utility's service region and the variances between past projections and actual outcomes, and (2) the likely growth in electricity usage in the service area of the utility, taking into account the projected economic growth in the region and the possible competitive impact of technological advances, such as those in the development of solar energy.

In particular, we evaluate the economic diversity of the utility's service region to assess the potential variability in its economic health, which tends to drive changes in population and energy usage. An area that relies on multiple industries for economic growth will likely have a more stable business climate than an area that is dependent on the fortunes of one industry. In the latter case, the area's prospects will falter if that particular industry runs into hard times.

We also consider the mix in the customer base among residential, commercial, and industrial users. A utility with a large residential base relative to commercial and industrial users will tend to have less volatility in energy consumption, since energy consumption by commercial and industrial operations is more closely tied to the business cycle. Furthermore, residential customers are less likely to quickly embrace new energy production technologies and are less likely to cut back energy consumption dramatically if the price of energy were to rise. The higher variability of a commercial and industrial base can be exacerbated further if the service area's customer usage is concentrated in a few large commercial or industrial operations, which could make the overall energy consumption vulnerable if those entities were to decline or leave the area.

3.8 Structural Features

The key structural feature of UCRC transactions is the true-up mechanism. Our rating is highly dependent on the extent to which the mechanism adjusts the charges to correct for past shortfalls or forecasted future shortfalls. The effectiveness of those rate changes in raising funds depends, in turn, on how easily customers can escape the charges and how sensitive electricity usage is to increases in the utility charges. Therefore, our analysis of the true-up mechanism goes together with our analysis of how bypassable the cost recovery charges are and how easily customers can cut back on electricity usage (through alternative sources of energy or conservation). To be consistent with a particular rating, a strong true-up mechanism combined with non-bypassable charges mitigates the need for credit enhancement in the form of alternative sources of funds.

In addition, our analysis of the credit risk of a UCRC transaction incorporates our assessment of the implications of the transaction's cash flow allocation structure (sometimes referred to as the cash flow "waterfall"). In particular, we focus on the seniority of principal and interest payments to the bond's investors *vis-à-vis* payments to other participants. In addition, we analyze the extent to which the transaction has an alternative source of liquidity to pay principal and interest in the event that there is a temporary interruption in the flow of the cost recovery charges. For example, in many transactions there is a capital or reserve account with funds sufficient to pay interest for at least 1-2 months, if needed. Furthermore, we assess the extent to which the credit enhancement that is available in the transaction is likely to be sufficient to offset any shortfalls that might develop in the period between the final true-up adjustment and the maturity of the bonds.

4. Monitoring

In monitoring UCRC transactions, we apply the key components of this methodology. More specifically, we analyze, whether bond balances are in line with the scheduled principal amortization, which indicates the extent to which payments have been in line with our original expectations.

We review the periodic information received and look at whether there has been a draw on the reserve accounts. This data point provides further clues as to the steadiness of the cash flows and accuracy of true-up adjustments.

In addition, we analyze the factors that determine the future strength of the transaction. For example, we monitor any legal or political developments that could indicate an increased risk of changes in the legislation that could impair future cash flows to the transactions. Such risk may materialise, for example, in case of continued high financial imbalances in the system that may lead the system deficit to be viewed as unsustainable over the long-term.

Depending on the jurisdiction, we also follow the rating of the utility as a proxy to assess any changes to the economic health of the service region and the potential for changes in the size and composition of the ratepayer base. Furthermore, we monitor the rating of the utility collecting the charges (as an indicator of its financial condition) to track the risk, typically quite small, that a bankruptcy could lead to disruption in billing and collections and in the remittance of payments to the bondholders.

In other instances, we may be more concerned with the behavior of the regulator of the utility system and less with individual utility companies. This could lead to a lower rating in the space between the local currency ceiling and the sovereign rating or the utility rating.

Thus changes on our expectations and other analytical components could have an impact on the rating of the securities and may result in a reassessment of the rating.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more secondary or cross-sector credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related secondary and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols and Definitions, which is available here, for further information.

» contacts continued from page 1

ADDITIONAL CONTACTS:
Frankfurt: +49.69.2222.7847
Madrid: +34.91.414.3161
Milan: +39.02.3600.6333
Paris: +33.1.7070.2229

Contributor:

Andrew Silver
Andrew Silver contributed to this report as a research consultant

Report Number: SF404788

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MOODY'S
INVESTORS SERVICE

From: John Kim
To: Bruno Amara
Subject: FW: Rate Mitigation Implementation
Date: Friday, March 10, 2017 10:00:43 AM
Attachments: Summary of Work Plan.docx
OFHP Gov and Delievery Structure - March 9.docx
Agenda_Weekly Rate Mitig Implmentation Group_March 9cc.docx
2017-03-08 Consolidated - OFHP Matrix - March 9_v2 ksh.docx
Moody"s - Securities Backed by Utility Cost Recovery Charges Jun 2015.pdf

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Fyi, related to the equity injection.

-----Original Message-----
From: Ronald Kwan
Sent: Friday, March 10, 2017 9:39 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John,

FYI.

I saved to S:\Users\CEF\Hydro 2017\Electricity Prices\OFHP

Ron

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-10-17 08:35
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation

Good Morning,

Please see the following update and attached materials relating to Energy's kick off Fair Hydro Plan implementation discussion.

Scott

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: Thursday, March 9, 2017 5:23 PM
To: McLean, David (MOF)
Cc: Kennedy, Nancy (MOF); Young, Gwendolynne (MOF)
Subject: RE: Rate Mitigation Implementation

Hi David,

I thought I would share a high level summary of this morning’s discussion.

The meeting started with a conversation around structures and how Energy plans to move all of the elements of the Fair Hydro Plan forward. In essence, these Thursday meetings will become a regular occurrence (next week is scheduled for Wednesday). This will act as a feeder for issue specific working groups in order to have a single window for reporting in on progress and issues that require resolution. See attached “OFHP Gov and Delivery

Structure" for details. There will also be regular DM level updates to keep respective Ministries apprised of progress.

GA Smoothing (Blakes Update)

Blakes, who has been engaged by the Ministry of Energy, provided an overview of the Long Island Power Authority securitization structure that has been referenced several times as a model (albeit smaller) for the GA Smoothing mechanism. Here are some high level details:

o Nuclear facility mothballed and facility costs needed to be repaid over time
o In part as a result of this large liability, LIPA's credit rating was weak increasing borrowing costs
o Created framework in legislation, allowed for a financing order every time the separate entity went out for financing (abbreviated hearing to review merits of case)
o Role of Financial Regulator (closer to OSC than OEB):
· Public Authority Control Board
· Abbreviated hearing
· Form over substance, to ensure calculations are correct
· Regulator needed to be sure that issuance designed to receive lower cost borrowing + meet objectives of the legislation
· If stakeholders want to challenge the validity of order, had 30 days to do so and then foreclosed, after 30 days bonds could be issued
o Asset:
· Order and charges irrevocable: right that could not be changed
· True-up mechanism: ability to adjust collections from end users to ensure cover principle and interest
· Ensure consumers cannot bypass system (pay as long as connected to the grid, whether consuming or not)
· Charge not more than 10% of bill
· Set up as a "true sale" - rights around asset protected
o Unique features (would not apply in Canada):
· State pledge: state would not introduce legislation or do anything to affect rights of assets or bondholders
§ Creates a constitutional right, if reversed is a "taking of the government" which results in a particular process
· Bankruptcy: bondholders can make an application to court to direct payment to bondholders
· While these elements cannot be replicated in the same way in Canada, Blakes suggests it will be important to enable similar protections under the Canadian legal framework to the extent possible

Blakes also walked through key elements that the market and rating agencies will seek in order to ensure this is financeable (according to Blakes there will be an expectation that mitigation measures will be in place for each):
· Size and breadth of customer base
· Non-bypassability
· Volatility of policy environment
· For more details, Blakes suggests reading the attached Moody's guide

GA Smoothing (OPG Update)

OPG walked through the attached summary workplan providing an update on key buckets of work including that included a number of touch points with the OFA and MoF focused on process for borrowing and equity infusion both at inception and ongoing approvals. Note that OPG is conceiving of each incremental debt issuance as an amendment to the borrowing agreement rather than as individual tranches in order to avoid differentiation between bondholder priority thereby minimizing long term interest costs. Note that working groups are beginning to meet to think in more detail to think through these issues.

GA Smoothing (IESO Update)

· IESO is thinking through what needs to be in legislation, regulation, market rules and in an agreement with OPG.

· IESO is also working with OPCD and KPMG to finalize its revised financials to incorporate its market books.

IESO will file its audited financial statement with the AG in May. Further thought is needed on timing and level of engagement with the AG's office.

· On a related note, the AG has reached out through OPCD for an initial briefing on the Fair Hydro Plan.

GA Smoothing (Legislative Drafting Update)

· Energy legal expects to have first drafts to share shortly for input

· Targeting mid-April for approvals

GA Smoothing (General)

· OEB was also included in the discussion and continues to have concerns about its role in the process. Further consideration is required in the context of accounting and financing imperatives

Other Updates

· Work on the RRRP, OESP and First Nations rate is progressing in parallel. There was some talk of inclusion of these elements in the Budget Bill, but no certainty on whether that would be possible from a timing perspective.

· The Affordability Fund is moving on a more expedited path. A first draft of the TPA has been shared with Hydro One for review. Hydro One is working to establish the Trust.

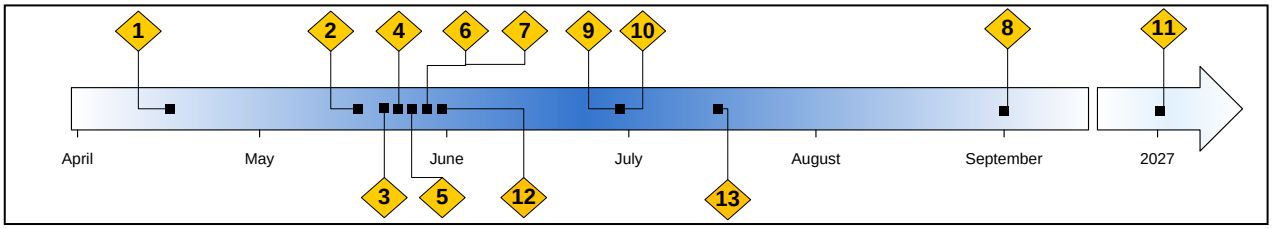
Thanks,
Scott

Summary of Work Plan

Below is an overview of the elements of the draft workplan to set up a trust special purpose financing vehicle (SPV) that would hold the claim on future customers and the debt issued to fund the payment to the IESO in accordance with Ontario's Fair Hydro Plan. All elements of the work plan will consider the key requirements of OPG with respect to elimination or mitigation of risks.

Workplan Overview

The draft workplan below is divided into major components required to set up the trust SPV as part of Ontario's Fair Hydro Plan. Each major component is divided into sub-components that provide further aspects / characteristics / requirements.



[Note deleted #13]

1. Legislative Requirements [Stakeholders: OPG, IESO, OEB, MOE]

a. Characteristics of Regulatory Asset

Key aspects will include collection rights, claim/counterclaim protection, future governmental action protection, saleability into SPV, protection from seller's creditors, OEB regulatory asset recognition, oversight of administration costs and recovery mechanism, and true-up process.

b. *Legislative amendments to implement the structure*

- Provisions in the Electricity Act (and OPG's articles) will be amended/updated to allow flexibility in OPG's corporate structure.
  1. These amendments would be similar in nature to previous amendments made to Hydro One's governing provisions in the Electricity Act.
  2. The amendments would, for example, allow OPG to create and operate through subsidiaries, and also enable OPG to raise financing through public offering of debt. (OPG may need to raise some financing to fund a portion of the subordinated debt going into the trust.)
- The electricity legislation will be amended to implement the deferral and financing of the GA, including amendments:
  1. to reflect that the IESO may defer collection of a portion of the GA;
  2. to create a "regulatory asset" consisting of the right to recover, over time, the amount GA being deferred, together with interest and other financing costs;
  3. to allow the IESO to sell that regulatory asset to a third party (the trust/financing vehicle);
  4. that authorizes the OEB to recognize the regulatory asset (which will likely comprise a deferral account) and allows the owner of the asset to recover the principal amount and financing costs for the GA deferral over time; and
  5. that also provides the OEB with no rights (or very limited rights) to review the terms on which the GA deferral is recovered (i.e. the interest rate, other financing costs and the amortization period). (This is needed to make the GA deferral financeable in the capital markets.)

2. Financing Process [Stakeholders: OPG, IESO]

a. Set up Financing Vehicle

The SPV will be established with a simplified trust indenture to facilitate flexible financing (issue short and long term debt in Canadian and US markets, ability to warehouse, ability to enter into cross currency swaps). The sole purpose of the SPV will be to acquire the

regulatory asset and raise debt. A financial service and management agreement with OPG will also be required.

b. Oversight

Appropriate oversight structure to be established independent of OPG management to review and monitor financing strategies, operating budgets and results of SPV. Reporting and monitoring requirements of Province, IESO and OEB and OPG to be determined.

c. Operations

Processes will be established for deal execution, operating cash management, regulatory reviews and credit rating agency reviews. Agreements will be established to define relationships with IESO (sales & servicing), billing payment and other administrative services, banking arrangements, subordinated debt agreement with OPG.

3. Equity Injection Process [Stakeholders: OPG, Ministry of Energy, Ministry of Finance]

The Province will require Treasury Board approval for periodic appropriations to fund equity injections into OPG. OPG Board approval will be required to issue a specified number of shares that can be periodically issued to the Province. The actual number of shares issued will be based on IESO forecast of funds required.

4. IESO and Trust Operational Process [Stakeholders: OPG, IESO]

Establish processes to facility the SPV's purchase of the IESO's regulatory asset, including timing (notice periods), frequency, fund flows, GA shortfall forecasts and true-up mechanisms.

5. Debt Issuance – General Planning [Stakeholders: OPG, MOF]

Develop debt issuance plan considering need for liquidity/working capital, debt profile (short/long term), debt composition (senior/subordinated), marketing plan (Canada and US), financing amounts and timing, credit rating agency legal opinions and required approvals.

6. Debt Issuance – Subordinated [Stakeholders: OPG]

Establish subordinated debt characteristics (risk, return, cash flows), repayment terms, issue frequency/timing and required approvals.

7. Debt Issuance – Short Term [Stakeholders: OPG]

Ability to aggregate and warehouse using short term CP / ABCP.

8. Debt Issuance – Long Term [Stakeholders: OPG]

Key steps in establishing OPG external long term debt financing include the following:

- Select bank advisor for Canadian market
- Select bank advisor for US market
- Select credit rating agency and establish high investment grade requirements
- Seek credit rating agency legal opinions (identified above in section 5)
- Ongoing financial and legal due diligence
- Credit rating agency presentation and follow-up Q&A
- Obtain preliminary or pre-sale rating
- Develop maturity profile if flexibility available
- Draft and execute offering memorandum, agency agreement and other legal documents
- Prepare marketing materials
- Marketing, road shows, investor one-on-ones
- Investor due diligence and collection of expression of interest
- USD denominated debt - ISDA contracts for swap arrangements and potential collateral requirements

9. **Recovering Interest, Administration and Other Financing Costs from IESO [Stakeholders: OPG, IESO]**

   Establish basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency.

10. **Paying Interest, Administration and Other Financing Costs to Providers [Stakeholders: OPG, IESO]**

    Establish bank accounts, basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency, required approvals and administration agreements (either with trust administrator or OPG).

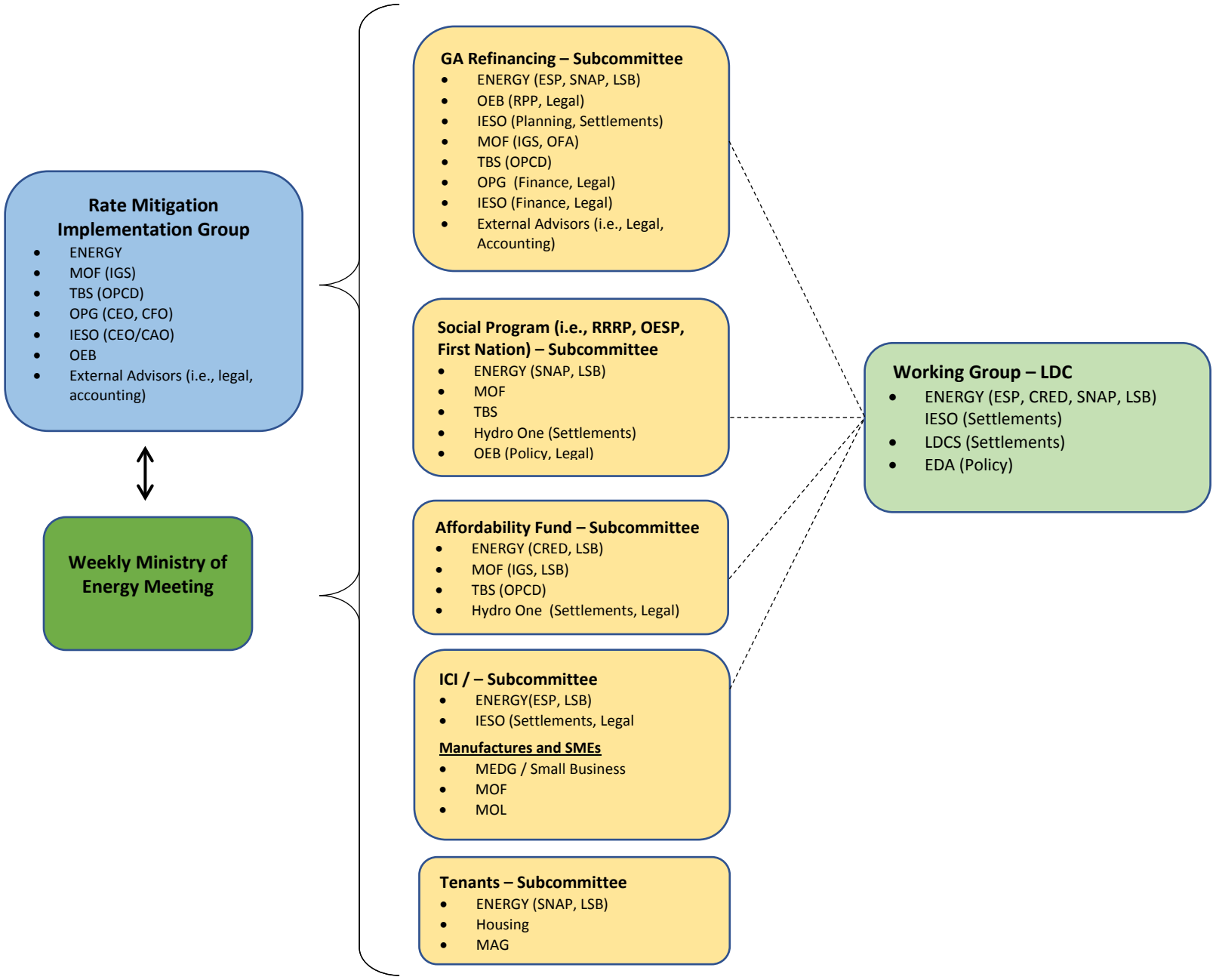
11. **Recovering Principal from IESO [Stakeholders: OPG, IESO]**

    Establish basis of recovery (regulatory asset schedule / actual financing amortization or maturity / other method), documentation requirements, approvals, timing and frequency.

12. **Accounting Requirements and Process [Stakeholders: OPG]**

    Establish overall accounting requirements for trust, regulated asset, consolidation with OPG, operational control of trust and restrictions on regulated asset. See further details in Appendix A – Terms Necessary for OPG to Consolidate the Global Adjustment Trust.

Governance and Delivery Structure for Implementation of Ontario's Fair Hydro Plan



WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 9, 2017

Agenda

1) Governance / Delivery Structure – Overview (ESPD)

2) GA Refinancing
    - Overview of US models (Blakes)
    - OPG Update
    - IESO Update
    - Legislative Drafting (LSB)

3) Affordability Fund (CRED)

4) RRRP, OESP and FN (SNAP)

5) ICI (ESPD)

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of March 6, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• Report back to TB/MBC by Spring 2017 • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB and OEB	• Legislation • Regulation (TBD) <u>Considerations</u> • Reach out to OEB to consider whether surplus funding of ~$100M could be used to increase OESP credits by 50%. Regulation can be updated quickly (need to consider whether posting on EBR is required). • Consider whether revised directive needed to continue having OEB administer program. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	**Week of March 6, 2017:** • TBC/MBC approval (March 6th) • CAB approval (March 8th) • Follow up calls with several LDCs and EDA to provide updates and outline proposed principles for the Fund (Ongoing engagement with Hydro One, LSB, OPCD, CSD on principles and establishment of Trust and development of Transfer Payment Agreement (TPA) (including sharing of drafts for comment); **Week of March 13, 2017:** • Hydro One to finalize establishment of Trust by March 17th • Continue development of TPA, including circulating near to final version by March 17th **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st

Item	Key Deliverables / Considerations	Timing / Next Steps
		April to May 2017: • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • RR posting is typically a minimum of 45-days for all regulatory changes affecting business to allow for review/comment. **Note:** RR posting is not a legal requirement but a best practice. • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC [DATE] • Effective May 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) FAO Engagement		
• ENERGY, MOF/OFA, FAO	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion.

MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Moody's Global Approach to Rating Securities Backed by Utility Cost Recovery Charges

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Analyst Contacts

Xiaochao Wang
Vice President - Senior Analyst
+1.212.553.4143
xiaochao.wang@moodys.com

William Black
Managing Director - Structured Finance
+1.212.553.4563
william.black@moodys.com

Daniel Kolter
Managing Director-Structured Finance
+49.69.70730.797
danield.kolter@moodys.com

Ning Loh
Vice President-Senior Credit Officer
+44.20.7772.5535
ning.loh@moodys.com

Surveillance

Irina Faynzilberg
Vice President - Senior Credit Officer
+1.212.553.7297
irina.faynzilberg@moodys.com

MOODY'S CLIENT SERVICES:
New York: +1.212.553.1653
Tokyo: +81.3.5408.4100
London: +44.20.7772.5454
Hong Kong: +852.3551.3077
Sydney: +61.2.9270.8100
Singapore: +65.6398.8308

» contacts continued on the last page

1. Scope

This methodology describes our global approach to rating securities backed by utility cost recovery charges ("UCRC" bonds) that are established by special legislation and financing orders issued by utility regulatory bodies. The charges backing UCRC bonds rated by us have been established by state legislation and state utility regulatory bodies in the United States. For UCRC bonds backed by charges authorized by other jurisdictions, we will analyze the specifics of the securitization's legal framework and regulations – and their implications for the quality of the protections afforded to investors – within the general methodology described in this report.

Examples of cost recovery charges include those imposed to cover certain costs of utility companies that had been incurred in a regulated environment but could no longer be recovered because of a change to a more competitive regulatory regime (i.e., charges sometimes referred to as "stranded utility charges") and those imposed to pay for environmental cleanups, clean energy or for the replenishment of reserves established for repair of facilities damaged by natural calamities, such as hurricanes or tornados.

2. Executive Summary

A utility cost recovery charge bond is a bond typically issued by a special purpose entity of a utility, or by a special borrowing conduit, to recover specified costs as authorized by special legislation and a specific financing order issued by a public service utility regulatory body. The bonds are backed by a property right created by the legislation, which provides the right to impose and collect special charges on customers' monthly electric bills.

This credit rating methodology was republished on June 22, 2015 containing an updated monitoring section and minor other editorial updates in the body of the text and in certain footnotes. The content of this Credit Rating Methodology has not been changed.

The credit quality of the bonds depends on the legal strength of the property right, which in turn depends on the specifics of the related legislation and financing order, and on the size and economic strength and stability of the ratepayer base against which the costs will be imposed. Therefore, our credit analysis of cost recovery charge securitizations focuses on both legal and economic factors that can influence whether investors in UCRC bonds will be paid as promised.

On the legal side, we assess the extent to which the legislation that authorizes the cost recovery charges[1] provides clear procedures for insulating the transaction from claims by other parties and is likely to be able to withstand challenges to rescind or alter the legislation prior to the legal final maturity of the securities. Consequently, our analysis focuses on the extent to which the legislation clearly defines (1) a property that entitles the owner of such property – the utility, or, in some cases, a public trust or corporation – the right to charge the fee throughout the life of the security in an amount sufficient to make full and timely repayment of principal and interest on the security, (2) the process the owner of the property must follow to charge the fee, (3) the irrevocable right of the owner of the property to transfer the fee to a special purpose financing vehicle for securitization purposes, (4) the type of financing vehicle authorized to issue securities backed by the fees, and (5) the process to be followed such that the transfer would be viewed as a "true sale" of the rights to the cash flows rather than a pledge of collateral for a financing for transactions that involve the transfer of the property from the utility to the issuer. A true sale would insulate the securitization from a bankruptcy of the utility, protecting securitization investors from potential claims on the cash flows by the utility's creditors. In addition, we assess whether the legislation has a government pledge not to impair the utility's right to collect the charges and the consequences if the government nevertheless does attempt to impair the right.

We also examine the likelihood that other potential claimants, such as other creditors of the financing vehicle if it were to become bankrupt or investors in other securities that have been issued by the utility, might make a successful claim on the cash flows of the securitization. Furthermore, we consider the breadth of the market to whom the charge will be applied and the extent to which the charge might be "bypassable," that is, the extent to which current or future customers might be categorized as outside the scope of the applicability of the charge.

Our assessment of the overall legal strength of the property right involves qualitative and judgmental factors. Transactions that are strong with respect to each of such characteristics may achieve the highest rating while the impact of weakening any of the attributes would be evaluated on a case-by-case basis.

On the economic side, our analysis focuses on the likelihood that the charges established by the legislation and accompanying regulations will be sufficient to repay the securitization bonds and on whether the charges might become onerous enough to cause pressure to rescind or alter the charges through future legislative or legal actions. As part of that assessment, we evaluate (1) possible changes in the size and composition of the customer base against whom the fee is to be charged, incorporating an evaluation of the breadth and diversity of the customer base, (2) the likely per capita energy usage (in those cases in which the fee charged is based on the usage amount), and (3) the fee rate, including any mechanism built in by the legislation that enables the fee to be reset over time to offset shortfalls that might develop over the life of the securitization (i.e., the transaction's "true up" mechanism). Generally the true-up mechanism is in effect the most important credit protection for UCRC transactions, limiting the risk that the cost recovery charges will be insufficient to pay off the bonds, thereby limiting the need for traditional sources of credit enhancement such as subordination and reserve funds.[2]

In analyzing a transaction's true-up mechanism, we examine how high rates would need to be set under "stressful" future scenarios to fully pay off the bonds, to assess the risk that onerous future rates might cause pressure to overturn or change the legislation and/or regulations establishing the charges. The variables that we typically "stress" test for UCRC bonds are the base against which the charge is to be

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

[1] Throughout this report we use the terms "cost recovery charges" and "cost recovery fees" interchangeably.

[2] The true-up mechanism also limits the need to analyze the underwriting of the customer base, since the mechanism adjusts for all shortfalls, including those caused by customer defaults.

applied (usually energy usage) and the servicing fee. To obtain a high rating, we would expect that even in a stressful environment, such as one in which energy usage declined dramatically, the charge per customer necessary to pay off the bonds would be reasonably low both in absolute terms and as a percentage of the customer's energy bill. The specific stresses that we place on the variables are issuer-specific and are determined on a case-by-case basis.

In addition, we analyze the implications of other structural features of the securitization that could affect the risk of investor loss. For example, we examine the risk implications of how the cash flows are allocated among the various classes of investors and the other participants in the transaction, and the extent to which any other sources of funds are likely to be sufficient to offset any remaining shortfalls to investors, whether the shortfalls are temporary ("liquidity") or permanent ("credit enhancement").

3. Analyzing the Risk Factors

Because of the unique characteristics of this highly regulated asset class, our credit analysis of UCRC securitizations focuses primarily on the legislation and the true-up mechanism. The degree of certainty that the fees generated through the legislation will be sufficient to pay off the securitizations in full is a complementary aspect of the analysis. .

Depending on the risks and mitigants in the relevant jurisdiction, transaction ratings will typically be positioned between the government rating and the country ceiling. Risks that could lead us to determine transaction ratings to be lower than the country ceiling include, for example, continued high levels of debt burden in a utility system. Such high levels of debt, if deemed unsustainable in the long term, may lead to political pressure to adjust the regulatory framework around the system deficit, with some potential negative impact on the related securitization transactions.

In the following sections, we describe the factors that typically lead to a high degree of certainty and thus high ratings on the bonds.

3.1 Protection against Future Impairment of the Right to Collect the Charges

Utility cost recovery charges are established by special legislation that authorizes the creation of a property right to collect future surcharges on customers' monthly electricity bills as the means to pay back the UCRC bonds. Consequently, we analyze the extent to which investors are protected against the enactment of future legislative changes that would weaken that right. For example, investor risk would be mitigated in a situation in which (1) the legislation contained a pledge by the jurisdiction not to impair the right to collect the special charges until the maturity of the bonds and (2) violation of that pledge would be a violation of law [3].

3.2 Irrevocability of the Financing Order

The legislation is typically accompanied by a financing order issued by the public service commission that authorizes the utilities to impose and collect the surcharges on the customer's monthly electric bill during the term of the bonds. Our analysis assesses whether the financing order is irrevocable, which would protect investors against future adverse changes that may reduce the charges backing the bonds.

3.3 Sufficiency of the Charges and the True-Up Mechanism

The charges are usually assessed as an amount linked to a customer's energy usage. Our analysis considers whether the financing order places any limits on charges – e.g., caps on the levels of charges or limits on the length of time that the charges can be imposed – that might cause the collections to be insufficient to provide for timely payment of the principal and interest on the UCRC bonds. In addition, we analyze whether the period over which the charges are allowed to be levied provides sufficient cushion to pay off the bonds by maturity in the event that collections come in more slowly than originally projected.

[3] Violation of the non-impairment pledge would be a violation of the Contract Clause and the Takings Clause under the Federal and State constitutions.

As part of that analysis, we evaluate the power of any true-up mechanism that is provided for in the legislation and detailed in the financing order to correct for shortfalls that may develop over the life of the securities. A true-up mechanism typically adjusts future fee rates on a scheduled periodic basis (e.g., semiannually or annually) to correct for any under- (or over-) collections in a preceding period and to ensure the full and timely payment of future scheduled debt service, based on updated usage forecasts. The greater the frequency with which the true-up adjustments are made, the less likely that investors will suffer a shortfall at the final maturity date.[4]

That is particularly important as the security approaches the final maturity date; frequent rate adjustments based on then-current projections mitigate the risk that actual collections will deviate substantially from those projections, limiting the possibility of shortfalls at the final maturity date. Consequently, our analysis assesses the conditions under which more frequent true-ups are allowed, especially near the final maturity.[5]

3.4 Non-Bypassability of the Charges

We evaluate whether the charges are "non-bypassable," that is, whether the charges must be collected from all existing and future customers of the utility or its successors or assignees within the utility's service territory, and whether the financing order provides that a severance fee be charged to customers who switch to other service providers within the territory during the life of the bonds. We evaluate any exceptions to the non-bypassabilty rule, and consider the materiality of those exemptions to the cash collections. Charges that cannot be bypassed (i.e., those that cannot be avoided by the customers in the utility's service area) ensure a continuing payer base for the charges, leading to less risk for investors. As described in the Structural Features section (Section 3.8), the power of the true-up mechanism to protect investors is dependent on the non-bypassability of the charges. As a result, non-bypassability (with limited, immaterial exemptions) has been a key factor behind the high ratings that are typically assigned to these transactions, without the need for considerable protection from traditional types of credit protection, such as reserve accounts or subordination.

3.5 Bankruptcy of the Utility

For structures in which the initial owner of the property is a utility, a bankruptcy of the utility could expose securitization investors to the risk that other creditors of the utility might make a claim on the cost recovery charges or that payments to securitization investors might be delayed as a result of an imposition of an automatic stay on payments from the utility company.[6,7] However, that risk would be limited if it were clear that a bankruptcy court would view the transfer of the rights to the charges as a "true sale" of those rights, rather than as a financing of the company. As a result, we analyze whether the legislation clearly establishes the utility's right to receive and transfer the rights to the charges and provides unambiguous procedures for transferring those rights to the financing vehicle as a true sale, and whether those procedures are followed in the financing order.

In cases where the utility is the servicer of the transaction, we analyze whether a bankruptcy of the utility could lead to a disruption in servicing, e.g., billing and collecting. However, given the essential service provided by the utility, we expect that government authorities would intervene to prevent any disruption in servicing that might result from a bankruptcy. As a result, where the servicer is a regulated utility, we view operational risk as low. Consequently, we typically would consider a transaction to be consistent with a Aaa rating even if the servicer were not investment grade, as long as the transaction were structured with some mitigants for operational risk, such as the inclusion of a backup servicer and/or provision for additional liquidity.[8]

[4] Generally, the charges collected rank senior to other charges of a utility system and represent only a small amount of the total revenues of such system .
[5] Transactions typically allow for more frequent true-ups during the "tail period" between the transaction's stated "expected" maturity (determined by the sponsor) and the "legal" final maturity. The legal final maturity is the important date from our rating perspective, the date by which all principal must be repaid.
[6] In some transactions, the property is created by law for the benefit of a public trust or corporation that also is created by the same law. In such cases, the true sale risk would be non-existent as there is no sale or transfer of the property.
[7] For a discussion of how Moody's analyzes legal risks in structured finance transactions, see Moody's Related Research section at the end of this report.
[8] The rating standard for a backup servicer likely would be lower than investment grade, but would depend on the specific facts and circumstances of the transaction and servicer.

In addition, we analyze whether the bankruptcy of the utility could cause a disruption in the remittance of payments by the utility to bondholders. Such a disruption could occur if the remittances of the charges were "commingled" with the other funds of the utility and the bankruptcy court ordered a halt to payments until proper ownership of the funds could be sorted out. Our analysis includes an assessment of the ways in which the utility separates the cost recovery charges received from its other funds and the frequency with which it transfers the funds to the trust.

3.6 Bankruptcy of the Financing Vehicle

Another potential risk to investors in UCRC securitizations is a bankruptcy of the financing vehicle. That could expose investors to the risk that other creditors of the vehicle might make a claim on the cost recovery charges or that payments to investors might be delayed by the imposition of an automatic stay. Consequently, we analyze (1) the likelihood that a third-party creditor would be able to successfully petition the owner of the assets (i.e., the financing vehicle) into an involuntary bankruptcy proceeding or (2) the likelihood that the owner of the assets would voluntarily seek the protection of the bankruptcy courts.

To analyze the likelihood of an involuntary bankruptcy, we assess the characteristics that would mitigate that risk, such as if the financing vehicle had (1) no assets other than the right to the cost recovery charges, (2) no indebtedness other that the securitization debt, (3) limited activities that could give rise to contractual or other liabilities, and (4) agreements with the sponsor and other contracting parties not to petition for the dissolution, liquidation or bankruptcy of the securitization vehicle. Similarly, factors that would mitigate the risk of a voluntary bankruptcy would include (1) charter documents of the owner of the assets that require directors who are independent of the utility and (2) a unanimous vote of directors as a condition to filing a voluntary bankruptcy.

3.7 Economic Factors

Even if the financing order is irrevocable, the charges or the law that authorizes them could be subject to challenge in the courts or to future political pressure to rescind or change them through legislation. That is more likely the higher the charges, i.e., the more the economic incentive for a challenge or in circumstances where the financial imbalances in a utility system increase. Consequently, our economic analysis focuses on the size of the cost recovery charge, both in absolute terms and as a percentage of the customer's energy bill. Typically the percentage of a residential customer's monthly bill devoted to the cost recovery charge is less than 10%.

We typically also look at stressful collection scenarios. For example, in one scenario, we assume (1) that energy usage falls short of the utility's projections[9] by a progressively increasing amount each year (typically 5% per year), (2) that forecasted collections in peak usage months do not materialize (for example, 100% of the collections in the peak month and 50% of the collections in the second highest-usage month), and (3) that the servicing fee is considerably higher than the current, "normal," servicing fee, representing the fee that would be required if the original servicer needed to be replaced in a stressful environment. In another scenario, we typically assume that energy usage is lower than projected by a set amount throughout the life of the securitization (typically 25%). For highly rated transactions, we would expect that the cost recovery charge would remain relatively low even in those highly stressful scenarios.

While the specific stresses that we place on the variables have been quite similar to date, this reflects the fact that all rated transactions to date have involved requests for the highest ratings and been supported by highly diverse, broad-based service areas. However, in general, stresses are issuer-specific and are determined on a case-by-case basis. One of the factors that we use to determine the appropriate stress level for a transaction is the variability of the base against which the charge is applied, for example, the population in the service area or the energy usage in the service area. Customer bases that are less broad-based and diversified tend to be more variable; as a result, we would apply more severe stresses in those situations.

[9] We typically assess the reasonableness of the utility's projections by analyzing (1) the historical energy usage in the utility's service region and the variances between past projections and actual outcomes, and (2) the likely growth in electricity usage in the service area of the utility, taking into account the projected economic growth in the region and the possible competitive impact of technological advances, such as those in the development of solar energy.

In particular, we evaluate the economic diversity of the utility's service region to assess the potential variability in its economic health, which tends to drive changes in population and energy usage. An area that relies on multiple industries for economic growth will likely have a more stable business climate than an area that is dependent on the fortunes of one industry. In the latter case, the area's prospects will falter if that particular industry runs into hard times.

We also consider the mix in the customer base among residential, commercial, and industrial users. A utility with a large residential base relative to commercial and industrial users will tend to have less volatility in energy consumption, since energy consumption by commercial and industrial operations is more closely tied to the business cycle. Furthermore, residential customers are less likely to quickly embrace new energy production technologies and are less likely to cut back energy consumption dramatically if the price of energy were to rise. The higher variability of a commercial and industrial base can be exacerbated further if the service area's customer usage is concentrated in a few large commercial or industrial operations, which could make the overall energy consumption vulnerable if those entities were to decline or leave the area.

3.8 Structural Features

The key structural feature of UCRC transactions is the true-up mechanism. Our rating is highly dependent on the extent to which the mechanism adjusts the charges to correct for past shortfalls or forecasted future shortfalls. The effectiveness of those rate changes in raising funds depends, in turn, on how easily customers can escape the charges and how sensitive electricity usage is to increases in the utility charges. Therefore, our analysis of the true-up mechanism goes together with our analysis of how bypassable the cost recovery charges are and how easily customers can cut back on electricity usage (through alternative sources of energy or conservation). To be consistent with a particular rating, a strong true-up mechanism combined with non-bypassable charges mitigates the need for credit enhancement in the form of alternative sources of funds.

In addition, our analysis of the credit risk of a UCRC transaction incorporates our assessment of the implications of the transaction's cash flow allocation structure (sometimes referred to as the cash flow "waterfall"). In particular, we focus on the seniority of principal and interest payments to the bond's investors *vis-à-vis* payments to other participants. In addition, we analyze the extent to which the transaction has an alternative source of liquidity to pay principal and interest in the event that there is a temporary interruption in the flow of the cost recovery charges. For example, in many transactions there is a capital or reserve account with funds sufficient to pay interest for at least 1-2 months, if needed. Furthermore, we assess the extent to which the credit enhancement that is available in the transaction is likely to be sufficient to offset any shortfalls that might develop in the period between the final true-up adjustment and the maturity of the bonds.

4. Monitoring

In monitoring UCRC transactions, we apply the key components of this methodology. More specifically, we analyze, whether bond balances are in line with the scheduled principal amortization, which indicates the extent to which payments have been in line with our original expectations.

We review the periodic information received and look at whether there has been a draw on the reserve accounts. This data point provides further clues as to the steadiness of the cash flows and accuracy of true-up adjustments.

In addition, we analyze the factors that determine the future strength of the transaction. For example, we monitor any legal or political developments that could indicate an increased risk of changes in the legislation that could impair future cash flows to the transactions. Such risk may materialise, for example, in case of continued high financial imbalances in the system that may lead the system deficit to be viewed as unsustainable over the long-term.

Depending on the jurisdiction, we also follow the rating of the utility as a proxy to assess any changes to the economic health of the service region and the potential for changes in the size and composition of the ratepayer base. Furthermore, we monitor the rating of the utility collecting the charges (as an indicator of its financial condition) to track the risk, typically quite small, that a bankruptcy could lead to disruption in billing and collections and in the remittance of payments to the bondholders.

In other instances, we may be more concerned with the behavior of the regulator of the utility system and less with individual utility companies. This could lead to a lower rating in the space between the local currency ceiling and the sovereign rating or the utility rating.

Thus changes on our expectations and other analytical components could have an impact on the rating of the securities and may result in a reassessment of the rating.

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more secondary or cross-sector credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related secondary and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols and Definitions, which is available here, for further information.

» contacts continued from page 1

ADDITIONAL CONTACTS:
Frankfurt: +49.69.2222.7847
Madrid: +34.91.414.3161
Milan: +39.02.3600.6333
Paris: +33.1.7070.2229

Contributor:

Andrew Silver
Andrew Silver contributed to this report as a research consultant

Report Number: SF404788

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From: Ronald Kwan
To: John Kim
Subject: FW: Rate Mitigation Implementation
Date: Friday, March 10, 2017 9:38:37 AM
Attachments: Summary of Work Plan.docx
OFHP Gov and Delievery Structure - March 9.docx
Agenda_Weekly Rate Mitig Implmentation Group_March 9cc.docx
2017-03-08 Consolidated - OFHP Matrix - March 9_v2 ksh.docx
Moody"s - Securities Backed by Utility Cost Recovery Charges Jun 2015.pdf

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Hi John,

FYI.

I saved to S:\Users\CEF\Hydro 2017\Electricity Prices\OFHP

Ron

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-10-17 08:35
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation

Good Morning,

Please see the following update and attached materials relating to Energy's kick off Fair Hydro Plan implementation discussion.

Scott

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: Thursday, March 9, 2017 5:23 PM
To: McLean, David (MOF)
Cc: Kennedy, Nancy (MOF); Young, Gwendolynne (MOF)
Subject: RE: Rate Mitigation Implementation

Hi David,

I thought I would share a high level summary of this morning's discussion.

The meeting started with a conversation around structures and how Energy plans to move all of the elements of the Fair Hydro Plan forward. In essence, these Thursday meetings will become a regular occurrence (next week is scheduled for Wednesday). This will act as a feeder for issue specific working groups in order to have a single window for reporting in on progress and issues that require resolution. See attached "OFHP Gov and Delivery Structure" for details. There will also be regular DM level updates to keep respective Ministries apprised of progress.

GA Smoothing (Blakes Update)

Blakes, who has been engaged by the Ministry of Energy, provided an overview of the Long Island Power Authority securitization structure that has been referenced several times as a model (albeit smaller) for the GA Smoothing mechanism. Here are some high level details:

o Nuclear facility mothballed and facility costs needed to be repaid over time
o In part as a result of this large liability, LIPA's credit rating was weak increasing borrowing costs
o Created framework in legislation, allowed for a financing order every time the separate entity went out for financing (abbreviated hearing to review merits of case)
o Role of Financial Regulator (closer to OSC than OEB):
· Public Authority Control Board
· Abbreviated hearing
· Form over substance, to ensure calculations are correct
· Regulator needed to be sure that issuance designed to receive lower cost borrowing + meet objectives of the legislation
· If stakeholders want to challenge the validity of order, had 30 days to do so and then foreclosed, after 30 days bonds could be issued
o Asset:
· Order and charges irrevocable: right that could not be changed
· True-up mechanism: ability to adjust collections from end users to ensure cover principle and interest
· Ensure consumers cannot bypass system (pay as long as connected to the grid, whether consuming or not)
· Charge not more than 10% of bill
· Set up as a "true sale" - rights around asset protected
o Unique features (would not apply in Canada):
· State pledge: state would not introduce legislation or do anything to affect rights of assets or bondholders
§ Creates a constitutional right, if reversed is a "taking of the government" which results in a particular process
· Bankruptcy: bondholders can make an application to court to direct payment to bondholders
· While these elements cannot be replicated in the same way in Canada, Blakes suggests it will be important to enable similar protections under the Canadian legal framework to the extent possible

Blakes also walked through key elements that the market and rating agencies will seek in order to ensure this is financeable (according to Blakes there will be an expectation that mitigation measures will be in place for each):
· Size and breadth of customer base
· Non-bypassability
· Volatility of policy environment
· For more details, Blakes suggests reading the attached Moody's guide

GA Smoothing (OPG Update)

OPG walked through the attached summary workplan providing an update on key buckets of work including that included a number of touch points with the OFA and MoF focused on process for borrowing and equity infusion both at inception and ongoing approvals. Note that OPG is conceiving of each incremental debt issuance as an amendment to the borrowing agreement rather than as individual tranches in order to avoid differentiation between bondholder priority thereby minimizing long term interest costs. Note that working groups are beginning to meet to think in more detail to think through these issues.

GA Smoothing (IESO Update)

· IESO is thinking through what needs to be in legislation, regulation, market rules and in an agreement with OPG.

· IESO is also working with OPCD and KPMG to finalize its revised financials to incorporate its market books. IESO will file its audited financial statement with the AG in May. Further thought is needed on timing and level of engagement with the AG's office.

· On a related note, the AG has reached out through OPCD for an initial briefing on the Fair Hydro Plan.

GA Smoothing (Legislative Drafting Update)

· Energy legal expects to have first drafts to share shortly for input

· Targeting mid-April for approvals

GA Smoothing (General)

· OEB was also included in the discussion and continues to have concerns about its role in the process. Further consideration is required in the context of accounting and financing imperatives

Other Updates

· Work on the RRRP, OESP and First Nations rate is progressing in parallel. There was some talk of inclusion of these elements in the Budget Bill, but no certainty on whether that would be possible from a timing perspective.

· The Affordability Fund is moving on a more expedited path. A first draft of the TPA has been shared with Hydro One for review. Hydro One is working to establish the Trust.

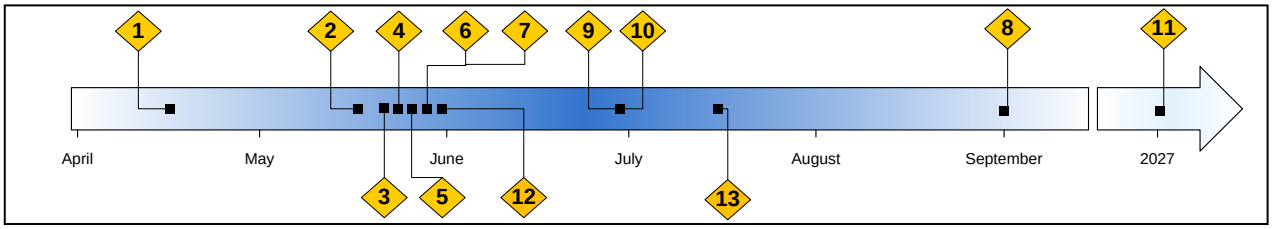
Thanks,
Scott

Summary of Work Plan

Below is an overview of the elements of the draft workplan to set up a trust special purpose financing vehicle (SPV) that would hold the claim on future customers and the debt issued to fund the payment to the IESO in accordance with Ontario's Fair Hydro Plan. All elements of the work plan will consider the key requirements of OPG with respect to elimination or mitigation of risks.

Workplan Overview

The draft workplan below is divided into major components required to set up the trust SPV as part of Ontario's Fair Hydro Plan. Each major component is divided into sub-components that provide further aspects / characteristics / requirements.



[Note deleted #13]

1. Legislative Requirements [Stakeholders: OPG, IESO, OEB, MOE]

a. Characteristics of Regulatory Asset

Key aspects will include collection rights, claim/counterclaim protection, future governmental action protection, saleability into SPV, protection from seller's creditors, OEB regulatory asset recognition, oversight of administration costs and recovery mechanism, and true-up process.

b. *Legislative amendments to implement the structure*

- Provisions in the Electricity Act (and OPG's articles) will be amended/updated to allow flexibility in OPG's corporate structure.
  1. These amendments would be similar in nature to previous amendments made to Hydro One's governing provisions in the Electricity Act.
  2. The amendments would, for example, allow OPG to create and operate through subsidiaries, and also enable OPG to raise financing through public offering of debt. (OPG may need to raise some financing to fund a portion of the subordinated debt going into the trust.)
- The electricity legislation will be amended to implement the deferral and financing of the GA, including amendments:
  1. to reflect that the IESO may defer collection of a portion of the GA;
  2. to create a "regulatory asset" consisting of the right to recover, over time, the amount GA being deferred, together with interest and other financing costs;
  3. to allow the IESO to sell that regulatory asset to a third party (the trust/financing vehicle);
  4. that authorizes the OEB to recognize the regulatory asset (which will likely comprise a deferral account) and allows the owner of the asset to recover the principal amount and financing costs for the GA deferral over time; and
  5. that also provides the OEB with no rights (or very limited rights) to review the terms on which the GA deferral is recovered (i.e. the interest rate, other financing costs and the amortization period). (This is needed to make the GA deferral financeable in the capital markets.)

2. Financing Process [Stakeholders: OPG, IESO]

a. Set up Financing Vehicle

The SPV will be established with a simplified trust indenture to facilitate flexible financing (issue short and long term debt in Canadian and US markets, ability to warehouse, ability to enter into cross currency swaps). The sole purpose of the SPV will be to acquire the

regulatory asset and raise debt. A financial service and management agreement with OPG will also be required.

b. Oversight

Appropriate oversight structure to be established independent of OPG management to review and monitor financing strategies, operating budgets and results of SPV. Reporting and monitoring requirements of Province, IESO and OEB and OPG to be determined.

c. Operations

Processes will be established for deal execution, operating cash management, regulatory reviews and credit rating agency reviews. Agreements will be established to define relationships with IESO (sales & servicing), billing payment and other administrative services, banking arrangements, subordinated debt agreement with OPG.

3. Equity Injection Process [Stakeholders: OPG, Ministry of Energy, Ministry of Finance]

The Province will require Treasury Board approval for periodic appropriations to fund equity injections into OPG. OPG Board approval will be required to issue a specified number of shares that can be periodically issued to the Province. The actual number of shares issued will be based on IESO forecast of funds required.

4. IESO and Trust Operational Process [Stakeholders: OPG, IESO]

Establish processes to facility the SPV's purchase of the IESO's regulatory asset, including timing (notice periods), frequency, fund flows, GA shortfall forecasts and true-up mechanisms.

5. Debt Issuance – General Planning [Stakeholders: OPG, MOF]

Develop debt issuance plan considering need for liquidity/working capital, debt profile (short/long term), debt composition (senior/subordinated), marketing plan (Canada and US), financing amounts and timing, credit rating agency legal opinions and required approvals.

6. Debt Issuance – Subordinated [Stakeholders: OPG]

Establish subordinated debt characteristics (risk, return, cash flows), repayment terms, issue frequency/timing and required approvals.

7. Debt Issuance – Short Term [Stakeholders: OPG]

Ability to aggregate and warehouse using short term CP / ABCP.

8. Debt Issuance – Long Term [Stakeholders: OPG]

Key steps in establishing OPG external long term debt financing include the following:

- Select bank advisor for Canadian market
- Select bank advisor for US market
- Select credit rating agency and establish high investment grade requirements
- Seek credit rating agency legal opinions (identified above in section 5)
- Ongoing financial and legal due diligence
- Credit rating agency presentation and follow-up Q&A
- Obtain preliminary or pre-sale rating
- Develop maturity profile if flexibility available
- Draft and execute offering memorandum, agency agreement and other legal documents
- Prepare marketing materials
- Marketing, road shows, investor one-on-ones
- Investor due diligence and collection of expression of interest
- USD denominated debt - ISDA contracts for swap arrangements and potential collateral requirements

9. **Recovering Interest, Administration and Other Financing Costs from IESO [Stakeholders: OPG, IESO]**

   Establish basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency.

10. **Paying Interest, Administration and Other Financing Costs to Providers [Stakeholders: OPG, IESO]**

    Establish bank accounts, basis of cost (actual or accrued), documentation requirements, funds flow timing and frequency, required approvals and administration agreements (either with trust administrator or OPG).

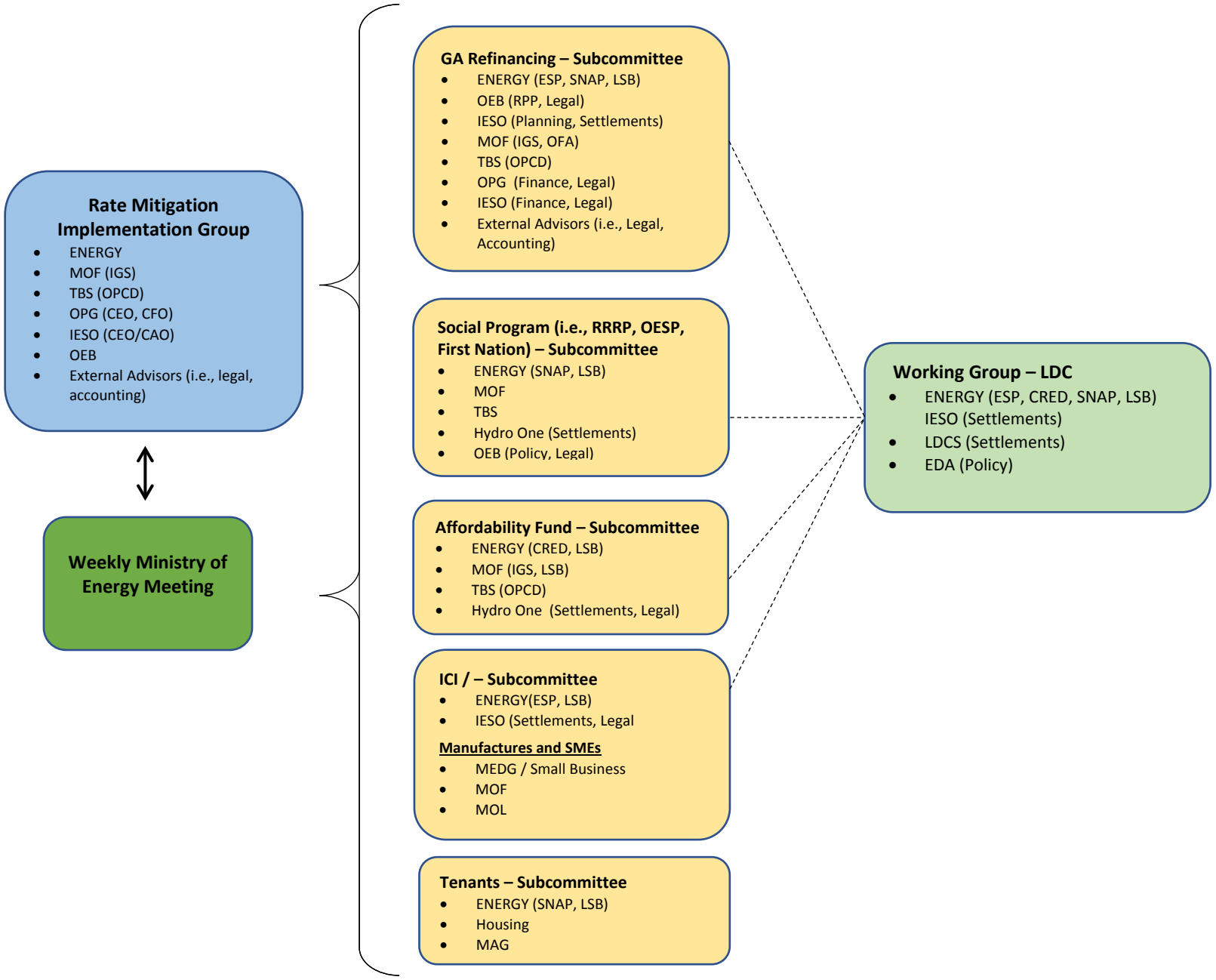
11. **Recovering Principal from IESO [Stakeholders: OPG, IESO]**

    Establish basis of recovery (regulatory asset schedule / actual financing amortization or maturity / other method), documentation requirements, approvals, timing and frequency.

12. **Accounting Requirements and Process [Stakeholders: OPG]**

    Establish overall accounting requirements for trust, regulated asset, consolidation with OPG, operational control of trust and restrictions on regulated asset. See further details in Appendix A – Terms Necessary for OPG to Consolidate the Global Adjustment Trust.

Governance and Delivery Structure for Implementation of Ontario's Fair Hydro Plan



WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 9, 2017

Agenda

1) Governance / Delivery Structure – Overview (ESPD)

2) GA Refinancing
    - Overview of US models (Blakes)
    - OPG Update
    - IESO Update
    - Legislative Drafting (LSB)

3) Affordability Fund (CRED)

4) RRRP, OESP and FN (SNAP)

5) ICI (ESPD)

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of March 6, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• Report back to TB/MBC by Spring 2017 • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB and OEB	• Legislation • Regulation (TBD) <u>Considerations</u> • Reach out to OEB to consider whether surplus funding of ~$100M could be used to increase OESP credits by 50%. Regulation can be updated quickly (need to consider whether posting on EBR is required). • Consider whether revised directive needed to continue having OEB administer program. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	**Week of March 6, 2017:** • TBC/MBC approval (March 6th) • CAB approval (March 8th) • Follow up calls with several LDCs and EDA to provide updates and outline proposed principles for the Fund (Ongoing engagement with Hydro One, LSB, OPCD, CSD on principles and establishment of Trust and development of Transfer Payment Agreement (TPA) (including sharing of drafts for comment); **Week of March 13, 2017:** • Hydro One to finalize establishment of Trust by March 17th • Continue development of TPA, including circulating near to final version by March 17th **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st

Item	Key Deliverables / Considerations	Timing / Next Steps
		April to May 2017: • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • RR posting is typically a minimum of 45-days for all regulatory changes affecting business to allow for review/comment. **Note:** RR posting is not a legal requirement but a best practice. • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC [DATE] • Effective May 2017 (TBD)

Item	Key Deliverables / Considerations	Timing / Next Steps
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	• Continue this work as part of LTEP
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March
11) FAO Engagement		
• ENERGY, MOF/OFA, FAO	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion.

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RATING METHODOLOGY

Moody's Global Approach to Rating Securities Backed by Utility Cost Recovery Charges

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Analyst Contacts

Xiaochao Wang
Vice President - Senior Analyst
+1.212.553.4143
xiaochao.wang@moodys.com

William Black
Managing Director - Structured Finance
+1.212.553.4563
william.black@moodys.com

Daniel Kolter
Managing Director-Structured Finance
+49.69.70730.797
danield.kolter@moodys.com

Ning Loh
Vice President-Senior Credit Officer
+44.20.7772.5535
ning.loh@moodys.com

Surveillance

Irina Faynzilberg
Vice President - Senior Credit Officer
+1.212.553.7297
irina.faynzilberg@moodys.com

MOODY'S CLIENT SERVICES:
New York: +1.212.553.1653
Tokyo: +81.3.5408.4100
London: +44.20.7772.5454
Hong Kong: +852.3551.3077
Sydney: +61.2.9270.8100
Singapore: +65.6398.8308

» contacts continued on the last page

1. Scope

This methodology describes our global approach to rating securities backed by utility cost recovery charges ("UCRC" bonds) that are established by special legislation and financing orders issued by utility regulatory bodies. The charges backing UCRC bonds rated by us have been established by state legislation and state utility regulatory bodies in the United States. For UCRC bonds backed by charges authorized by other jurisdictions, we will analyze the specifics of the securitization's legal framework and regulations – and their implications for the quality of the protections afforded to investors – within the general methodology described in this report.

Examples of cost recovery charges include those imposed to cover certain costs of utility companies that had been incurred in a regulated environment but could no longer be recovered because of a change to a more competitive regulatory regime (i.e., charges sometimes referred to as "stranded utility charges") and those imposed to pay for environmental cleanups, clean energy or for the replenishment of reserves established for repair of facilities damaged by natural calamities, such as hurricanes or tornados.

2. Executive Summary

A utility cost recovery charge bond is a bond typically issued by a special purpose entity of a utility, or by a special borrowing conduit, to recover specified costs as authorized by special legislation and a specific financing order issued by a public service utility regulatory body. The bonds are backed by a property right created by the legislation, which provides the right to impose and collect special charges on customers' monthly electric bills.

This credit rating methodology was republished on June 22, 2015 containing an updated monitoring section and minor other editorial updates in the body of the text and in certain footnotes. The content of this Credit Rating Methodology has not been changed.

The credit quality of the bonds depends on the legal strength of the property right, which in turn depends on the specifics of the related legislation and financing order, and on the size and economic strength and stability of the ratepayer base against which the costs will be imposed. Therefore, our credit analysis of cost recovery charge securitizations focuses on both legal and economic factors that can influence whether investors in UCRC bonds will be paid as promised.

On the legal side, we assess the extent to which the legislation that authorizes the cost recovery charges[1] provides clear procedures for insulating the transaction from claims by other parties and is likely to be able to withstand challenges to rescind or alter the legislation prior to the legal final maturity of the securities. Consequently, our analysis focuses on the extent to which the legislation clearly defines (1) a property that entitles the owner of such property – the utility, or, in some cases, a public trust or corporation – the right to charge the fee throughout the life of the security in an amount sufficient to make full and timely repayment of principal and interest on the security, (2) the process the owner of the property must follow to charge the fee, (3) the irrevocable right of the owner of the property to transfer the fee to a special purpose financing vehicle for securitization purposes, (4) the type of financing vehicle authorized to issue securities backed by the fees, and (5) the process to be followed such that the transfer would be viewed as a "true sale" of the rights to the cash flows rather than a pledge of collateral for a financing for transactions that involve the transfer of the property from the utility to the issuer. A true sale would insulate the securitization from a bankruptcy of the utility, protecting securitization investors from potential claims on the cash flows by the utility's creditors. In addition, we assess whether the legislation has a government pledge not to impair the utility's right to collect the charges and the consequences if the government nevertheless does attempt to impair the right.

We also examine the likelihood that other potential claimants, such as other creditors of the financing vehicle if it were to become bankrupt or investors in other securities that have been issued by the utility, might make a successful claim on the cash flows of the securitization. Furthermore, we consider the breadth of the market to whom the charge will be applied and the extent to which the charge might be "bypassable," that is, the extent to which current or future customers might be categorized as outside the scope of the applicability of the charge.

Our assessment of the overall legal strength of the property right involves qualitative and judgmental factors. Transactions that are strong with respect to each of such characteristics may achieve the highest rating while the impact of weakening any of the attributes would be evaluated on a case-by-case basis.

On the economic side, our analysis focuses on the likelihood that the charges established by the legislation and accompanying regulations will be sufficient to repay the securitization bonds and on whether the charges might become onerous enough to cause pressure to rescind or alter the charges through future legislative or legal actions. As part of that assessment, we evaluate (1) possible changes in the size and composition of the customer base against whom the fee is to be charged, incorporating an evaluation of the breadth and diversity of the customer base, (2) the likely per capita energy usage (in those cases in which the fee charged is based on the usage amount), and (3) the fee rate, including any mechanism built in by the legislation that enables the fee to be reset over time to offset shortfalls that might develop over the life of the securitization (i.e., the transaction's "true up" mechanism). Generally the true-up mechanism is in effect the most important credit protection for UCRC transactions, limiting the risk that the cost recovery charges will be insufficient to pay off the bonds, thereby limiting the need for traditional sources of credit enhancement such as subordination and reserve funds.[2]

In analyzing a transaction's true-up mechanism, we examine how high rates would need to be set under "stressful" future scenarios to fully pay off the bonds, to assess the risk that onerous future rates might cause pressure to overturn or change the legislation and/or regulations establishing the charges. The variables that we typically "stress" test for UCRC bonds are the base against which the charge is to be

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

[1] Throughout this report we use the terms "cost recovery charges" and "cost recovery fees" interchangeably.

[2] The true-up mechanism also limits the need to analyze the underwriting of the customer base, since the mechanism adjusts for all shortfalls, including those caused by customer defaults.

applied (usually energy usage) and the servicing fee. To obtain a high rating, we would expect that even in a stressful environment, such as one in which energy usage declined dramatically, the charge per customer necessary to pay off the bonds would be reasonably low both in absolute terms and as a percentage of the customer's energy bill. The specific stresses that we place on the variables are issuer-specific and are determined on a case-by-case basis.

In addition, we analyze the implications of other structural features of the securitization that could affect the risk of investor loss. For example, we examine the risk implications of how the cash flows are allocated among the various classes of investors and the other participants in the transaction, and the extent to which any other sources of funds are likely to be sufficient to offset any remaining shortfalls to investors, whether the shortfalls are temporary ("liquidity") or permanent ("credit enhancement").

3. Analyzing the Risk Factors

Because of the unique characteristics of this highly regulated asset class, our credit analysis of UCRC securitizations focuses primarily on the legislation and the true-up mechanism. The degree of certainty that the fees generated through the legislation will be sufficient to pay off the securitizations in full is a complementary aspect of the analysis. .

Depending on the risks and mitigants in the relevant jurisdiction, transaction ratings will typically be positioned between the government rating and the country ceiling. Risks that could lead us to determine transaction ratings to be lower than the country ceiling include, for example, continued high levels of debt burden in a utility system. Such high levels of debt, if deemed unsustainable in the long term, may lead to political pressure to adjust the regulatory framework around the system deficit, with some potential negative impact on the related securitization transactions.

In the following sections, we describe the factors that typically lead to a high degree of certainty and thus high ratings on the bonds.

3.1 Protection against Future Impairment of the Right to Collect the Charges

Utility cost recovery charges are established by special legislation that authorizes the creation of a property right to collect future surcharges on customers' monthly electricity bills as the means to pay back the UCRC bonds. Consequently, we analyze the extent to which investors are protected against the enactment of future legislative changes that would weaken that right. For example, investor risk would be mitigated in a situation in which (1) the legislation contained a pledge by the jurisdiction not to impair the right to collect the special charges until the maturity of the bonds and (2) violation of that pledge would be a violation of law [3].

3.2 Irrevocability of the Financing Order

The legislation is typically accompanied by a financing order issued by the public service commission that authorizes the utilities to impose and collect the surcharges on the customer's monthly electric bill during the term of the bonds. Our analysis assesses whether the financing order is irrevocable, which would protect investors against future adverse changes that may reduce the charges backing the bonds.

3.3 Sufficiency of the Charges and the True-Up Mechanism

The charges are usually assessed as an amount linked to a customer's energy usage. Our analysis considers whether the financing order places any limits on charges – e.g., caps on the levels of charges or limits on the length of time that the charges can be imposed – that might cause the collections to be insufficient to provide for timely payment of the principal and interest on the UCRC bonds. In addition, we analyze whether the period over which the charges are allowed to be levied provides sufficient cushion to pay off the bonds by maturity in the event that collections come in more slowly than originally projected.

[3] Violation of the non-impairment pledge would be a violation of the Contract Clause and the Takings Clause under the Federal and State constitutions.

As part of that analysis, we evaluate the power of any true-up mechanism that is provided for in the legislation and detailed in the financing order to correct for shortfalls that may develop over the life of the securities. A true-up mechanism typically adjusts future fee rates on a scheduled periodic basis (e.g., semiannually or annually) to correct for any under- (or over-) collections in a preceding period and to ensure the full and timely payment of future scheduled debt service, based on updated usage forecasts. The greater the frequency with which the true-up adjustments are made, the less likely that investors will suffer a shortfall at the final maturity date.[4]

That is particularly important as the security approaches the final maturity date; frequent rate adjustments based on then-current projections mitigate the risk that actual collections will deviate substantially from those projections, limiting the possibility of shortfalls at the final maturity date. Consequently, our analysis assesses the conditions under which more frequent true-ups are allowed, especially near the final maturity.[5]

3.4 Non-Bypassability of the Charges

We evaluate whether the charges are "non-bypassable," that is, whether the charges must be collected from all existing and future customers of the utility or its successors or assignees within the utility's service territory, and whether the financing order provides that a severance fee be charged to customers who switch to other service providers within the territory during the life of the bonds. We evaluate any exceptions to the non-bypassabilty rule, and consider the materiality of those exemptions to the cash collections. Charges that cannot be bypassed (i.e., those that cannot be avoided by the customers in the utility's service area) ensure a continuing payer base for the charges, leading to less risk for investors. As described in the Structural Features section (Section 3.8), the power of the true-up mechanism to protect investors is dependent on the non-bypassability of the charges. As a result, non-bypassability (with limited, immaterial exemptions) has been a key factor behind the high ratings that are typically assigned to these transactions, without the need for considerable protection from traditional types of credit protection, such as reserve accounts or subordination.

3.5 Bankruptcy of the Utility

For structures in which the initial owner of the property is a utility, a bankruptcy of the utility could expose securitization investors to the risk that other creditors of the utility might make a claim on the cost recovery charges or that payments to securitization investors might be delayed as a result of an imposition of an automatic stay on payments from the utility company.[6,7] However, that risk would be limited if it were clear that a bankruptcy court would view the transfer of the rights to the charges as a "true sale" of those rights, rather than as a financing of the company. As a result, we analyze whether the legislation clearly establishes the utility's right to receive and transfer the rights to the charges and provides unambiguous procedures for transferring those rights to the financing vehicle as a true sale, and whether those procedures are followed in the financing order.

In cases where the utility is the servicer of the transaction, we analyze whether a bankruptcy of the utility could lead to a disruption in servicing, e.g., billing and collecting. However, given the essential service provided by the utility, we expect that government authorities would intervene to prevent any disruption in servicing that might result from a bankruptcy. As a result, where the servicer is a regulated utility, we view operational risk as low. Consequently, we typically would consider a transaction to be consistent with a Aaa rating even if the servicer were not investment grade, as long as the transaction were structured with some mitigants for operational risk, such as the inclusion of a backup servicer and/or provision for additional liquidity.[8]

[4] Generally, the charges collected rank senior to other charges of a utility system and represent only a small amount of the total revenues of such system .
[5] Transactions typically allow for more frequent true-ups during the "tail period" between the transaction's stated "expected" maturity (determined by the sponsor) and the "legal" final maturity. The legal final maturity is the important date from our rating perspective, the date by which all principal must be repaid.
[6] In some transactions, the property is created by law for the benefit of a public trust or corporation that also is created by the same law. In such cases, the true sale risk would be non-existent as there is no sale or transfer of the property.
[7] For a discussion of how Moody's analyzes legal risks in structured finance transactions, see Moody's Related Research section at the end of this report.
[8] The rating standard for a backup servicer likely would be lower than investment grade, but would depend on the specific facts and circumstances of the transaction and servicer.

In addition, we analyze whether the bankruptcy of the utility could cause a disruption in the remittance of payments by the utility to bondholders. Such a disruption could occur if the remittances of the charges were "commingled" with the other funds of the utility and the bankruptcy court ordered a halt to payments until proper ownership of the funds could be sorted out. Our analysis includes an assessment of the ways in which the utility separates the cost recovery charges received from its other funds and the frequency with which it transfers the funds to the trust.

3.6 Bankruptcy of the Financing Vehicle

Another potential risk to investors in UCRC securitizations is a bankruptcy of the financing vehicle. That could expose investors to the risk that other creditors of the vehicle might make a claim on the cost recovery charges or that payments to investors might be delayed by the imposition of an automatic stay. Consequently, we analyze (1) the likelihood that a third-party creditor would be able to successfully petition the owner of the assets (i.e., the financing vehicle) into an involuntary bankruptcy proceeding or (2) the likelihood that the owner of the assets would voluntarily seek the protection of the bankruptcy courts.

To analyze the likelihood of an involuntary bankruptcy, we assess the characteristics that would mitigate that risk, such as if the financing vehicle had (1) no assets other than the right to the cost recovery charges, (2) no indebtedness other that the securitization debt, (3) limited activities that could give rise to contractual or other liabilities, and (4) agreements with the sponsor and other contracting parties not to petition for the dissolution, liquidation or bankruptcy of the securitization vehicle. Similarly, factors that would mitigate the risk of a voluntary bankruptcy would include (1) charter documents of the owner of the assets that require directors who are independent of the utility and (2) a unanimous vote of directors as a condition to filing a voluntary bankruptcy.

3.7 Economic Factors

Even if the financing order is irrevocable, the charges or the law that authorizes them could be subject to challenge in the courts or to future political pressure to rescind or change them through legislation. That is more likely the higher the charges, i.e., the more the economic incentive for a challenge or in circumstances where the financial imbalances in a utility system increase. Consequently, our economic analysis focuses on the size of the cost recovery charge, both in absolute terms and as a percentage of the customer's energy bill. Typically the percentage of a residential customer's monthly bill devoted to the cost recovery charge is less than 10%.

We typically also look at stressful collection scenarios. For example, in one scenario, we assume (1) that energy usage falls short of the utility's projections[9] by a progressively increasing amount each year (typically 5% per year), (2) that forecasted collections in peak usage months do not materialize (for example, 100% of the collections in the peak month and 50% of the collections in the second highest-usage month), and (3) that the servicing fee is considerably higher than the current, "normal," servicing fee, representing the fee that would be required if the original servicer needed to be replaced in a stressful environment. In another scenario, we typically assume that energy usage is lower than projected by a set amount throughout the life of the securitization (typically 25%). For highly rated transactions, we would expect that the cost recovery charge would remain relatively low even in those highly stressful scenarios.

While the specific stresses that we place on the variables have been quite similar to date, this reflects the fact that all rated transactions to date have involved requests for the highest ratings and been supported by highly diverse, broad-based service areas. However, in general, stresses are issuer-specific and are determined on a case-by-case basis. One of the factors that we use to determine the appropriate stress level for a transaction is the variability of the base against which the charge is applied, for example, the population in the service area or the energy usage in the service area. Customer bases that are less broad-based and diversified tend to be more variable; as a result, we would apply more severe stresses in those situations.

[9] We typically assess the reasonableness of the utility's projections by analyzing (1) the historical energy usage in the utility's service region and the variances between past projections and actual outcomes, and (2) the likely growth in electricity usage in the service area of the utility, taking into account the projected economic growth in the region and the possible competitive impact of technological advances, such as those in the development of solar energy.

In particular, we evaluate the economic diversity of the utility's service region to assess the potential variability in its economic health, which tends to drive changes in population and energy usage. An area that relies on multiple industries for economic growth will likely have a more stable business climate than an area that is dependent on the fortunes of one industry. In the latter case, the area's prospects will falter if that particular industry runs into hard times.

We also consider the mix in the customer base among residential, commercial, and industrial users. A utility with a large residential base relative to commercial and industrial users will tend to have less volatility in energy consumption, since energy consumption by commercial and industrial operations is more closely tied to the business cycle. Furthermore, residential customers are less likely to quickly embrace new energy production technologies and are less likely to cut back energy consumption dramatically if the price of energy were to rise. The higher variability of a commercial and industrial base can be exacerbated further if the service area's customer usage is concentrated in a few large commercial or industrial operations, which could make the overall energy consumption vulnerable if those entities were to decline or leave the area.

3.8 Structural Features

The key structural feature of UCRC transactions is the true-up mechanism. Our rating is highly dependent on the extent to which the mechanism adjusts the charges to correct for past shortfalls or forecasted future shortfalls. The effectiveness of those rate changes in raising funds depends, in turn, on how easily customers can escape the charges and how sensitive electricity usage is to increases in the utility charges. Therefore, our analysis of the true-up mechanism goes together with our analysis of how bypassable the cost recovery charges are and how easily customers can cut back on electricity usage (through alternative sources of energy or conservation). To be consistent with a particular rating, a strong true-up mechanism combined with non-bypassable charges mitigates the need for credit enhancement in the form of alternative sources of funds.

In addition, our analysis of the credit risk of a UCRC transaction incorporates our assessment of the implications of the transaction's cash flow allocation structure (sometimes referred to as the cash flow "waterfall"). In particular, we focus on the seniority of principal and interest payments to the bond's investors *vis-à-vis* payments to other participants. In addition, we analyze the extent to which the transaction has an alternative source of liquidity to pay principal and interest in the event that there is a temporary interruption in the flow of the cost recovery charges. For example, in many transactions there is a capital or reserve account with funds sufficient to pay interest for at least 1-2 months, if needed. Furthermore, we assess the extent to which the credit enhancement that is available in the transaction is likely to be sufficient to offset any shortfalls that might develop in the period between the final true-up adjustment and the maturity of the bonds.

4. Monitoring

In monitoring UCRC transactions, we apply the key components of this methodology. More specifically, we analyze, whether bond balances are in line with the scheduled principal amortization, which indicates the extent to which payments have been in line with our original expectations.

We review the periodic information received and look at whether there has been a draw on the reserve accounts. This data point provides further clues as to the steadiness of the cash flows and accuracy of true-up adjustments.

In addition, we analyze the factors that determine the future strength of the transaction. For example, we monitor any legal or political developments that could indicate an increased risk of changes in the legislation that could impair future cash flows to the transactions. Such risk may materialise, for example, in case of continued high financial imbalances in the system that may lead the system deficit to be viewed as unsustainable over the long-term.

Depending on the jurisdiction, we also follow the rating of the utility as a proxy to assess any changes to the economic health of the service region and the potential for changes in the size and composition of the ratepayer base. Furthermore, we monitor the rating of the utility collecting the charges (as an indicator of its financial condition) to track the risk, typically quite small, that a bankruptcy could lead to disruption in billing and collections and in the remittance of payments to the bondholders.

In other instances, we may be more concerned with the behavior of the regulator of the utility system and less with individual utility companies. This could lead to a lower rating in the space between the local currency ceiling and the sovereign rating or the utility rating.

Thus changes on our expectations and other analytical components could have an impact on the rating of the securities and may result in a reassessment of the rating.

Moody's Related Research

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For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see link.

Please refer to Moody's Rating Symbols and Definitions, which is available here, for further information.

» contacts continued from page 1

ADDITIONAL CONTACTS:
Frankfurt: +49.69.2222.7847
Madrid: +34.91.414.3161
Milan: +39.02.3600.6333
Paris: +33.1.7070.2229

Contributor:

Andrew Silver
Andrew Silver contributed to this report as a research consultant

Report Number: SF404788

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INVESTORS SERVICE

From:	John Kim
To:	Bruno Amara
Subject:	FW: Rate Mitigation Implementation
Date:	Tuesday, March 21, 2017 12:11:38 PM
Attachments:	Consolidated - OFHP Matrix -Week March 13.docx TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx Agenda_Weekly Rate Mitig Implmentation Group_March 15.docx

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This one too….

From: Ronald Kwan
Sent: Thursday, March 16, 2017 4:53 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John, Emily,

FYI on the attached.

Emily, note point 8 in the legislative issues document:

- restrictions on consumer group's ability to "opt-out" or by-pass the charge (to avoid de-valuing the asset)

Likely not quite on point, but in the ballpark perhaps. Not quite sure what they mean by ''group'' in this context.

Ron

From: Gadi Mayman
Sent: March-16-17 16:42
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

FYI

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Thursday, March 16, 2017 2:33 PM
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: Rate Mitigation Implementation

Hi Gadi,
Per your discussion with the Deputy, we'll be adding you to our weekly rate mitigation implementation meetings. Attached, for reference, is the material from this week's meeting.

Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

Implementation of Ontario's Fair Hydro Plan
Week of March 13, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation:
	  o Defining mitigation and recovery mechanism; and
	  o Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg.429/04)
	• Shareholder Declaration and Resolution
	• Third Party Technical Report re Long Lived Assets (TBD)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o IESO line of credit to bridge from May-July;
	  o OEFC to OPG equity injection structure; and
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)
	
	<u>Considerations</u>
	• GA refinancing legislation could also include legislative changes to enable broadening of RRRP, expanding of OESP and establishing of FN delivery credit.
	• Ongoing legal, accounting and financing risk assessments.
	• Impact on Electricity Sector Dedicated Income.
	• OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers.
		• Report back to TBC/MBC by spring 2017, prior to going to LRC with any legislation, on the approach to refinance GA (per TBC/MBC Minute)
		
		• Report to TBC/MBC, LRC and Cabinet in spring 2017 (per Cabinet Minute)
		
		• Provide comfort level to allow OEB to include in May 2017 RPP
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure	• LDC working group kick-off March 14, 2017 • Report back to TB/MBC by Spring 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
	in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Fall 2017 implementation (per Cabinet Minute)
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – Potentially early Spring. • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. Currently engaging OEB. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 • Program in place in 2017 (per Cabinet Minute)
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13M to $20M

Item	Key Deliverables / Considerations	Timing / Next Steps
	• Work with LDCs to consider any bill messaging.	• Program in place in 2017 (per Cabinet Minute)
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, TBS, MOF and H1	• TBC/MBC Submission • Trust Structure • Transfer Payment Agreement (multi-party) <u>Considerations</u> • Legislative changes not required. • Funding needs to flow to the Trust prior to March 31, 2017.	• Ongoing engagement with Hydro One, LSB, OPCD, CSD on development of Transfer Payment Agreement (TPA) and Trust Declaration (including sharing of drafts for comment) • Hydro One to finalize establishment of Trust by March 17, 2017 **Week of March 20, 2017:** • Execute TPA between the Ministry and the Trust by March 22nd • Initiate process to flow funds to the Trust; to be completed before March 31st **April to May 2017:** • Additional trustees to be appointment; Trust develops further details, e.g. customer eligibility criteria and processes for LDCs to apply for funds; to be developed in consultation with LDCs **June 2017:** • Report back to TB/MBC with

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		final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date to impact electricity bills this year (May 15, 2017). • Working with the Ontario Chamber of Commerce on a targeted outreach campaign.	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • Report back to TBC/MBC by spring 2017 (per TBC/MBC Minute) • LRC on March 11, 2016 • Effective May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD)	• Continue this work as part of LTEP

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	Considerations • Opportunity to highlight Market Renewal in the next LTEP. • IESO's stakeholder engagements on Market Renewal is ongoing. • Moving away from a two schedule system could impact consumer prices depending on implementation. • Most of the savings accrue from the move to a capacity auction. These savings do not materialize until the province has capacity requirements.	
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' Considerations • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs Considerations • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in spring 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and	• Early-mid March

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	o Agencies (i.e., IESO, OPG, OEB and H1)	
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion. • Awaiting formal letter requesting additional information
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion in April 2017 (TBD)

Summary of Legislative Changes

What follows is a summary of five categories of legislative issues that are currently being dealt with by the legislative team. There is significant overlap between the categories (for example, some of the basic legislative changes could be categorized as changes that are designed to address market considerations).

The drafting of the legislative amendments will be a very detailed and iterative process and drafts of the legislation are currently under review by the team. We also anticipate that the provisions will be reviewed by other experts (for example, US counsel and investment banking advisor). However, we do not anticipate that the primary categories of amendment will change.

1. Basic Legislative Changes Required to Bring the Program into Existence

For example:

- explain policy intent (inter-generational funding)
- revise the general objects/purposes of the legislation to permit the program
- add new objects and rights for IESO to permit IESO's role in the program
- add obligations for IESO to make payments with respect to amounts borrowed under the securitization, the repayment of interest costs or charges, and costs related to the operation or management of the trust or other entity
- provide authority to OPG to establish trust or other entity and its right to recover interest costs, charges, and operating and management costs
    - allow for Trust/SPV to warehouse funds
- define the regulatory asset and allow it to be bought/sold between IESO and Trust/SPV
- define (generally) the group of consumers who benefit from GA refinancing and who will be required to repay it
- establishment of the IESO's obligations

2. Legislative Provisions to Establish the Regulatory Role of the OEB

For example,

- OEB role in creation of the regulatory asset
- OEB role with respect to review of calculations as to amounts to be paid by ratepayers to satisfy the debt obligations

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- OEB role with respect to “true-up” of GA calculations (annual or semi-annual)
- OEB role regarding administrative costs of the trust or entity

3. Legislative Provisions Related to OPG

For example,

- provisions to ensure that OPG has the legal authority to implement the program
- provisions to ensure that OPG’s assets are properly ring-fenced
- provisions to ensure OPG has authority to create subsidiaries or other entities and transact with the Trust/SPV

4. Legislative Provisions to Address Market Considerations

For example, provisions to provide,

- the creation of the new trust (or other) entity and ensure that it is bankruptcy remote
- clear identification of consumer groups to whom the program applies (“RPP eligible”)
- restrictions on consumer group’s ability to “opt-out” or by-pass the charge (to avoid de-valuing the asset)
- establishment of the owner’s clear right to the regulatory asset to enable payment of principal and interest to investors
- a re-set or true-up mechanism to enable the owner of the payment stream to account for differences between anticipated and actual performance of the GA
- a system to deal with sharing/pro-rating if the ratepayer pays less than the invoiced amount
- irrevocability of the owner’s property right (or a surrogate for irrevocability)
- the establishment of a “true sale” of the regulatory asset

5. Addition of Legislative Provisions (to be considered)

- cap maximum GA refinancing in a year by dollar value
- set a maximum interest amount for GA refinancing debt after year 5

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- cap GA refinancing based on OPG financial ratios
- fix the date until which rate payers receive a discount for GA refinancing
- fix a total amount to be borrowed as “principal”, at which point further borrowing must service the debt and does not reduce GA paid by rate payers
- determine how surpluses in collections are to be applied (e.g. reinvest in GA reduction before new debt)
- cap increases to rate payer bills at no more than ■% in a year

DRAFT

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
March 15, 2017

Agenda

1) GA Refinancing
    - OPG Update
    - IESO Update
    - OPG Update
    - Legislative Drafting (LSB / Blakes)

2) Affordability Fund (CRED)

3) RRRP, OESP and FN (SNAP)

4) ICI (ESPD)

Notes:

From: Ronald Kwan
To: John Kim; Emily Kerr
Subject: FW: Rate Mitigation for small and medium size business.
Date: Tuesday, March 07, 2017 6:21:44 PM

Hi,

Would one of you reach out to Daniel Cayley on the kinds of options the working group would be looking at, and if "tax base" means specific tax measures only, or more broadly to mean "government-funded".

Thanks,
Ron

-----Original Message-----
From: Ronald Kwan
Sent: March-07-17 18:01
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
Subject: RE: Rate Mitigation for small and medium size business.

Hi,

Energy was charged with exploring different rate mitigation for small and medium businesses. But the last draft Minute that I saw did not specify what kind of measures to explore, tax or otherwise.

And when they say "tax base", that wording sometimes just means an option that is government funded, not a specific tax measure.

Has the DMO been looped in, as the Deputy was in the room for the Cabinet discussion, and there may have been specific ideas raised. I was not in the room.

Gadi was in the room too, so looping him in.

Ron

-----Original Message-----
From: Subrahmanyan, Sriram (MOF) [mailto:Sriram.Subrahmanyan@ontario.ca]
Sent: March-07-17 17:07
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
Subject: Fw: Rate Mitigation for small and medium size business.

Hi, Ron. See below. I assume Energy was tasked to do this in the minute? Btw, our lead would be Colin, not Rob. This is a tax credit.

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Howe, Jyllian (MOF) <Jyllian.Howe@ontario.ca>
Sent: Tuesday, March 7, 2017 4:58 PM
To: Subrahmanyan, Sriram (MOF)
Subject: FW: Rate Mitigation for small and medium size business.

Ministry of Energy is tasked with developing additional rate mitigation for small and medium size business and are starting a working group. Under consideration is using the tax base and they would like our participation. They've

reached out to Rob.

Is this something we are interested in participating in?

From: Lewis, Robin (MOF)
Sent: March 7, 2017 1:21 PM
To: Howe, Jyllian (MOF)
Cc: Langleben, Ann (MOF)
Subject: FW: Rate Mitigation for small and medium size business.

Jyllian,

M of Energy has asked us to participate in a working group respecting the above.

Ann wants Sriram's approval.

Regards,

Rob

From: Langleben, Ann (MOF)
Sent: March 7, 2017 1:18 PM
To: Lewis, Robin (MOF)
Cc: Klassen, Daniela (MOF); Winfield, Lloyd (MOF)
Subject: Re: Rate Mitigation for small and medium size business.

Ask them to go through Jyllian in the ADMO. We need our ADM to be on side.

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Lewis, Robin (MOF)
Sent: Tuesday, March 7, 2017 1:07 PM
To: Langleben, Ann (MOF)
Cc: Klassen, Daniela (MOF); Winfield, Lloyd (MOF)
Subject: Rate Mitigation for small and medium size business.

Ann,

I received a call from Daniel Cayley from MoE. Energy is tasked with developing additional rate mitigation for small and medium size business and are starting a working group.

Under consideration is using the tax base and they would like our participation.

Would you like tax design to accept the assignment?

Regards,

Rob

Rob Lewis|Legislation Design| Corporate & Commodity Taxation Branch|Ministry of Finance
robin.lewis@ontario.ca<mailto:robin.lewis@ontario.ca> |416.212.6163 |95 Grosvenor St, 2nd Fl. Toronto, ON M7A 1Z1

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notify the sender immediately by return e-mail and delete the copy you have received. Thank you.

From:	John Kim
To:	Bruno Amara
Subject:	FW: Rate Mitigation
Date:	Friday, March 17, 2017 1:52:55 PM
Attachments:	TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx

Pls. have a look to see if any comments.

John.

From: Ronald Kwan
Sent: Friday, March 17, 2017 1:46 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation

Hi John, Emily,

FYI. Any comments?

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-17-17 13:40
To: David McLean (MOF) <David.McLean@ontario.ca>
Cc: Nancy Kennedy (MOHLTC) <Nancy.Kennedy@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: Rate Mitigation

Hi Dave,

Please see the following summary of this week's rate mitigation update discussion:

GA Financing

OPG

- RBC, CIBC, Goldman have been approached to act as leads for securitization (both for Canada and US). Terms have not yet been finalized
- Sub-committee meetings are starting up, including facilitating the required equity injections from the Province
- Bankers have suggested timelines are aggressive
- OPG likely to establish the financing in the Fall but will have bridge facilities in place in order to accommodate financing in the interim period.
- The idea is not to go to market each month, but potentially on a quarterly basis. Short term debt would accumulate monthly (the bridge facilities mentioned above would help

accommodate this) and then move to longer term borrowing financed via the quarterly offerings.

- Each time OPG goes to market the asset would be re-sized and associated debt would all be considered a single tranche.
- At this point the thinking is that all three credit agencies would rate the debt (Moody's, S&P, Fitch)
- OPG highlighted some of the information that they'll require over the coming weeks/months:
    - Customer data: Rating agencies will have a particular focus on 10% of customer bill and will require information to assess this
    - Equity injection: Might require a second class of shares, redeemable because cash coming back on paydown
    - Mechanism: Seeking clarity on what the process beyond year 4 will be with respect to determining the asset / liability
    - OFA Involvement: OPG suggested that it may be difficult for OFA to purchase large parts of the 51% outside financing, as it may not meet accounting tests for independence. However, OPG is investigating whether OFA could act as a lead order in order to drive interest costs down.
- OPG Board has chartered a special committee of the Board to advise on the structure. For now OPG is comfortable devoting time and resources on the basis of the Premier's announcement. The company may require a Shareholder Declaration / Resolution in order to advance the discussion (likely in April)
    - OPG will work with the Province to carefully worded the Dec./Res. to ensure the Board maintains authority to proceed. Ultimately the Board needs to ensure the proposal they make is in the best interest of OPG based on its credit rating, governance and business interests
    - The board may need enhanced indemnification for this initiative which the Province is considering

IESO

- Conversations on technical process are underway (Ministry, OPG etc.)
- KPMG requires draft legislation before it can provide an opinion on the regulatory construct but this is still in the early stages. IESO will discuss the process and timelines for this opinion.

OEB

- Require a letter from Minister to allow incorporation of GA Smoothing into May 1 RPP. OEB is developing a first draft.
- A news release is planned for the Thursday following Easter announcing new RPP rates.

Blakes

- Blakes provided a summary of legislative changes (see document attached)
- One item in particular that they are thinking through is the impact of consumers exiting the system which would put pressure on the value of the asset. Consideration could be given to a true-up mechanism to ensure the cost is covered or potentially an exit charge

Affordability Fund:

- This initiative is moving quickly with documents to be finalized and executed next week and flow of funds shortly thereafter
- Computershare will act as the initial trustee and the trust documents will set out a process for selecting experts to act as Trustees and guide the flow of funds. Considering Trustees from areas including LDCs, social service agencies, staff level etc.

RRRP, OESP, First Nations Rate:

- Work is proceeding with three separate sub-committees but there is a lot of cross over on all three workstreams
- LDC working groups kicked off last week where they focused on bill presentation and implementation
- OESP:
    - The posting is up for comment (comment period ends April 8th)
    - OESP be removed from the bill at the same time GA financing is implemented (May 1st) pending regulation amendment process
    - Move toward 100% via automatic enrollment is more complex so may not be implemented for May 1st. ENE is working with MCSS to deploy a process similar to ODSP and other low income programs but a Federal exemption is required which conversation with the CRA are ongoing
- RRRP:
    - RRRP cannot be removed from the bill until the legislation is passed
    - Conversations have started but the main work for LDCs will be implementing billing system changes and OEB can help identify who may require IT assistance
- FN Rate:
    - Chiefs of Ontario are interested in participating in a working group
    - Eligibility will be geographically based (all on reserve residents). This may capture some non-First Nations residents. However this should be limited, and would be extremely complicated to avoid.

ICI:

- LRC on April 11th with a May implementation date
- Will begin outreach to Chamber of Commerce (OCC) and consider others (CME for example)
- ENE will begin to sit down with other Ministries to discuss broader measures for small and medium businesses
- ENE has met with LDCs to ensure they are aware of changes and EDA has flagged that clarity is needed for some small manufactures to ensure conservation incentive remains

Thanks,
Scott

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DRAFT

From: Ronald Kwan
To: John Kim; Emily Kerr
Cc: Gavin He
Subject: FW: Rate Mitigation
Date: Friday, March 17, 2017 1:45:53 PM
Attachments: TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx

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Thanks,
Scott

Summary of Legislative Changes

What follows is a summary of five categories of legislative issues that are currently being dealt with by the legislative team. There is significant overlap between the categories (for example, some of the basic legislative changes could be categorized as changes that are designed to address market considerations).

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1. Basic Legislative Changes Required to Bring the Program into Existence

For example:

- explain policy intent (inter-generational funding)
- revise the general objects/purposes of the legislation to permit the program
- add new objects and rights for IESO to permit IESO's role in the program
- add obligations for IESO to make payments with respect to amounts borrowed under the securitization, the repayment of interest costs or charges, and costs related to the operation or management of the trust or other entity
- provide authority to OPG to establish trust or other entity and its right to recover interest costs, charges, and operating and management costs
    - allow for Trust/SPV to warehouse funds
- define the regulatory asset and allow it to be bought/sold between IESO and Trust/SPV
- define (generally) the group of consumers who benefit from GA refinancing and who will be required to repay it
- establishment of the IESO's obligations

2. Legislative Provisions to Establish the Regulatory Role of the OEB

For example,

- OEB role in creation of the regulatory asset
- OEB role with respect to review of calculations as to amounts to be paid by ratepayers to satisfy the debt obligations

DRAFT

- OEB role with respect to “true-up” of GA calculations (annual or semi-annual)
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For example,

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4. Legislative Provisions to Address Market Considerations

For example, provisions to provide,

- the creation of the new trust (or other) entity and ensure that it is bankruptcy remote
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- restrictions on consumer group’s ability to “opt-out” or by-pass the charge (to avoid de-valuing the asset)
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- a re-set or true-up mechanism to enable the owner of the payment stream to account for differences between anticipated and actual performance of the GA
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DRAFT

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- cap increases to rate payer bills at no more than ■% in a year

DRAFT

From:	John Kim
To:	Bruno Amara
Subject:	FW: Rate Mitigation
Date:	Tuesday, March 21, 2017 12:11:27 PM
Attachments:	TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx

Can't remember if I shared this with you….

From: Ronald Kwan
Sent: Friday, March 17, 2017 1:46 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation

Hi John, Emily,

FYI. Any comments?

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-17-17 13:40
To: David McLean (MOF) <David.McLean@ontario.ca>
Cc: Nancy Kennedy (MOHLTC) <Nancy.Kennedy@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: Rate Mitigation

Hi Dave,

Please see the following summary of this week's rate mitigation update discussion:

GA Financing

OPG

- RBC, CIBC, Goldman have been approached to act as leads for securitization (both for Canada and US). Terms have not yet been finalized
- Sub-committee meetings are starting up, including facilitating the required equity injections from the Province
- Bankers have suggested timelines are aggressive
- OPG likely to establish the financing in the Fall but will have bridge facilities in place in order to accommodate financing in the interim period.
- The idea is not to go to market each month, but potentially on a quarterly basis. Short term debt would accumulate monthly (the bridge facilities mentioned above would help accommodate this) and then move to longer term borrowing financed via the quarterly offerings.

- Each time OPG goes to market the asset would be re-sized and associated debt would all be considered a single tranche.
- At this point the thinking is that all three credit agencies would rate the debt (Moody's, S&P, Fitch)
- OPG highlighted some of the information that they'll require over the coming weeks/months:
    - Customer data: Rating agencies will have a particular focus on 10% of customer bill and will require information to assess this
    - Equity injection: Might require a second class of shares, redeemable because cash coming back on paydown
    - Mechanism: Seeking clarity on what the process beyond year 4 will be with respect to determining the asset / liability
    - OFA Involvement: OPG suggested that it may be difficult for OFA to purchase large parts of the 51% outside financing, as it may not meet accounting tests for independence. However, OPG is investigating whether OFA could act as a lead order in order to drive interest costs down.
- OPG Board has chartered a special committee of the Board to advise on the structure. For now OPG is comfortable devoting time and resources on the basis of the Premier's announcement. The company may require a Shareholder Declaration / Resolution in order to advance the discussion (likely in April)
    - OPG will work with the Province to carefully worded the Dec./Res. to ensure the Board maintains authority to proceed. Ultimately the Board needs to ensure the proposal they make is in the best interest of OPG based on its credit rating, governance and business interests
    - The board may need enhanced indemnification for this initiative which the Province is considering

IESO

- Conversations on technical process are underway (Ministry, OPG etc.)
- KPMG requires draft legislation before it can provide an opinion on the regulatory construct but this is still in the early stages. IESO will discuss the process and timelines for this opinion.

OEB

- Require a letter from Minister to allow incorporation of GA Smoothing into May 1 RPP. OEB is developing a first draft.
- A news release is planned for the Thursday following Easter announcing new RPP rates.

Blakes

- Blakes provided a summary of legislative changes (see document attached)
- One item in particular that they are thinking through is the impact of consumers exiting the system which would put pressure on the value of the asset. Consideration could be given to a true-up mechanism to ensure the cost is covered or potentially an exit charge

Affordability Fund:

- This initiative is moving quickly with documents to be finalized and executed next week and flow of funds shortly thereafter

- Computershare will act as the initial trustee and the trust documents will set out a process for selecting experts to act as Trustees and guide the flow of funds. Considering Trustees from areas including LDCs, social service agencies, staff level etc.

RRRP, OESP, First Nations Rate:

- Work is proceeding with three separate sub-committees but there is a lot of cross over on all three workstreams
- LDC working groups kicked off last week where they focused on bill presentation and implementation
- OESP:
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DRAFT

From:	Adam Prokop
To:	Bruno Amara
Cc:	John Kim
Subject:	FW: Rate Regulated Accounting
Date:	Wednesday, March 15, 2017 6:10:48 PM
Attachments:	Rate Regulation Accounting Example.xlsx

Hey Bruno,

Just a little accounting thing I prepared for the new hire Dannie on rate regulation accounting. Figured it could also be useful to you as well.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Adam Prokop
Sent: Wednesday, March 15, 2017 6:07 PM
To: Dannie Won <Dannie.Won@ofina.on.ca>
Subject: Rate Regulated Accounting

Here you go man,

Let me know if you have any questions.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

Understanding Rate Regulation Accounting

Background

In many jurisdictions, utilities (mainly electricity and natural gas utilities) have a natural monopoly for the service they provide. In order to keep the rates fair and prevent undue hardship on ratepayers, a third-party regulator controls the rates that utilities charge based on their individual operations. In Ontario, this regulator is the Ontario Energy Board (OEB). Generally, utilities try to recover the costs of running their business, plus an economic return based on the cost of capital. The OEB sets the rate for the return on equity, as well as the weighting of capital structure, with the standard deemed capital structure being between 40-50% equity and 50%-60% debt. The cost of debt is usually determined by each utility's actual and forecasted borrowing costs.

Utilities apply to the regulator (OEB) for the approval of their rates with a **rate application** for a given time period (e.g., 5 years). The OEB and other third-party "intervenors" question the utility about the accuracy of its projected and current costs, and how exactly and future investments will provide a benefit to ratepayers. After a technical and oral hearing process, the OEB sets the rates for the application period, with these rates being charged to customers.

One added complication is that some utilities companies have other operations that fall outside of rate regulation, e.g., a utility company could also have a telecommunications business that is not regulated or regulated by the OEB. Thus, the associated assets, revenues, liabilities, and expenses for non-regulated activities have to be separated from those involved with rate-regulation activities so that rates charged to customers only reflect the recovery of costs associated with the services provided to ratepayers.

An illustrative example will be used throughout this document using the following assumptions:

Balance Sheet Items - 2017 Estimate		**Income Statement - 2017 Estimate**		**Other**	
Beginning Net PP&E	$19,000M	OM&A	$2,000M	Deemed ROE	10%
Ending Net PP&E	$21,000M	Cost of Power	$1,000M	Cost of debt	5%
Beg & End PP&E for non-regulated business	$2,000M	Depreciation	$600M		
Supplies & Inventory	$20M	Income Tax	$120M	Deemed equity	40%
Total Assets	$30,000M			Deemed debt	60%
Equity	$15,000M			2017 demand	100 tWh
Debt	$15,000M	**All items provided except for the non-regulated PP&E are associated with rate regulation activities*			
% Equity	50%				
% Debt	50%				

Part 1: Determine the components for the revenue requirement.

The basic formula in Ontario is:

*Revenue requirement = (rate base*WACC) + OM&A + cost of power + depreciation + income tax*

Step 1A - Determine the rate base

The rate base is essentially the assets that a utility uses to provide a service to ratepayers.

A simplified formula for the rate base is:

Rate Base = Average net PP&E for regulated assets + supplies & inventory + 7.5% x (OM&A + Cost of Power)

The last term represents an estimation of the working capital required by the utility over the year.

Using the assumptions about our utility above, we can determine the rate base.

Average PP&E for regulated assets

Average Net PP&E	$20,000M	*This is the average PP&E for the year, taking the average of $19B and $21B net PP&E*
Less: Non-regulated PP&E	-$2,000M	*Cannot include non-rate regulated assets in the rate base.*
Mid-year net PP&E	$18,000M	
Supplies & Inventory	$20M	
Working Capital	$225M	*7.5% of ($2B in OM&A + $1B of Cost of Power)*
Rate Base	**$18,245M**	

Step 1B - Determine the cost of capital (WACC)

When determining the cost of capital, one must use the deemed weightings, not the actual capital structure of the utility.

WACC = weight of deemed equity*deemed cost of equity + weight of deemed debt*utility cost of debt

= 40%(10%) + (60%)*5%

= 7.00%

Step C - Plug in the calculated numbers into the Revenue Requirement Form

*Revenue requirement = (rate base*WACC) + OM&A + cost of power + depreciation + income tax*

= $18,425M x 7% + $2,000M + $1,000M + $600M + $120M

= $4,997M **This is the revenue requirement for 2017**

Note:
OM&A stands for operating, maintenance & administrative expenses. These are the operational costs of running the utility.
The recovery of depreciation allows the utility to essentially collect cash, over time, that equates capital expenditures, ensuring that revenue provides enough cash to fund the investments in PP&E and the cost of using the assets.
The recovery of income tax (or payment in lieu of taxes if not a privately run utility) ensures that cash is collected to pay taxes over time.

Part 2: Determine the Amount of Electricity Utilized by Customers (power demand)

Utilities must forecast the demand, using historical data and other information, to predict how much power customers will use over time.
The revenue requirement divided by the estimated power demand results in the standard rate that is applied for a specific energy unit.
This would be the distribution or transmission rate that the utility would charge customers.

From above, the revenue requirement was determined as	$4,997M
The estimated power usage from above is	100 tWh
Divide the revenue requirement by the "power base":	$49.97M per tWh
This translates to a standard rate charged to customers of	$49.97 per mWh

Part 3: Determining regulatory asset balances

Example 1 - Regulatory Asset
It is now the end of 2018.

Let's assume that all variables there were estimated are the same except that OM&A was $100M higher in 2017 than expected ($2,100M instead of $2,000M). The rates that the utility charged have only led to the recovery of $2,000M. Let's also assume that in 2018, the utility increases its revenue requirement to collect the $100M in OM&A for the prior year. The impact on the statements, without regulatory accounting, would be:

		2017		2018	
Statement	Item	Dr.	Cr.	Dr.	Cr.
Income Statement	Additional OM&A	100			
Income Statement	Additional Revenue				100
Balance Sheet	Cash (assume cash collection)		100	100	

Income is thus lower in 2017 and higher in 2018; revenues and expenses do not match each other by occurring in the same period.

Under regulatory accounting, the utility would be allowed to defer the recognition of the expense until a later period when the cost is recovered from ratepayers. Thus, in the utility's books under regulatory accounting, it could reverse the expense and instead recognize a regulatory asset - the future right to collect this amount from ratepayers. The impact on the statements, in this example, would be:

		2017		2018	
Statement	Item	Dr.	Cr.	Dr.	Cr.
Balance Sheet	Regulatory Asset	100			100
Income Statement	Amortization of regulatory Asset			100	
Income Statement	Additional Revenue				100
Balance Sheet	Cash		100	100	

This essentially allows the expense to be deferred to the balance sheet, with the expense (now as amortization) hitting the income statement in 2018, matching with the revenue collected from customers. This has a "smoothing" effect on net income. **Think "prepaid asset".**

Let's examine another example.

Example 2 - Regulatory Liability

It is now the end of 2018.

Let's assume that all variables there were estimated are the same except that actual customer power usage was 1 tWh higher. This means that customers paid more for the fixed costs associated with the rates (e.g., depreciation, OM&A), as the cost of power is passed on to customers. Let's assume this amount is $20M. This amount would have to be refunded (assume 2018 refund) to customers (aka ratepayers).

Without regulatory accounting, the result would be, focusing on the income statement:

		2017		2018	
Statement	Item	Dr.	Cr.	Dr.	Cr.
Income Statement	Reduction in revenue			20	
Income Statement	Additional Revenue		20		

In 2018, the revenue requirement would be reduced by $20M; revenues and "expenses" (in this case refunds) do not occur in matching periods.

With regulatory accounting:

		2017		2018	
Statement	Item	Dr.	Cr.	Dr.	Cr.
Income Statement	Reduction in revenue			20	
Income Statement	Additional Revenue				20
Balance Sheet	Regulatory Liability		20	20	

The recognition of the revenue has been deferred to 2018 so it matches the period when the refund is given to customers; thus revenues and expenses match in the same period. **Think unearned revenue.**

Variance and Deferral Accounts

Variance and deferral accounts are approved by the OEB to record the difference between actual costs and the costs estimated within rates. Future rate applications then ask for these assets to be disposed of through a rate rider - an additional charge (or refund) provided to customers to settle the variance between actual and estimated costs.

From: Ronald Kwan
To: John Kim; Francisco Chinchon
Subject: FW: Subcommittee - Equity Injection/OPG Share purchase
Date: Thursday, March 09, 2017 1:47:26 PM

Hi,

I'll respond with John, but if you two can work together on this, that would be great.

Thanks,
Ron

From: LEE John -TREASURY [mailto:john.s.lee@opg.com]
Sent: March-09-17 13:29
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
Cc: CROZZOLI Carlo -CBUSDEV&STRT <carlo.crozzoli@opg.com>; GRECO Clara -LAWDIV <clara.greco@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; HAHN PARKER Janet -TREASURY <j.hahnparker@opg.com>
Subject: Subcommittee - Equity Injection/OPG Share purchase

Steen/Mike/Ron:

Further to our call, can you identify a member from your team who can work with OPG (Clara Greco) on this joint initiative to establish a process to facilitate the equity injection requirements necessary to support the GA deferral financing.

Thanks

John

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From: John Kim
To: Bruno Amara
Subject: FW: Subcommittee - Equity Injection/OPG Share purchase
Date: Thursday, March 09, 2017 3:16:49 PM

Fyi, and a note is requested on how the equity injection would work.

Maybe we can combine the discussion with Adam but the following are the considerations:

Given the equity injection need of 44% to OPG, we kind of need to figure out how to do this. Likely, a TB submission for the injection would be required. Given the settlement at IESO would be on a monthly basis, how to facilitate the proportionate 44% equity injection would need to be figured out. What would be the framework and or delegated authority.

It'd need to issue shares to the Province.

Any tax implications?

Given the monthly injection (potentially), do we contribute cash in advance or as needed? (Do we care about borrowing frequently – CMD's concern, in my view)

What other areas do we need to work with? TBS OPCD?

Could we utilize convertible loan of some sort?

This injection would need to be classified as an operating asset.

Do we have OPG pay dividends during the period of capitalizing interest?

The 2% or rate of inflation increase, how does this play into the whole project?

From: Ronald Kwan
Sent: Thursday, March 09, 2017 1:59 PM
To: 'LEE John -TREASURY' <john.s.lee@opg.com>
Cc: 'GRECO Clara -LAWDIV' <clara.greco@opg.com>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Oops, thanks John.

Ron

From: Ronald Kwan
Sent: March-09-17 13:51
To: 'LEE John -TREASURY' <john.s.lee@opg.com>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>;

Mike Manning <Mike.Manning@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
Cc: CROZZOLI Carlo -CBUSDEV&STRT <carlo.crozzoli@opg.com>; GRECO Clara -LAWDIV <clara.greco@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; HAHN PARKER Janet -TREASURY <j.hahnparker@opg.com>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Hi John,

I'm cc'ing John Kim on this email chain, as he can be Clara Greco's contact on this from my team.

Thanks,
Ron

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Sent: March-09-17 13:29
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From: John Kim
To: Bruno Amara
Subject: FW: TDS.docx
Date: Thursday, April 20, 2017 4:41:24 PM
Attachments: TDS.docx

I'm tempted to say 'looks good'.

From: Ken Kandeepan
Sent: Thursday, April 20, 2017 4:33 PM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Psinas <John.Psinas@ofina.on.ca>
Subject: TDS.docx

Hi all

As promised, John and I have tried to keep it as short as possible, feel free to edit.

Thanks

Ken k

Options for Equity Injection from TD Securities

When developing options for structuring the equity injection from the Province to OPG amounting to 44% of the debt incurred by the OPG Trust set up to purchase the regulatory asset from IESO the following underlying principles need to be addressed.

- The equity injection will be provided on a monthly/quarterly basis to OPG by the Province.
- The equity injection results in the Province, the sole shareholder of OPG receiving shares from OPG whose valuation is based on a determined and agreed upon methodology.
- This methodology can be as simple as book value or can be based on some kind of a DCF.
- Given the time limited nature of the equity injection the Province anticipates repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some kind of optionality to be exercised by the Province as and when repayment is required. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, given the potentiality of a new government's different policies subsequent to future elections.
    - OPG can issue preference shares again with some kind of optionality for repayment. Preference shares, especially those with a specified annual dividend will ensure that the Province remains whole in terms of the incremental interest costs it incurs on the equity injection.
- Other factors to be considered for repayment:
    - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
    - Should the senior debt be repaid first or should repayment be on a pari-passu basis
    - OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.

From: John Kim
To: Carlos Yep
Subject: FW: TDS.docx
Date: Thursday, April 20, 2017 5:03:59 PM
Attachments: TDS.docx

Could you take your pen to this first please? We could but we're under deadlines today….so won't be able to until tomorrow.

From: Ken Kandeepan
Sent: Thursday, April 20, 2017 4:33 PM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Psinas <John.Psinas@ofina.on.ca>
Subject: TDS.docx

Hi all

As promised, John and I have tried to keep it as short as possible, feel free to edit.

Thanks

Ken k

Options for Equity Injection from TD Securities

When developing options for structuring the equity injection from the Province to OPG amounting to 44% of the debt incurred by the OPG Trust set up to purchase the regulatory asset from IESO the following underlying principles need to be addressed.

- The equity injection will be provided on a monthly/quarterly basis to OPG by the Province.
- The equity injection results in the Province, the sole shareholder of OPG receiving shares from OPG whose valuation is based on a determined and agreed upon methodology.
- This methodology can be as simple as book value or can be based on some kind of a DCF.
- Given the time limited nature of the equity injection the Province anticipates repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some kind of optionality to be exercised by the Province as and when repayment is required. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, given the potentiality of a new government's different policies subsequent to future elections.
    - OPG can issue preference shares again with some kind of optionality for repayment. Preference shares, especially those with a specified annual dividend will ensure that the Province remains whole in terms of the incremental interest costs it incurs on the equity injection.
- Other factors to be considered for repayment:
    - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
    - Should the senior debt be repaid first or should repayment be on a pari-passu basis
    - OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.

From: Fung, Felix (TBS)
To: Chochla, Megan (CAB); John Kim
Cc: James Strang (MOF); Madeleine Morgenstern (PPAGS)
Subject: FW: Updated forecast for OREC
Date: Wednesday, March 22, 2017 2:31:36 PM
Attachments: QA - Revised Rebate Cost Post FHP - to DMO_ESPD ADM Approved_ESP_v0.1.docx

---

Hi Megan and John,

We got a revised forecast from ENE on OREC and on the 2017-18 figure for the electricity support program. Please see attached.

Thanks,
Felix

From: Katona, Keley (ENERGY)
Sent: March-21-17 12:14 PM
To: Fung, Felix (TBS)
Cc: Morgenstern, Madeleine (TBS); An, Tai (ENERGY); Gounden, Pratima (ENERGY); Strang, James (TBS); Chatterjee, Jeet (ENERGY)
Subject: FW: Updated forecast for OREC

Hi Felix,
See attached in response to the below.
Keley

From: Fung, Felix (TBS) <Felix.Fung@ontario.ca>
Sent: Saturday, March 4, 2017 3:14 PM
To: Katona, Keley (ENERGY); An, Tai (ENERGY); Gounden, Pratima (ENERGY)
Cc: Morgenstern, Madeleine (TBS); Strang, James (TBS)
Subject: Updated forecast for OREC

Hi Keley,

We were on a teleconference with Karen and she mentioned there's a revised forecast for OREC as a result of the approval of the electricity mitigation package from earlier this week. Do you have the updated forecast that you can share with us, to ensure we are tracking the right numbers as part of the planning process?

Thanks
Felix

Sent from my BlackBerry 10 smartphone on the Rogers network.

Q&A Response

Q. What is the revised cost forecast for the 8% rebate as result of the measures announced in Ontario's Fair Hydro Plan?

Key measures announced in Ontario's Fair Hydro Plan (OFHP) are expected to reduce the cost of the 8% rebate for the Province. The cost to the Province is expected to decrease as the total cost of electricity paid by eligible customers, upon which the rebate is based, will be reduced.

ENERGY has updated the cost forecast for the 8% rebate based upon the following:

- Independent Electricity System Operator updated its Ontario Planning Outlook (OPO) with respect to a typical bill for a residential consumer as outlined in the March 1, 2017 Cabinet Submission. This revised OPO price outlook is inclusive of all the recently announced measures including cancellation of LRP II and EFW and expansion of ICI.

- ENERGY's estimates of the reduction to a typical bill for a residential consumer as a result of the Global Adjustment (GA) refinancing and funding electricity support programs through provincial revenues as announced in the OFHP.

- ENERGY's estimates of the reduction in costs for consumers that benefit from electricity support programs as announced in the OFHP (i.e., expanded Rural or Remote Rate Protection, enhanced Ontario Electricity Support Program and the First Nations Delivery Rebate). For Fiscal Year 2017-2018 this includes a 50% adjustment to the cost given that implementation of the expanded programs is expected to be deferred to September 2017.

	2017-2018	**2018-2019**	**2019-2020**
ENERGY Estimate **(August 26, 2016)** ($ million)	1,006	1,004	944
ENERGY's Revised Cost Estimate **(September 8, 2016)** ($ million)	1,119	1,086	1,171
ENERGY Revised Estimate **(March 15, 2017)** ($ million)	939	882	882
Change: **March 15, 2017** vs **August 26, 2016**	-7%	-12%	-7%
Change: **March 15, 2017** vs **September 8, 2016**	-16%	-19%	-25%

NOTE: The above estimates are subject to variances as result of uncertainties in demand, natural gas prices and other factors. These uncertainties also impact the variance account for the Regulated Price Plan (RPP).

Estimate Assumptions:

	2017	2018	2019	2020
Annual Average Electricity Price, Pre-tax, after Mitigation Programs ($ per month)	127*	120	122	125

***Note:** Value adjusted from $117 to account for deferral of implementation to May 2017 (GA refinancing) and July 2017 (tax-basing electricity support programs).
Source: OPO February 2017 and ENERGY estimates / Cabinet Submission March 1, 2017

	2017-2018	2018-2019	2019-2020	2020-2021
Cost of Expanded Electricity Support Programs in OFHP ($m)	499**	753	829	892

****Note:** Value adjusted from $665 million to account for deferral of implementation to July 2017.
Source: ENERGY estimates / Cabinet Submission March 1, 2017

	Base year
Total volume eligible for rebate (TWh)	71
Residential sector total eligible for rebate (TWh)	42
Portion of residential sector on retail contract (%)	10
Retail Premium: Residential ($/kWh)	0.03
Multi-unit sector total eligible for rebate (TWh)	7
Portion of multi-unit sector on retail contract (%)	10
Retail Premium: multi-unit ($/kWh)	0.02
Commercial sector total eligible for rebate (TWh)	20
Portion of commercial sector on retail contract (%)	26
Retail Premium: Commercial ($/kWh)	0.02
Agricultural sector total eligible for rebate (TWh)	1.9
Residential demand growth (2016-2023)	-0.6%
Commercial demand growth (2016-2023)	0.3%

Source: OCEB database, 2016 OPO and ENERGY analysis

From: Ronald Kwan
To: John Kim; Tobias P. Whitfield (MOF)
Cc: Gavin He
Subject: FW: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Wednesday, April 12, 2017 9:32:41 AM

FYI.

Ron

-----Original Message-----
From: Smith, Elliot [mailto:ESmith@osler.com]
Sent: April-12-17 00:39
To: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James Rehob (ENERGY) <James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com>; Dan Shear (ENERGY) <Dan.Shear@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Tim Christie (ENERGY) <Tim.Christie@ontario.ca>; Paul Johnson (ENERGY) <Paul.Johnson3@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Hilary Cox (ENE) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Steve,
We have been corresponding with Torys today and are in the process of preparing a consolidated mark-up reflecting comments from the Dealers and OPG, which will also incorporate some of the comments received this evening from the IESO/Stikemans. We will circulate the consolidated mark-up before tomorrow's meeting.

Elliot

Elliot Smith
Partner - Energy, Construction & Infrastructure

416.862.6435
DIRECT
416.862.6666
FACSIMILE
esmith@osler.com

Osler, Hoskin & Harcourt LLP
Box 50, 1 First Canadian Place
Toronto, Ontario, Canada M5X 1B8

-----Original Message-----
From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]
Sent: Tuesday, April 11, 2017 1:54 PM
To: Smith, Elliot <ESmith@osler.com>
Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>
Subject: Re: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Elliot, in the interest of time, it may make sense for me to walk you through where your items have been addressed. Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>
Dir: 416-863-3086<tel:416-863-3086>

On Apr 11, 2017, at 1:19 PM, Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>> wrote:

Stephen,
This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot
<image002.gif>

Elliot Smith
Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com<mailto:esmith@osler.com>

Osler, Hoskin & Harcourt LLP
Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

<image003.gif><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.osler.com_&d=DwIFAw&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=KLmElVzN-0Plt_BDuIe0R5Q8m5pp7v4xu8svRTd-ucA&s=Yo2-ByL9nOSid7ELufMf7HtuuQXFqrJeeswSiMnPnjc&e= > <image004.jpg>

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]
Sent: Monday, April 10, 2017 11:16 PM
To: Feldman, Michael <mfeldman@torys.com<mailto:mfeldman@torys.com>>; JACKSON, ADAM <ADAM.JACKSON@blakes.com<mailto:ADAM.JACKSON@blakes.com>>; Peter Hamilton (PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>) <PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>>; LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>; WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>; WILSON, JUDY <JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; Hill, Krista <khill@torys.com<mailto:khill@torys.com>>; Ramchandani, Rima <rramchandani@torys.com<mailto:rramchandani@torys.com>>; Keizer, Charles <ckeizer@torys.com<mailto:ckeizer@torys.com>>; Myers, Jonathan <jmyers@torys.com<mailto:jmyers@torys.com>>; Emes, Aaron <aemes@torys.com<mailto:aemes@torys.com>>; Mansoori, Nina <nmansoori@torys.com<mailto:nmansoori@torys.com>>; Wortsman, Jerald <jwortsman@torys.com<mailto:jwortsman@torys.com>>; Bomhof, Scott <sbomhof@torys.com<mailto:sbomhof@torys.com>>; Estey, Bill <bestey@torys.com<mailto:bestey@torys.com>>; Watson, Gwen <gwatson@torys.com<mailto:gwatson@torys.com>>; James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>; O'Brian, Adam <aobrian@hunton.com<mailto:aobrian@hunton.com>>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com<mailto:MFitzpatrick@hunton.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; VINER, JON <JON.VINER@blakes.com<mailto:JON.VINER@blakes.com>>; Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>>; Sebastiano, Rocco <RSebastiano@osler.com<mailto:RSebastiano@osler.com>>; Michael.Boll@ieso.ca<mailto:Michael.Boll@ieso.ca>; GZacher@stikeman.com<mailto:GZacher@stikeman.com>; aobrian@hunton.com<mailto:aobrian@hunton.com>; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca<mailto:Tim.Christie@ontario.ca>>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca<mailto:Paul.Johnson3@ontario.ca>>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Rehob, James (ENERGY) <James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>; 'Gavin He' <Gavin.He@ofina.on.ca<mailto:Gavin.He@ofina.on.ca>>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca<mailto:Cindy.Veinot@ontario.ca>>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca<mailto:Sarah.Hosick@ontario.ca>>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; kim.marshall@ieso.ca<mailto:kim.marshall@ieso.ca>; 'LEE John -TREASURY' (john.s.lee@opg.com<mailto:john.s.lee@opg.com>) <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca<mailto:Hilary.Cox@ontario.ca>>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>>; Wolff, Michael <Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>>; Holloway, Harold <Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>>; Akman, Steven <Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>>; Manii, David <david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>>; Nevison, Gary <Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>
Dir: 416-863-3086

_____

<image001.gif>

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com&d=DwIFAw&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=KLmElVzN-0Plt_BDuIe0R5Q8m5pp7v4xu8svRTd-ucA&s=r4jHbz45ikUjZqE-B4eZ85WDiG_wM5-1-A1juSKkHZg&e= > | Twitter<https://urldefense.proofpoint.com/v2/url?u=http-3A__twitter.com_BlakesLaw_&d=DwIFAw&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=KLmElVzN-0Plt_BDuIe0R5Q8m5pp7v4xu8svRTd-ucA&s=TogM-fDzl_41n9BL6t-rCsnmT1HwVipCdjiHGHax_zw&e= > | Unsubscribe<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com_English_Resources_Bulletins_Pages_unsubscribe.aspx&d=DwIFAw&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=KLmElVzN-0Plt_BDuIe0R5Q8m5pp7v4xu8svRTd-ucA&s=Qi8oVZcZDi9d3JD7rckKsdIVn9jrlDcWD4anCXRcGrE&e= >

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****

From:	John Kim
To:	Tobias P. Whitfield (MOF)
Subject:	FW: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Tuesday, April 11, 2017 8:58:53 AM
Attachments:	TOR_2528-#23107566-v9-_Fair_Hydro_Act_.DOCX ATT00001.htm TOR_2528-#23107566-vpdf-_Fair_Hydro_Act_.PDF ATT00002.htm

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Hi Toby,

FYI, and let me know if any comments.

Thanks,

John

From: Gavin He
Sent: Monday, April 10, 2017 11:38 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi John,

Please find attached the revised draft legislative summary for your review.

Please note that any comments are due by 2:00 p.m. tomorrow.

Regards,
Gavin He

Begin forwarded message:

> **From:** "ASHBOURNE, STEPHEN" <STEPHEN.ASHBOURNE@blakes.com>
> **To:** "Feldman, Michael" <mfeldman@torys.com>, "JACKSON, ADAM" <ADAM.JACKSON@blakes.com>, "Peter Hamilton (PHamilton@stikeman.com)" <PHamilton@stikeman.com>, "LEE John -TREASURY" <john.s.lee@opg.com>, "RYFA Ken -TREASURY" <ken.ryfa@opg.com>, "WONG Leslie -LAWDIV" <leslie.wong@opg.com>, "MCAULEY Tyler -LAWDIV" <tyler.mcauley@opg.com>, "WILSON, JUDY" <JUDY.WILSON@blakes.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "Hill, Krista" <khill@torys.com>, "Ramchandani, Rima" <rramchandani@torys.com>, "Keizer, Charles" <ckeizer@torys.com>, "Myers, Jonathan" <jmyers@torys.com>, "Emes, Aaron" <aemes@torys.com>, "Mansoori, Nina" <nmansoori@torys.com>, "Wortsman, Jerald" <jwortsman@torys.com>,

"Bomhof, Scott" <sbomhof@torys.com>, "Estey, Bill" <bestey@torys.com>, "Watson, Gwen" <gwatson@torys.com>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Alan Hibben" <alan.hibben@rogers.com>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "O'Brian, Adam" <aobrian@hunton.com>, "Fitzpatrick, Michael F." <MFitzpatrick@hunton.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "VINER, JON" <JON.VINER@blakes.com>, "Brad.Purkis@tdsecurities.com" <Brad.Purkis@tdsecurities.com>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "ESmith@osler.com" <ESmith@osler.com>, "RSebastiano@osler.com" <RSebastiano@osler.com>, "Michael.Boll@ieso.ca" <Michael.Boll@ieso.ca>, "GZacher@stikeman.com" <GZacher@stikeman.com>, "aobrian@hunton.com" <aobrian@hunton.com>, "Tim Christie (ENERGY)" <Tim.Christie@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "Paul Johnson (ENERGY)" <Paul.Johnson3@ontario.ca>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>, "Gavin He" <Gavin.He@ofina.on.ca>, "Veinot, Cindy (TBS)" <Cindy.Veinot@ontario.ca>, "Hosick, Sarah (TBS)" <Sarah.Hosick@ontario.ca>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "kim.marshall@ieso.ca" <kim.marshall@ieso.ca>, "'LEE John -TREASURY' (john.s.lee@opg.com)" <john.s.lee@opg.com>, "Hilary Cox (ENE)" <Hilary.Cox@ontario.ca>, "Hilloowala, Maharukh" <Maharukh.Hilloowala@tdsecurities.com>, "Wolff, Michael" <Michael.Wolff@tdsecurities.com>, "Holloway, Harold" <Harold.Holloway@tdsecurities.com>, "Akman, Steven" <Steven.Akman@tdsecurities.com>, "Manii, David" <david.manii@tdsecurities.com>, "Nevison, Gary" <Gary.Nevison@tdsecurities.com>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com[blakes.com] | **Twitter**[twitter.com] | **Unsubscribe**[blakes.com]

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Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act"

Article 1 – Purpose

The Province has and continues to encourage the construction and development of facilities for the long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer, feed in tariff and other similar programs (the "Green Generation Initiative"). The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative will be well in excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative equitably across present and future Retail Consumers (the "Fair Allocation Plan").

If the Fair Allocation Plan determines that the equitable allocation of the costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period should be reduced below the amount that currently would be charged based on the Green Costs

Adjustment, then the amount payable by such Retail Consumers and in turn available to IESO will, in the aggregate, be less than the amount payable by the IESO to the generators in respect of such period. In this case IESO will need to obtain funding from another source to cover such a shortfall. If a funding obligation is incurred by IESO to cover such a shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs incurred will become payable in one or more future periods. In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding amounts when they become due and payable, this Act imposes irrevocable and non-bypassable financial obligations on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts. The right and interest in and to collect such financial obligations will take the form of the Regulatory Asset contemplated in this Act, which will constitute property rights and interests. Interests in the Regulatory Asset may be sold and absolutely assigned by IESO to one or more financing entities, which in turn will finance their acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf such financing entities by a financial services agent under the Financing Plan contemplated in this Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations, to be borne by the future Retail Consumers of the period in which such payment obligations become due, with the benefits of the Green Generation Initiative allocated to such future Retail Consumers under the Fair Allocation Plan.

The purpose of this Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this Act:

> “Absolute Assignee” means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> “Actual” means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Financial Services Agent whose records shall be determinative for the purposes of this Act except to the extent of a manifest calculation error.
>
> “Additional Funding Charges” means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Financial Services Agent on behalf of, the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on the Absolute

Assignee or incurred by on behalf of the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

"Allocation Factor" means, in respect of a Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the Retail Consumer by the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to individual Retail Consumers of the applicable Retail Consumer Group based on its Allocation Factor.

"Collected Amount Adjustment" means, in respect of a True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the Financial Services

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[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those may be identified and caught by the True-Up.

[2] This allocation may be volumetric or some combination of a flat amount and a volumetric charge. Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3), including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by any of a Electricity Distributor (or in its stead, by an Alternative Servicer), by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any

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[3] This would pick up adjustments based on actual collection experience, changes in the retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

Retail Consumer Group, the estimated value (in current dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Act except to the extent of a manifest calculation error.

"Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition under the Financing Plan.[6]

"Financing Plan" means the written plan prepared by the Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 9 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred by an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (j) the cash flows arising from time to time or otherwise derived from an Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to its Funding Obligations, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other

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[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

"Generator" means a generator of electricity that is subject to the *Electricity Act, 1998*.

"Global Adjustment" has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" has the meaning given in Article 1.

"IESO" means the Independent Electricity System Operator created pursuant to Part II of the *Electricity Act, 1998*.

"IESO Available Amount" means, for a Reference Period, the lesser of (a) the amount (if any) by which (i) the Maximum Transition Charge Amount for the Reference Period, exceeds (ii) Period Finance Amount for the Reference Period, and (b) the IESO Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Investment Interest.

"Pledgee" means a person to whom an Absolute Assignee grants a Pledge.

"Program End Date" means •, [2047].

"Province" means the Province of Ontario.

"Redemption Amount" means the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the Measurement Date to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of the Absolute Assignee by applying the net proceeds obtained by the Absolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rights and interests described in Section 6(1), which collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which IESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent of) the IESO Retained Interest and (b) each Absolute Assignee, as owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively IESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7).

"Related Rights" means all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their

own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with the *Electricity Act, 1998*.

"Servicer" means IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Retail Consumer in respect of a Reference Period, (a) the Period Transition Charge, (b) multiplied by its Allocation Factor in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this Act to have been received upon the collection of a Transition Charge paid by or on behalf of a Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 11(2).

Article 3 – Transition Charges

(1) Retail Consumer Obligation to Pay a Transition Charge – Each Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Retail Consumers** – Until paid, a Transition Charge charged to a Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Retail Consumer to the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Retail Consumer under the Electricity Invoice or otherwise.[9]

(3) **No Set-Off or Reduction** – A Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 9(3)) are deemed to be irrevocable, final and effective without any further action, except to the extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

Article 4 – Invoicing of Transition Charges

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued

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[8] Determine if this is critical for rating and markets. Logistics under consideration.

[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consider if it is helpful to integrate the existing regulatory scheme for invoicing and collections (regarding RPP) in the legislation.

by the Electricity Distributor or if applicable by the Alternative Servicer to the Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services Agent on its behalf) shall provide the OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative, except to the extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the Allocation Factor for each Retail Consumer of the applicable Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Retail Consumer of the applicable Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a Retail Consumer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, except to the extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative

Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Servicer to ensure that Transition Charges are properly charged to Retail Consumers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts to collect amounts owing by Retail Consumers in respect of Transition Charges charged to such Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(3) **Electricity Distributor Remittances** – On each applicable Remittance Date, an Electricity Distributor shall remit all Transition Charge Collections received by it from Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

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[10] Mirror collection “standard of care” under applicable legislation.

[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Retail Consumers that pay their Electricity Invoices directly to IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall promptly segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(6) **IESO Remittances** – On each Settlement Date[13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **IESO Successor** – IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[14], then such person shall, if requested by the Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Retail Consumers as provided in this Act; (c) exercise all enforcement rights of the Absolute Assignees for the benefit of an Absolute Assignee; and (d) remit any Transition Charge Collections to the Absolute Assignees or Pledgees, as applicable, each in accordance with its Investment Interest.

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[12] Consider building this obligation into a deemed condition of licence for the IESO.

[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

[14] This is in anticipation of a possible future restructuring of the distribution system.

(10) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[15]

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity

[15] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Retail Consumer reduces its payment of Transition Charges, despite this language. Same for Electricity Distributor Remittances and IESO Remittances.

Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Absolute Assignees, each with respect to its Investment Interest, and the Pledgees as applicable.[16]

(14) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute a current and irrevocable property right and interest consisting, collectively, of the following rights and interests (without duplication):

a. the right of IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this Act;

c. the right to enforce the obligations and indebtedness of each Retail Consumer to pay the Transition Charges charged to the Retail Consumer from time to time in accordance with Article 3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the

[16] Consider adding or substituting this provision for a right to appoint a receiver.

Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Disposition that may arise by operation of any applicable law of the Province, a Disposition by IESO to an Absolute Assignee made under the Financing Plan, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof, and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and

the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Pledge that may arise by operation of any applicable law of the Province, a Pledge by an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected pursuant to the PPSA.[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may attach to the property rights and interests in the Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. All provisions of the PPSA shall apply to the Regulatory Asset on the basis that it is intangible personal property, except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

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[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

(8) **Collective Action Required** – If a Regulatory Asset Owner's rights and interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective and coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.

Article 7 – Establishment of the Fair Allocation Plan[18]

(1) Adoption of the Fair Allocation Plan – The Delegate may, [by written declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Act, except if amended, amended and restated or terminated by a further written declaration made by the Delegate in compliance with Section 7(4).

(2) Principles and Parameters – A Fair Allocation Plan shall seek to allocate Future Fair Share of Green Transition Benefits across present and future Retail Consumer Groups on a basis that the Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters:

1. Future Fair Share of Green Transition Benefits should be allocated over the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods for the purpose of identifying applicable Retail Consumer Groups and allocating Future Fair Share of Green Transition Benefits among them on a relative basis over time.

3. The share of Future Fair Share of Green Transition Benefits allocable to a particular Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the Retail Consumer Group over such Reference Period.

4. The share of Future Fair Share of Green Transition Benefits to be allocated to a Retail Consumer Group and any future Retail Consumer Group at a particular time should not exceed the Estimated Future Green Transition Benefits, measured in respect of the Reference Periods following such particular time and to the Program End Date.

5. No future Retail Consumer Group should be allocated an unreasonably disproportionate share of Estimated Future Green Transition Benefits. Except in exceptional circumstances or in the case of any reallocation of an Over-Assessed Amount as contemplated in 7, below, the Future Fair Share of Green Transition Benefits to be allocated under a Fair Allocation Plan to any future

18 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current procurement contracts and not invest in extending service lives to secure further procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*.

6. The time value of money should be reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) **Attribution Methodology** – The Fair Allocation Plan shall specify the Attribution Methodology for the purposes of allocating the Period Transition Charges across the Retail Consumers of a particular Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that is considered by the Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) **Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare, Implement and Amend the Financing Plan** – The Financial Services Agent shall be authorized to prepare, implement and amend the Financing Plan. If the Financial Services Agent is unwilling or unable to prepare and propose the adoption of the Financing Plan, the Delegate may by written declaration designate one or more other persons who shall be authorized to prepare, implement and amend the Financing Plan.

(2) **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions. The Financing Plan shall have regard to the principles and parameters set forth in Schedule 3 and such other conditions and requirements as may be specified in a written declaration of the Delegate or in accordance with the Regulation.

(3) **OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) Replacement of the Administrative Agent – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) Obligation to Apply IESO Remittances – The Financial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Absolute Assignees, or otherwise in respect of or as proceeds from an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.

(7) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) Incurrences are Binding – Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article 10 – Compliance Matters[19]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Act, the OEB shall have the right, jurisdiction, power and authority to examine the books and records of *[Insert names if any]*.

(2) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG

[19] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article 11 – Undertaking of the Lieutenant Governor in Council[21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly, including through the introduction of any bill or the passing of any legislation or regulation having such effect. The amount of Transition Charges determined under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council, including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the Absolute Assignees or any Pledgee from time to time;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

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[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

(4) **Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 11.[22]

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 12 – Regulations

Regulations may be made under this Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 13- Miscellaneous[23]

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[22] Requested by Torys. For discussion.

[23] OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Act shall be required with respect to the actions to be taken in compliance with this Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Act, if any provision of this Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Act that is taken by any person who is or may become obligated or have duties that arise under this Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Act are intended to be severable and that the Legislature would have enacted this Act even if any Article, Section, paragraph or subparagraph of this Act held to be unconstitutional or invalid had not been included in this Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles and Parameters for Establishing the Financing Plan

The following principles and parameters provide a guideline as to what a Financing Plan should address:

(1) in respect of each Reference Period, make reference to the allocations of Future Fair Share of Green Transition Benefits to each Reference Group contemplated by the Fair Allocation Plan;

(2) estimate IESO Funding Shortfalls for each Reference Period;

(3) consider alternative funding arrangements suitable to fund the estimated IESO Funding Shortfalls, including short term and/or long term Funding Obligations;

(9) consider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that payments made for a Reference Period reasonably correspond to the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) reflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Retail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology);

(6) incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations should not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Financial Services Agent shall cause the applicable Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Financial Services Agent will select counterparties under any transaction to be entered into by an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding Shortfalls from time to time on a basis that is consistent with the allocations of Future Fair Share of Green Transition Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Financial Services Agent and other agents and service providers to the Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) describe the requirements applicable to any special purchase entity that will purchase an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities; and

(16) the basis on which any Pledge may be given or effected.

CONFIDENTIAL AND PRIVILEGED

Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act" ~~– Part V.2~~

Article 1 – Purpose[1]

~~IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as~~The Province has and continues to encourage the construction and development of facilities for the ~~purpose of~~ long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer ~~and~~, feed in tariff and other similar programs (the "Green Generation Initiative"). ~~[The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers.~~ The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ~~ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).~~electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

~~Each month, the IESO determines the Global Adjustment payable by consumers for the consumption~~The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province~~. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts~~ under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity~~ for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from~~, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative~~, on the one hand, and the costs of~~ will be well in

[1] ~~Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.~~

[2] ~~Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.~~

excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative ~~borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect~~will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that ~~can be applied from time to time in order to~~ establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative ~~across present and future Ratepayers. A plan to allocate such costs and benefits~~ equitably across present and future ~~Ratepayers may be developed based on those principles and parameters (a~~Retail Consumers (the "Fair Allocation Plan").

If ~~a~~the Fair Allocation Plan determines that the equitable allocation of the ~~Global Adjustment to the Ratepayers~~costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period ~~in respect of the Power Contracts~~ should be reduced below the amount ~~otherwise determined,~~that currently would be charged based on the Green Costs Adjustment, then the amount payable by such ~~Ratepayers to Electricity Distributors in respect of such period,~~Retail Consumers and in turn ~~by the Electricity Distributors to the~~available to IESO~~, would~~ will, in the aggregate, be less than the amount payable by the IESO to the ~~Generators under the Power Contracts~~generators in respect of such period. ~~If the difference is greater than any net Power Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period,~~In this case IESO will need to obtain funding from another source~~, which could include funding from third party sources operating in public and private capital markets~~ to cover such a shortfall. If a funding obligation is incurred ~~in order to enable the~~by IESO to cover such a ~~funding~~ shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs ~~will be~~ incurred ~~and may~~will become payable in one or more ~~other~~future periods. ~~It will be necessary to provide~~In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding ~~obligations and to pay related funding costs with certainty when the funding obligations~~amounts when they become due and payable~~. This Part~~, this Act imposes irrevocable and non-bypassable financial obligations ~~of Ratepayers~~on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations~~, which~~ will take the form of the Regulatory Asset contemplated in this ~~Part and~~Act, which will constitute property rights and interests. ~~The~~Interests in the Regulatory Asset ~~will~~may be sold and absolutely assigned ~~and will belong~~by IESO to one or more~~ newly created~~ financing entities, which in turn will finance their ~~purchase of such Regulatory Asset~~acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf ~~the~~such financing entities by ~~an administrative~~a financial services agent~~ (initially OPG),~~ under the Financing Plan

~~[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]~~

contemplated in this ~~Part~~Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations ~~and~~, to be borne by the future ~~Ratepayers~~Retail Consumers of the period in which such payment obligations become due, with the ~~costs and~~ benefits of the Green Generation Initiative ~~charged~~allocated to such future ~~Ratepayers~~Retail Consumers under the Fair Allocation Plan.

The purpose of this ~~Part~~Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future ~~Ratepayers~~Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this ~~Part~~Act:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the ~~Administrative~~Financial Services Agent whose records shall be determinative for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by ~~the Regulatory Asset Owners~~or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the ~~Administrative~~Financial Services Agent on behalf of, ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on ~~a Regulatory Asset Owner~~the Absolute Assignee or incurred by on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the ~~Administrative~~Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager ~~of~~or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in

good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

~~"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the Financing Plan in compliance with the requirements set out in Schedule 2.~~

"Allocation Factor" means, in respect of a ~~Ratepayer~~Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the ~~Ratepayer~~Retail Consumer by ~~[IESO]~~the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[4][1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[5][2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to ~~the~~ individual ~~Ratepayers~~Retail Consumers of the applicable ~~Ratepayer~~Retail Consumer Group based on its Allocation Factor.

~~"Bypass Charge" means [To be developed].~~[6]

"Collected Amount Adjustment" means, in respect of a ~~Reference~~True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the ~~Administrative~~Financial Services Agent, as applicable, equal to (a) the Estimate of the

[4] ~~Consider basing~~[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those ~~would~~may be identified and ~~rolled into~~caught by the True-Up.

[5] ~~A key question will be how the overall costs will be spread across the rate base. For example, the~~[2] This allocation may be volumetric ~~or not,~~ or some combination of a flat amount and a volumetric charge. ~~This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion~~Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

[6] ~~Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.~~

Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.~~7~~[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of ~~all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset~~an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed ~~by the OEB~~under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by ~~an~~any of a Electricity Distributor (or in its stead, by an Alternative Servicer)~~ or~~, by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means~~,~~ (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the ~~Administrative Agent~~Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any Retail Consumer Group, the estimated value (in current

[3] This would pick up adjustments based on actual collection experience, changes in the ~~Consumer Base~~retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.

"~~Fair Allocation Plan" [has the meaning given in Article 1].~~Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, ~~in respect of~~for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts ~~for~~that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.~~"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.~~

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the

Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8] under the Financing Plan.[6]

"Financing Plan" means the written plan [prepared by the Administrative Agent]Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 89 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfallby an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (ij) the cash flows arising from time to time or otherwise derived from the Regulatory Assetan Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset OwnerAbsolute Assignee during the Reference Period in respect of allits Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to aits Funding ObligationObligations, exceeds (b) the aggregate of all Finance Receiptsamounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

[8] OPG has suggested[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other financing ~~charges, indebtedness,~~charge payments; pass-through payments; payment obligations arising under or in respect of derivatives~~,~~; payment obligations owing to service providers, ~~administrative agents~~Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all ~~taxes payable in connection with the foregoing)~~Additional Funding Charges incurred by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan ~~in order to fund a Funding Shortfall for a Reference Period~~, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.[9]

~~"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.~~[10]Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

~~"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.~~[11]

"Generator" means a generator of electricity that is subject to ~~[this~~the *Electricity Act*~~]~~[12]~~.~~, *1998*.

"Global Adjustment" ~~means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.~~[13]has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" ~~[~~has the meaning given in Article ~~1]~~.1.

~~[9] OPG has asked whether this should include IESO finance arrangements.~~

~~[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.~~

~~[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]~~

~~[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.~~

~~[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").~~

"IESO" means the Independent Electricity System Operator created pursuant to ~~[insert].~~Part II of the *Electricity Act, 1998*.

"IESO ~~Applied Surplus~~Available Amount" means, for a Reference Period, the lesser of (a) the amount~~,~~ (if any~~,~~) by which (i) the ~~IESO Power Contract Net Payment~~Maximum Transition Charge Amount for the Reference Period, exceeds (ii) ~~the GA Power Contract Contribution~~Period Finance Amount for the Reference Period, and (b) the IESO ~~Unapplied Surplus on the last day of the immediately preceding Reference Period.~~ Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO ~~Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.~~Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

~~"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period.~~

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO ~~Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].~~Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"~~IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net~~

~~Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.~~ Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period ~~Transition Charge~~Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by ~~a Regulatory Asset Owner~~the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the ~~Regulatory Asset~~Investment Interest.

"Pledgee" means a person to whom ~~a Regulatory Asset Owner~~an Absolute Assignee grants a Pledge.

"~~Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.~~[14]Program End Date" means •, [2047].

"Province" means the Province of Ontario.

~~"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.~~[15]

[14] ~~Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?~~

[15] ~~Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.~~

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owneran Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation ImplementationMeasurement Date] to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means that a, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of a Regulatory Asset Ownerthe Absolute Assignee by applying the net proceeds obtained by the Regulatory Asset OwnerAbsolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rightrights and interestinterests described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Documentwhich collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which the ServicerIESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent that it has retained any ownership interest in, to or under the Regulatory Assetof) the IESO Retained Interest and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Assetas owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively all of the Regulatory Asset OwnersIESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

~~"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.~~

"Related Rights" means~~, with respect to a Regulatory Asset Owner's Regulatory Asset,~~ all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in ~~relation to~~accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the ~~Regulatory Asset Owner~~Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by ~~a Regulatory Asset Owner~~an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with ~~[this~~the *Electricity Act*[17]~~]~~, *1998*.

"Servicer" means ~~[To be determined]~~IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset ~~Owner [To be determined – collective invoicing agent, and consider expanding].~~Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a ~~Ratepayer~~Retail Consumer in respect of a Reference Period, ~~the sum of~~ (a) ~~[one sixth] of~~ the Period Transition Charge, (b) multiplied by its Allocation Factor ~~and (b) any Bypass Charge charged to the Ratepayer~~ in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this ~~Part~~Act to have been received upon the collection of a Transition Charge paid by or on behalf of a ~~Ratepayer~~Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the ~~Administrative~~Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section ~~10~~11(2).

~~"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].~~[18]

Article 3 – Transition Charges

(1) **~~Ratepayer~~Retail Consumer Obligation to Pay a Transition Charge** – Each ~~Ratepayer~~Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

[17] ~~Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.~~
[18] ~~Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.~~

(2) **Indebtedness of ~~Ratepayers~~Retail Consumers** – Until paid, a Transition Charge charged to a ~~Ratepayer~~Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the ~~Ratepayer~~Retail Consumer to the Regulatory Asset Owners, ~~(~~each with respect to its respective interest in the Regulatory Asset~~)~~. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the ~~Ratepayer~~Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the ~~Ratepayer~~Retail Consumer under the Electricity Invoice or otherwise.~~[19]~~[9]

(3) **No Set-Off or Reduction** – A ~~Ratepayer~~Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of ~~Ratepayer~~Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a ~~Ratepayer~~Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section ~~8~~9(3)) are deemed to be irrevocable, final and effective without any further action, ~~in~~except to the ~~absence~~extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

[8] Determine if this is critical for rating and markets. Logistics under consideration.

~~[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation.~~[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. ~~Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis~~Consider if it is helpful to integrate the existing regulatory scheme for ~~a market based credit decision.~~invoicing and collections (regarding RPP) in the legislation.

~~(6) [Anti-avoidance; No-by-pass – Transition Charges charged to a Ratepayer in respect of any Finance Amount incurred under with the Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]~~

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a ~~Ratepayer~~Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the ~~Ratepayer~~Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable ~~Ratepayer~~Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each ~~Regulatory Asset Owner~~Absolute Assignee (or the ~~Administrative~~Financial Services Agent on its behalf) shall provide the ~~Servicer~~OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~[21]OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the ~~Regulatory Asset Owners, which~~Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative ~~in~~, except to the ~~absence~~extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall apply the Attribution Methodology to determine the Allocation Factor for each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a ~~Ratepayer by the Servicer~~Retail Consumer and specified as such in an Electricity Invoice shall be

[20] ~~Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.~~

[21] ~~Should this be a designated government official, rather than an agent appointed by investors?~~

determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, ~~in~~except to the ~~absence~~extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to ~~Ratepayers~~Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor~~,~~ or any Alternative Servicer ~~or any [Alternative Collection Agent]~~ to ensure that Transition Charges are properly charged to ~~Ratepayers~~Retail Consumers and specified as such in Electricity Invoices.

[22] ~~Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts~~]~~ to collect amounts owing by ~~Ratepayers~~Retail Consumers in respect of Transition Charges charged to such ~~Ratepayers~~Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from ~~Ratepayers~~Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(3) **Electricity Distributor Remittances** – On each ~~[~~applicable Remittance Date~~]~~, an Electricity Distributor shall remit all Transition Charge Collections received by it from ~~Ratepayers~~Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from ~~Ratepayers~~Retail Consumers that pay their Electricity Invoices directly to ~~the Servicer.~~[23]IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall ~~[~~promptly~~]~~ segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(6) **IESO Remittances** – On each ~~[~~Settlement Date~~]~~[24][13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the ~~Regulatory Asset Owner~~Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

[10] Mirror collection "standard of care" under applicable legislation.
[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.
~~[23]~~[12] Consider building this obligation into a deemed condition of licence for the IESO.
~~[24]~~[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **~~Successors of~~ IESO Successor** – ~~Any successor of~~ IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province~~25~~14, then such person shall, if requested by the ~~Regulatory Asset Owners~~Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to ~~Ratepayers~~Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by ~~Ratepayers~~Retail Consumers as provided in this ~~Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d~~Act; (c) exercise all enforcement rights of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees for the benefit of ~~a Regulatory Asset Owner or Pledgee~~an Absolute Assignee; and (~~e~~d) remit any Transition Charge Collections to the ~~Regulatory Asset Owner or Pledgee~~Absolute Assignees or Pledgees, as applicable, each in accordance with its ~~Regulatory Asset~~Investment Interest.

(10) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners and any Pledgee~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative ~~Servicer~~Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from ~~Ratepayers~~Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure. ~~26~~

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the

~~25~~14 This is in anticipation of a possible future restructuring of the distribution system. ~~Also, this would cover any OREC-eligible customer (market participant) of IESO.~~

~~26 Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the ~~Regulatory Asset Owners~~Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any ~~Ratepayer~~Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~27~~15

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by ~~the Regulatory Asset Owners or Pledgee~~and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the ~~applying party~~Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees, each with respect to its ~~Regulatory Asset.~~ Investment Interest, and the Pledgees as applicable.[16]

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by ~~the Regulatory Asset Owner~~some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute ~~an existing, present~~a current and irrevocable property right and interest consisting, collectively, of the following rights and interests ~~of a Regulatory Asset Owner in the following~~ (without duplication):

~~27~~15 Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a ~~Ratepayer~~Retail Consumer reduces its payment of Transition Charges, despite this language~~, and same~~. Same for Electricity Distributor Remittances and IESO Remittances.

[16] Consider adding or substituting this provision for a right to appoint a receiver.

a. the right of ~~a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts~~IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from ~~Ratepayers~~Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this ~~Part~~Act;

c. the right to enforce the obligations and indebtedness of each ~~Ratepayer~~Retail Consumer to pay the Transition Charges charged to the ~~Ratepayer~~Retail Consumer from time to time in accordance with Article ~~2~~,3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article ~~4~~5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article ~~4~~5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Disposition that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Disposition by ~~a Regulatory Asset Owner~~IESO to an Absolute Assignee made under the Financing Plan ~~pursuant to a Disposition Document~~, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with ~~its~~the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the ~~Regulatory Asset~~applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof~~. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.]~~[28], and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

~~[28] Consider if helpful to investors, or delete.~~

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Pledge that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Pledge by ~~a Regulatory Asset Owner~~an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the ~~Regulatory Asset~~related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - ~~Any Pledge made by a~~For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset ~~Owner~~shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation ~~incurred under the Financing Plan shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset~~may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the ~~Regulatory Asset Owner~~Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected~~, without any physical delivery thereof, registration of any financing statement with respect thereto~~ pursuant to the ~~[~~PPSA~~]~~ ~~or any other further act.~~[29].[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may ~~subsequently~~ attach to the property rights and interests in the ~~Regulatory Asset~~Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. ~~Any~~Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. ~~[A Pledgee~~All provisions of the PPSA shall ~~cause a financing statement to be filed in respect of a Pledge on the basis that~~apply to the Regulatory Asset on the basis that it is ~~"~~intangible~~"~~ personal property, ~~for informational purposes only under the [PPSA].~~except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and

~~[29]~~[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's ~~right~~rights and ~~interest~~interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective ~~[~~and ~~joint]~~coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.[30]

Article 7 – Establishment of the Fair Allocation Plan[31][18]

(1) Adoption of the Fair Allocation Plan – The ~~[Minister of Energy]~~[32]Delegate may , [by written ~~order~~declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this ~~Part~~Act, ~~[~~except if amended, amended and restated or terminated by a further written ~~order issued~~declaration made by the ~~Minister of Energy~~Delegate in compliance with Section ~~•~~]7(4).

(2) Principles and Parameters[33] – A Fair Allocation Plan shall seek to allocate ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits across present and future ~~Ratepayer~~Retail Consumer Groups on a basis that the ~~Minister of Energy~~Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters[34]:

1. ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits should be allocated over ~~a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts~~the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods ~~(e.g., 6 month periods),~~ for the purpose of identifying applicable ~~Ratepayer~~Retail Consumer Groups and allocating ~~among them responsibility to bear the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits among them on a relative basis over time.

[30] ~~This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.~~

[31][18] The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current ~~Power Contracts~~procurement contracts and not invest in extending service lives to secure further ~~power~~procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

[32] ~~Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).~~

[33] ~~Consideration will be given as to whether these details should be included in the Regulation.~~

[34] ~~We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just illustrative to advance a discussion among the stakeholders.~~

3. The share of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits allocable to a particular ~~Ratepayer~~Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the ~~Ratepayer~~Retail Consumer Group over such Reference Period.

4. The ~~estimated Unrecovered~~share of Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated to a ~~Ratepayer~~Retail Consumer Group and any future ~~Ratepayer~~Retail Consumer Group at a particular time should not exceed the ~~estimated value of the Related Generating Assets based on their remaining useful lives or terms~~Estimated Future Green Transition Benefits, measured in respect of the ~~period~~Reference Periods following such particular time and to the Program End Date.

5. No future ~~Ratepayer~~Retail Consumer Group should ~~bear~~be allocated an unreasonably disproportionate share of ~~the Unrecovered~~Estimated Future Green Transition ~~Costs~~Benefits. Except in exceptional circumstances or in the case of any ~~backward-looking adjustment made~~reallocation of an Over-Assessed Amount as contemplated in 7, below, the ~~share of the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated under a Fair Allocation Plan to any future ~~Ratepayer~~Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*[35].

6. ~~A reasonable estimate of the rate of inflation~~The time value of money should be ~~applied~~reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal ~~amount of Unrecovered Transition Costs to be allocable to Ratepayer~~allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. ~~Backward-looking adjustments to a~~To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may ~~be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative.~~determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) Attribution Methodology – The Fair Allocation Plan ~~[~~shall~~]~~ specify ~~an objective methodology (~~the "~~Attribution Methodology~~")~~ for the purposes of allocating the Period

~~[35] Consider if a quantitative limit needs to be included in the legislation.~~

Transition Charges across ~~all of~~ the ~~Ratepayers~~Retail Consumers of a particular ~~Ratepayer~~Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that ~~are~~is considered by the ~~Minister of Energy~~Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) ~~**[Confirmation][Review] of the Fair Allocation Plan** – [OEB?][36]~~**Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The ~~Financing Plan~~[37]IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting

~~[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.~~

~~[37] Consideration will be given as to whether these details should be included in the Regulation.~~

market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare ~~and~~, Implement and Amend the Financing Plan** – ~~In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall~~The Financial Services Agent shall be authorized to prepare, implement and ~~propose~~amend the~~ adoption of a~~ Financing Plan. If the ~~Administrative~~Financial Services Agent is unwilling or unable to prepare and propose the adoption of ~~a~~the Financing Plan, the ~~Minister of Energy~~Delegate may by written ~~order~~declaration designate one or more other persons who shall be authorized to prepare ~~and~~, implement ~~such a~~and amend the Financing Plan.

(2) ~~**Required**~~ **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions ~~that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan~~. The Financing Plan shall ~~be consistent with~~have regard to the principles~~,~~ and parameters~~, requirements and conditions~~ set forth in Schedule 3 and such other conditions and requirements as may be specified in a written ~~order~~declaration of the ~~Minister of Energy [~~Delegate or in accordance with the Regulation~~]~~.

(3) ~~**Power to Review and Approve the Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the Financing Plan, and submit a revised Financing Plan to the designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]~~**OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) ~~**Approval of Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the Financing Plan based solely on whether the Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the Financing Plan, then such Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the Financing Plan or otherwise fails to approve the Financing Plan, then the Administrative Agent shall re-submit the Financing Plan with such amendments as the Administrative~~

Agent shall consider necessary for the Financing Plan to be approved by the OEB.[38] **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) **Consistency with the Fair Allocation Plan** – Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the Financing Plan shall require the Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(5) **(6) Establishment of Special Purpose Entities** – If the implementation of the Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]**Replacement of the Administrative Agent** – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) **(7) Obligation to Apply IESO Remittances** – The AdministrativeFinancial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset OwnersAbsolute Assignees, or otherwise in respect of or

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

as proceeds from ~~the Regulatory Asset~~an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.[39]

(7) ~~(8)~~ **Non-Recourse** – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, ~~and~~any Alternative Collection Agent, the ~~Administrative~~Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this ~~Part~~Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) ~~(9)~~ **Incurrences are Binding** – ~~Despite any failure to adhere to the Financing Plan or to comply with any requirement of this Part,~~Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of ~~a Regulatory Asset Owner~~an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this ~~Part~~Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article ~~9~~10 – Compliance Matters[40~~19~~]

(1) **Right of the [OEB] to Inspect Books and Records** - For the purpose of investigating compliance with the provisions of this ~~Part~~Act, the ~~[~~OEB~~]~~ shall have the right, jurisdiction, power and authority to examine the books and records of ~~any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation~~*~~[Insert names if any]~~*.

~~(2) **Power to Investigate Compliance and Impose Regulatory Sanctions** - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the [OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].~~

(2) ~~(3) [Other Rating~~**OPG's Rate Settings** – When setting other rates for or in respect of ~~any person who is or may become obligated or have duties that arise under this Part,~~

[39] ~~We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.~~

[40~~19~~] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article ~~is~~and any potential role for the Auditor General is still under consideration.

[41] ~~Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.~~

~~including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking~~OPG, the OEB shall not take into account (a) the ~~collection by or attribution to such person of~~ administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.~~]~~[42]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article ~~10~~11 – Undertaking of the Lieutenant Governor in Council[43][21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of ~~Ratepayers~~Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect. The amount of Transition Charges determined ~~hereunder~~under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) ~~**(2) Undertaking and Agreement** – The Lieutenant Governor in Council shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or,~~ except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the ~~Regulatory Asset Owners, including any~~ Absolute ~~Assignee from time to time, and~~Assignees or any Pledgee from time to time~~[~~,~~including through the introduction of any bill or the passing of any legislation or regulation~~]~~.;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination

[42] ~~OPG has indicated that the risks and cost consequences to OPG of being an~~[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent ~~or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for~~of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role. ~~To be discussed.]~~

[43] ~~Under consideration~~[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

(4) ~~[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners shall be fully~~**Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article ~~10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.~~[44]11.[22]~~]~~

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) ~~**(3)**~~ **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article ~~11~~12 – Regulations

Regulations may be made under this ~~Part~~Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with ~~a Regulatory Asset Owner~~an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding ~~Costs~~Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this ~~Part~~Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

[44][22] Requested by Torys. For discussion.

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this ~~Part~~Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by ~~a Regulatory Asset Owner~~an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article ~~12~~13- Miscellaneous[~~45~~23]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this ~~Part~~Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this ~~Part~~Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this ~~Part~~Act shall be required with respect to the actions to be taken in compliance with this ~~Part~~Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this ~~Part~~Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this ~~Part~~Act, if any provision of this ~~Part~~Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this ~~Part~~Act that is taken by any person who is or may become obligated or have duties that arise under this ~~Part~~Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this ~~Part~~Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this ~~Part~~Act are intended to be

[~~45~~23] OPG would like the specific amendments related to OPG to be included in the Bill.]

severable and that the Legislature would have enacted this ~~Part~~Act even if any Article, Section, paragraph or subparagraph of this ~~Part~~Act held to be unconstitutional or invalid had not been included in this ~~Part~~Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles, and Parameters, Requirements and Conditions for Establishing the Financing Plan

The Financing Plan shall have regard to the following principles, and parameters, requirements and conditions:[***Consider others.***] provide a guideline as to what a Financing Plan should address:

(1) the Financing Plan shall, in respect of each Reference Period, describemake reference to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of theIESO Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describeconsider alternative funding arrangements considered to be suitable for the purpose of fundingto fund the estimated IESO Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset Owners for such purpose;

(9) **(4)** such Funding Obligations shall reflectconsider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of eachfor a Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) the Financing Plan shall reflect the outcome of a financial model that incorporatesreflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical RatepayerRetail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the Financing Plan may permit the OEB to check progress against the model from***

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

~~***time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***~~]

(6) ~~the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to~~ incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the ~~Regulatory Asset Owners~~Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the ~~Administrative~~Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations ~~shall~~should not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the ~~Administrative~~Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the ~~Administrative~~Financial Services Agent shall cause the applicable ~~Regulatory Asset Owner~~Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the ~~Administrative~~Financial Services Agent will select counterparties under any transaction to be entered into by ~~a Regulatory Asset Owner~~an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note

trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the ~~Administrative~~Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the ~~Administrative~~Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding ~~Shortfall~~Shortfalls from time to time on a basis that is consistent with the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the ~~Administrative~~Financial Services Agent and other agents and service providers to the ~~Regulatory Asset Owners~~Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by ~~a Regulatory Asset Owner~~an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) ~~a description of each~~describe the requirements applicable to any special purchase entity that will purchase ~~the Regulatory Asset from the IESO~~an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities ~~having regard to the parameters in Schedule 4~~; and

(16) the basis on which any Pledge may be given or effected.

~~**Schedule 4**~~

~~**Creation of any Special Purpose Entity to become a Regulatory Asset Owner]**~~

~~**(1) Powers and Abilities**:~~

~~a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;~~

~~b. Each Regulatory Asset Owner shall be authorized to:~~

~~i. incur the Funding Obligations contemplated by a Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;~~

~~ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a Financing Plan and for administrative services; and~~

~~iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;~~

~~c. So long as any Funding Obligations contemplated under a Financing Plan are outstanding, a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;~~

~~d. a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a Financing Plan;~~

~~e. a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a Financing Plan; and~~

~~f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a Financing Plan.~~

~~**(2) Governance of Regulatory Asset Owner –** A Regulatory Asset Owner shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]~~

~~a. [Number of trustees]~~

~~b. [Replacement of trustees; vacancies; appointment of successors]~~

~~c. [Removal of trustees for neglect of duty or misconduct]~~

~~d. [Quorum and meetings]~~

~~e. [Fiduciary duty]~~

~~f. [Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]~~

~~g. [Delegation of powers and duties to administrative agents]~~

~~h. [Delegation of powers and duties to administrative agents]~~

(17)

Document comparison by Workshare Compare on Monday, April 10, 2017 11:00:11 PM

Input:	
Document 1 ID	PowerDocs://TOR_2528/23107566/8
Description	TOR_2528-#23107566-v8-"Fair_Hydro_Act"
Document 2 ID	PowerDocs://TOR_2528/23107566/9
Description	TOR_2528-#23107566-v9-"Fair_Hydro_Act"
Rendering set	Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	596
Deletions	610
Moved from	25
Moved to	25
Style change	0
Format changed	0
Total changes	1256

From: Gavin He
To: John Kim; Bruno Amara
Cc: Ronald Kwan
Subject: FW: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Wednesday, April 12, 2017 12:33:35 PM
Attachments: Blackline_Summary.pdf
Fair_Hydro_Act Torys_Osler Mark-up April 11 2017 Draft (Torys-Oslers_Apr....docx
Importance: High

Hi John/Bruno,

FYI.

Regards,
Gavin He

-----Original Message-----
From: Mansoori, Nina [mailto:nmansoori@torys.com]
Sent: Wednesday, April 12, 2017 12:16 PM
To: WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; James Rehob (ENERGY) <James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com>; Dan Shear (ENERGY) <Dan.Shear@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Michael.Boll@ieso.ca; Feldman, Michael <mfeldman@torys.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; GZacher@stikeman.com; Tim Christie (ENERGY) <Tim.Christie@ontario.ca>; Paul Johnson (ENERGY) <Paul.Johnson3@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Hilary Cox (ENE) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>; 'Smith, Elliot' <ESmith@osler.com>; ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Importance: High

All - please find attached a revised draft of the summary legislation circulated by Blakes on April 10 which reflects consolidated comments from OPG and the dealers (and their respective counsel). Please note that the attached remains subject to the continuing review of OPG and the dealers. We will have printed copies of the blackline available at today's meeting.

Best Regards,

Nina

Nina Mansoori

P. 416.865.7332 | F. 416.865.7380 | 1.800.505.8679

Torys LLP

79 Wellington St. W., 30th Floor, Box 270, TD South Tower

Toronto, Ontario M5K 1N2 Canada | www.torys.com

-----Original Message-----

From: Smith, Elliot [mailto:ESmith@osler.com]

Sent: April-12-17 12:39 AM

To: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Steve,

We have been corresponding with Torys today and are in the process of preparing a consolidated mark-up reflecting comments from the Dealers and OPG, which will also incorporate some of the comments received this evening from the IESO/Stikemans. We will circulate the consolidated mark-up before tomorrow's meeting.

Elliot

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

-----Original Message-----

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Tuesday, April 11, 2017 1:54 PM

To: Smith, Elliot <ESmith@osler.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: Re: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Elliot, in the interest of time, it may make sense for me to walk you through where your items have been addressed. Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086<tel:416-863-3086>

On Apr 11, 2017, at 1:19 PM, Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>> wrote:

Stephen,

This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot

<image002.gif>

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com<mailto:esmith@osler.com>

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

<image003.gif><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.osler.com_&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=LUQKnMzzRUkkrKYgR-TY27HXaVqG9jmUSR9Xzz7GIBM&e= >

<image004.jpg>

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Monday, April 10, 2017 11:16 PM

To: Feldman, Michael <mfeldman@torys.com<mailto:mfeldman@torys.com>>; JACKSON, ADAM <ADAM.JACKSON@blakes.com<mailto:ADAM.JACKSON@blakes.com>>; Peter Hamilton (PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>) <PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>>; LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>; WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>; WILSON, JUDY <JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; Hill, Krista <khill@torys.com<mailto:khill@torys.com>>; Ramchandani, Rima <rramchandani@torys.com<mailto:rramchandani@torys.com>>; Keizer, Charles <ckeizer@torys.com<mailto:ckeizer@torys.com>>; Myers, Jonathan <jmyers@torys.com<mailto:jmyers@torys.com>>; Emes, Aaron <aemes@torys.com<mailto:aemes@torys.com>>; Mansoori, Nina <nmansoori@torys.com<mailto:nmansoori@torys.com>>; Wortsman, Jerald <jwortsman@torys.com<mailto:jwortsman@torys.com>>; Bomhof, Scott <sbomhof@torys.com<mailto:sbomhof@torys.com>>; Estey, Bill <bestey@torys.com<mailto:bestey@torys.com>>; Watson, Gwen <gwatson@torys.com<mailto:gwatson@torys.com>>; James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>; O'Brian, Adam <aobrian@hunton.com<mailto:aobrian@hunton.com>>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com<mailto:MFitzpatrick@hunton.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; VINER, JON <JON.VINER@blakes.com<mailto:JON.VINER@blakes.com>>; Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>>; Sebastiano, Rocco <RSebastiano@osler.com<mailto:RSebastiano@osler.com>>; Michael.Boll@ieso.ca<mailto:Michael.Boll@ieso.ca>; GZacher@stikeman.com<mailto:GZacher@stikeman.com>; aobrian@hunton.com<mailto:aobrian@hunton.com>; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca<mailto:Tim.Christie@ontario.ca>>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca<mailto:Paul.Johnson3@ontario.ca>>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Rehob, James (ENERGY) <James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>; 'Gavin He' <Gavin.He@ofina.on.ca<mailto:Gavin.He@ofina.on.ca>>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca<mailto:Cindy.Veinot@ontario.ca>>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca<mailto:Sarah.Hosick@ontario.ca>>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; kim.marshall@ieso.ca<mailto:kim.marshall@ieso.ca>; 'LEE John -TREASURY' (john.s.lee@opg.com<mailto:john.s.lee@opg.com>) <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca<mailto:Hilary.Cox@ontario.ca>>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>>; Wolff, Michael <Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>>; Holloway, Harold <Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>>; Akman, Steven <Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>>; Manii, David <david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>>; Nevison, Gary <Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086

_____

<image001.gif>

Blake, Cassels & Graydon LLP

199 Bay Street, Suite 4000, Toronto ON M5L 1A9

Tel: 416-863-2400 Fax: 416-863-2653

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Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act"

Article 1 – Purpose

The Province has and continues to encourage the construction and development of facilities for the long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer, feed in tariff and other similar programs (the "Green Generation Initiative"). The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will **continue to** benefit present and future electricity consumers in the Province.

The ~~imputed~~**out-of-market** costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). ~~The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.~~

The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province under the Green Generation Initiative~~, which may be higher than prevailing market price for electricity. These differences~~**. These amounts paid by the IESO** arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with ~~long-term price~~**revenue** certainty ~~for electricity~~, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. ~~In general, whenever amounts payable under these procurement contracts exceed the market price for electricity, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the~~ **[NTD: This statement is not correct in respect of all IESO procurement contracts.]** It has been determined that the useful lives of many of the assets ~~encouraged by~~**developed under** the Green Generation Initiative will be ~~well~~ in excess of the respective terms of ~~the related~~**their respective** procurement contracts~~, and in many cases may extend over more than one generation of electricity consumers~~.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective ~~durations~~**terms** of the **applicable** procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to ~~Retail~~**Regulated** Consumers (as defined in Article 2) should be more closely aligned with the benefits that such ~~Retail~~**Regulated** Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on **general** principles and parameters that establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative equitably across present and future ~~Retail~~**Regulated** Consumers (the "Fair Allocation

Plan"). **[NTD: There is no explanation as to why realignment is limited to Regulated Consumers.]**

If the Fair Allocation Plan determines that the equitable allocation of the costs associated with the Green Generation Initiative to the ~~Retail~~**Regulated** Consumers of a particular time period should be reduced below the amount that currently would be charged based on the Green Costs Adjustment, then the amount payable by such ~~Retail~~**Regulated** Consumers and in turn available to IESO will, in the aggregate, be less than the amount payable by the IESO to the generators in respect of such period. In this case**,** IESO will need to obtain funding from another source to cover such a shortfall. If a funding obligation is incurred ~~by IESO~~ to cover such a shortfall during ~~one~~**any** period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs incurred will become payable in ~~one or more~~ future periods. In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding amounts when they become due and payable, this Act imposes irrevocable and non-bypassable financial obligations on ~~Retail~~**Regulated** Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts. The right and interest in and to collect such financial obligations will take the form of the Regulatory Asset contemplated in this Act, which will constitute property rights and interests. Interests in the Regulatory Asset may be sold and absolutely assigned by IESO to one or more financing entities, which in turn will finance their acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf **of** such financing entities by a financial services ~~agent~~**manager** under the Financing Plan contemplated in this Act. ~~The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations, to be borne by the future Retail Consumers of the period in which such payment obligations become due, with the benefits of the Green Generation Initiative allocated to such future Retail Consumers under the Fair Allocation Plan.~~

[NTD: Our strong preference is to limit the introduction to the next paragraph and move defined terms from the previous paragraphs to Article 2]

The purpose of this Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future ~~Retail~~**Regulated** Consumers on an equitable and cost effective basis.

Article 2 ~~-~~ – Definitions

In this Act: **[NTD: It would be preferable to use plain language definitions in the legislation and leave the more detailed definitions to either the regulations or the agreements contemplated hereunder.]**

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition **other than as security**.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Financial Services ~~Agent~~**Manager**

whose records shall be determinative for the purposes of this Act except to the extent of a manifest calculation error.

"Additional Funding Charges" means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Financial Services Agent on behalf of, the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on the Absolute Assignee or incurred by on behalf of the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith by the Financial Services Agent for recovery and payment under the Financing Plan**without limitation such amounts as may be prescribed**.

"Allocation Factor" means, in respect of a Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the Retail Consumer by the OEB based on the application of< *the Attribution Methodology* >in respect of the Reference Period.[1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners. **[NTD: See section 5(11). Remove this concept globally.]**

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners. **[NTD: We see this, in effect, as the same thing as the IESO Successor; that is, replacement of the master Servicer.]**

[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those may be identified and caught by the True-Up.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"~~2~~[1] means the methodology specified in the Fair Allocation Plan for allocating the Period ~~Transition~~**Finance** Charges for a Reference Period to ~~individual Retail Consumers of the applicable Retail Consumer Group based on its Allocation Factor.~~**Regulated Consumers. [NTD: We understood that the Ministry accepted that the transition charge would be a volumetric rate.][NTD: Can be moved to Regulations.]**

"Collected Amount Adjustment" means, in respect of a True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the Financial Services ~~Agent~~**Manager**, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.~~3~~[2]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee)~~ and~~**,** each Pledgee**, and the Financial Services Manager** that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.~~4~~ **[NTD: Move to Regulations.]**

"Delegate" means **any of** the **following** person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act~~.~~**: ●. [NTD: Why is this delegation of authority necessary? This requires further discussion and clarity as to which entity or entities that the Province can select as the Delegate; for example, it would not be acceptable for the Province to select the OEB to be the Delegate. If this is required, an acceptable delegate would be a stakeholder committee comprised of representatives from the Ministry of Energy, the OEB, the IESO, and OPG. In addition, the regulation should prescribe how the stakeholder committee would operate.]**

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of **(a) IESO's right to recover all or any portion of an IESO Funding Shortfall or (b)** an Investment Interest to an Absolute Assignee**, in each case** pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which ~~a Regulatory Asset Owner~~**IESO or an Absolute Assignee** effects a Disposition to an Absolute Assignee.

~~2~~[1] This allocation may be volumetric or some combination of a flat amount and a volumetric charge. Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

~~3~~[2] This would pick up adjustments based on actual collection experience, changes in the ~~retail consumer~~**Regulated Consumer** base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

~~4 Consider adding the Financial Services Agent and the Servicer as parties.~~

"Electricity Distributor" means~~, in respect of a Service Area, the~~ **a** rate regulated distributor licensed under Part V of the *Ontario Energy Board Act,* ~~*1998* in respect of such Service Area,~~***1998,*** together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received **[NTD: estimated to be received? will each Electricity Distributor know?]** by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to ~~IESO~~**Servicer** or if applicable the Alternative Collection Agent in accordance with Section 5(3), including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by ~~any of a~~**an** Electricity Distributor (or in its stead, by an Alternative ~~Servicer~~**Collection Agent**), by the Servicer or by a Retailer, in each case to a ~~Retail~~**Regulated** Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to ~~a distribution network in the~~**such** Electricity Distributor's ~~designated Service Area~~**distribution system** and in respect of applicable Transition Charges to be charged to the ~~Retail~~**Regulated** Consumer under this Act. **[NTD: The Alternative Servicer should only invoice for Transition Charges, not the entire invoice. Also, to avoid confusion, we suggest using the word "invoice" in reference to what the IESO sends out to distributors, and "bills" in reference to what distributors send out to consumers.]**

"Estimate" means (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Financial Services ~~Agent~~**Manager**; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to ~~any Retail Consumer Group~~**Regulated Consumers**, the estimated value (in current dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Act except to the extent of a manifest calculation error.

"Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to ~~Retail~~**Regulated** Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to ~~Retail~~**Regulated** Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, for a Reference Period ~~in respect of an Absolute Assignee~~, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of ~~the~~**all** Absolute ~~Assignee~~**Assignees**: (a) Repayments; (b) **Net** Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals. **[NTD: Move this to regulation.]**

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan. **[NTD: Move this to regulation.]**

"Financial Services ~~Agent~~**Manager**" means OPG or, following any Replacement Event **involving OPG**, such other person ~~or persons~~ who may be appointed as the ~~Financial Services Agent~~**financial services manager** of the Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]~~3~~

"Financing Entity" means ~~an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition under the Financing Plan.~~[6]**any entity established at the initiative of and managed by the Financial Services Manager to support the Financing Plan.**[4]

"Financing Plan" means the written plan prepared by the Financial Services ~~Agent on behalf of each Absolute Assignee in compliance with Article 9 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred by an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (j) the cash flows arising from time to time or otherwise derived from an Investment Interest may otherwise be applied,~~**Manager in accordance with Article 9,** as the same may be amended, amended and restated or terminated by the

[5] ~~Discuss whether to accommodate multiple~~[3] **There must only be one** Financial Services ~~Agents. MOE to consider~~**Manager**.

[6]4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Financial Services ~~Agent~~**Manager** in ~~compliance~~**accordance** with Article 9 from time to time.

~~"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest~~<~~ *and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including* >~~any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to its Funding Obligations, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.~~

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including**, without limitation,** each obligation to pay: principal, interest, premiums and other financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services ~~Agents~~**Managers**, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges**)** incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

~~"Generator" means a generator of electricity that is subject to the *Electricity Act, 1998*.~~

"Global Adjustment" has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" has the meaning given in Article 1.

"IESO" means the Independent Electricity System Operator created pursuant to Part II of the *Electricity Act, 1998*.

~~"IESO Available Amount" means, for a Reference Period, the lesser of (a) the amount (if any) by which (i) the Maximum Transition Charge Amount for the Reference Period, exceeds (ii) Period Finance Amount for the Reference Period, and (b) the IESO Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.~~

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO **,** during the month pursuant to section • of the *Electricity Act*~~.~~ **in respect of Regulated Consumers. [NTD: IESO indicates that it likely does not work to express in regards to "amounts payable by the LDCs" because settlement between the IESO and LDCs entails payments by LDCs to the IESO and then credits/debits by the IESO to LDCs to reflect RPP shortfalls/overages.]**

~~"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.~~

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[~~7~~**5**]~~; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.~~ **.To the extent reasonably necessary to give effect to this Act, or any transaction contemplated hereby, IESO shall calculate the IESO Funding Shortfall for any month taking into account information provided by the Electricity Distributors and (i) such calculation shall be binding for all purposes; and (ii) any demonstrated inaccuracy in the calculation for any month (including any such resulting from inaccuracies in the information provided by Electricity Distributors) shall be accounted for by adjusting the IESO Funding Shortfall for a subsequent month. [NTD: Need to add the mechanism for IESO to record this shortfall because without that there is no Regulatory Asset. This IESO Funding Shortfall is the regulatory asset owned by IESO.]**

~~"IESO Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.~~

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative

[~~7~~**5**] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

~~"IESO Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.~~

~~"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.~~

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition~~, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document~~.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the ~~Finance Amounts~~**Funding Obligations** due and payable by all Absolute Assignees in respect of the month.

~~"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.~~

~~"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.~~

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"Net Funding Costs" means, for a Reference Period in respect of a Financing Entity, the amount by which (a) the aggregate of all interest, scheduled principal> *and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including* <**such amounts as may be prescribed, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of the Funding Obligations referred to in (a), including such amounts as may be prescribed.**

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount ~~and~~ (b) the True-Up Amount in respect of the ~~immediately preceding Reference Period. "Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.~~ **applicable True-Up Period and (c) an adjustment amount as may be prescribed to account for estimated collection shortfalls and collection delays in respect of amounts under (a) and (b).**

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Investment Interest.

"Pledgee" means a person to whom an Absolute Assignee grants a Pledge.

"Program End Date" means •, [2047].

"Province" means the Province of Ontario.

"Redemption Amount" means the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the Measurement Date to (and including) ~~June~~**October** 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

~~"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.~~

"Refinancing" means, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of the Absolute Assignee by applying the net proceeds obtained by the Absolute Assignee incurring one or more other Funding Obligations.

"Regulated Consumer" means consumers of electricity in the Province as prescribed.

[NTD: There are a number of issues with this definition. First, the word "Retail" is a source of confusion as it implies customers of licensed retailers. Really, the purpose of the term is to define the group of consumers that are eligible to receive the benefit of the Fair Hydro program and who will bear the cost of the program over the long term. We have proposed "Regulated Consumer" but you could also use the term "Eligible Consumer" or "Fair Hydro Eligible Consumer" and for purposes of the legislation to say that it is a member of a class of consumers prescribed by the regulations for purposes of the relevant section of the legislation. The regulation would then describe who is in the class. Second, it may not be appropriate to rely on the class of consumers prescribed for the purposes of s. 79.16 or under the OREC Act. Section 79.16 is the section that defines the class of RPP consumers. We understand that the "Fair Hydro Eligible Consumers" are not an identical class to that which is eligible for the RPP or for> *the Ontario Rebate for Electricity Consumers*<. For example, we have heard that Fair Hydro Eligible Consumers will (a) exclude consumers served by independent power authorities (certain remote communities not served by Hydro One Remotes), and (b) include consumers served by licensed unit sub-metering providers, licensed retailers and certain consumers served directly by the IESO (which may or may not be captured by the classes under 79.16 or OREC). Third, it is not clear why consumers with contracts with retailers who use retailer consolidated billing are removed from the first part of the definition but then added back into the second part of the definition. Fourth, Retailers do not necessarily have physical electricity assets that would be connected to the grid. Some just sell or offer contracts for electricity. As such, the first few lines after (b) are problematic. Fifth, the phrase "purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets" does not make sense. A consumer does not purchase generation services from a transmitter or distributor. Rather, a consumer receives distribution services from a distributor. In addition to charging for its distribution services, the distributor also charges the associated transmission costs and commodity costs associated with the volumes delivered. Those commodity costs are the price of the electricity itself and are almost entirely made up of the amounts determined under the global adjustment. Sixth, the phrase "> *whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO*<" does not make sense. Transmission assets are owned and operated by transmitters. Distribution assets are owned and operated by distributors. The IESO does not own but does administer and direct the operation of the transmission system.]

"Regulatory Asset" means the property rights and interests described in Section 6(1), which collectively is comprised of ~~the IESO Retained Interest and~~ each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; and (b) for the Servicer, any bank account into which ~~IESO~~Servicer deposits or receives Transition Charges~~, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which~~

~~the Alternative Collection Agent deposits or receives Transition Charge Collections~~, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means~~ each of (a) IESO, as owner of (and to the extent of) the IESO Retained Interest and (b)~~ each Absolute Assignee, as owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively~~ IESO and~~ each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7).

"Related Rights" means**, with respect to a Regulatory Asset Owner's Investment Interest,** all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such ~~Regulatory Asset~~**Investment Interest**.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to ~~IESO~~**Servicer** or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in accordance with any Funding Obligation, then the Business Day **[NTD: Not defined.]** preceding each Settlement Date. **[NTD: Move to Regulations. Remittances will be in accordance with the current rules.]**

"Repayment Obligation" means an obligation to repay~~, redeem or repurchase,~~ or to provide for the repayment~~, redemption or repurchase~~ (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

~~"Retail Consumer" means:~~

~~(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under< *the Ontario Rebate for Electricity Consumers*> *Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and~~

~~(b) present and future Retailers who use Retailer Consolidated Billing,~~

~~and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution~~

system assets and <*whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO*>.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with the *Electricity Act, 1998*.

"Servicer" means IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Retail**the amount recoverable from a Regulated** Consumer in respect of a Reference Period, (a) the Period Transition Charge, (b) multiplied by its Allocation Factor in respect of the Reference Period, divided by (c) the applicable Reference Period Length. **being the Period Finance Charge as allocated to such Regulated Consumer in accordance with Article 4(3) on a monthly basis. [NTD: This needs to be grossed up to account for variability associated with expected uncollectables and remittance delays.] [NTD: Do not need to create parallel process. The definition should be linked to the OEB process for determining the volumetric rate as part of the RPP process (see s. 4(2)). The OEB will determine volumetric rate based on forecast consumption, number of consumers, etc. to recover the Period Finance Charges.]**

"Transition Charge Collection" means any amount received **[or deemed by this Act to have been received] by the Absolute Assignees** upon the collection of a Transition Charge paid by or on behalf of a Retail**Regulated** Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Financial Services Agent**Manager** equal to (a) the >*Actual Finance Amount for such related True-Up Period*<**, minus (b) the** Estimate of the Finance Amount for the related True-Up Period, minus (b) the <*Actual Finance Amount for such related True-Up Period*>, plus (c) the Collected Amount Adjustment for such related True-Up Period. **[NTD: need to discuss how this will work for our true-up. What about prior period shortages? An example of how this works needs to be provided.]**

"True-Up Period" means, in relation to a Reference Period, the~~ period from and including the [30th] day~~ immediately preceding~~ the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the~~ Reference Period.

"Undertaking of ~~the Lieutenant Governor in Council~~**Her Majesty in right of Ontario**" means the undertaking of ~~the Lieutenant Governor in Council~~**Her Majesty in right of Ontario** given under Section 11(2).

Article 3 – Transition Charges

(1) ~~Retail~~**Regulated** **Consumer Obligation to Pay a Transition Charge** – Each ~~Retail~~**Regulated** Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such ~~Retail~~**Regulated** Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of ~~Retail~~Regulated Consumers** – Until paid, a Transition Charge charged to a ~~Retail~~**Regulated** Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the ~~Retail~~**Regulated** Consumer to the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset. Such indebtedness shall constitute a single and separate[~~8~~6] debt obligation owing by the ~~Retail~~**Regulated** Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the ~~Retail~~**Regulated** Consumer under the Electricity Invoice or otherwise.[~~9~~7]

(3) **No Set-Off or Reduction** – A ~~Retail~~**Regulated** Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such ~~Retail~~**Regulated** Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of ~~Retail~~Regulated Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a ~~Retail~~**Regulated** Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be ~~allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection~~**subject to rights and benefits that are no less favourable than the treatment accorded to other amounts payable to the IESO by the Electricity Distributor**.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations~~ incurred under the Financing Plan~~ (including any

[~~8~~6] Determine if this is critical for rating and markets. Logistics under consideration.

[~~9~~7] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consider if it is helpful to integrate the existing regulatory scheme for invoicing and collections (regarding RPP) in the legislation.

adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 9(3)) are deemed to be irrevocable, final and effective without any further action, except to the extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period **regardless of** whether ~~or not~~ the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, **and regardless of** whether ~~or not~~ the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) True-Up of Transition Charges? – [NTD: Include specifics regarding the true-up of the charges and the process for the true-up, but move to Regulations. The True-Up Mechanism should require the Transition Charges to be reviewed and adjusted semi-annually to ensure the expected recovery of amounts sufficient to timely provide all payments in respect of Funding Obligations, provided that in some cases it may need to be adjusted more frequently than semi-annually, e.g., as part of a refinancing.]

(7) Commencement of Invoicing and Collection of Transition Charges – [NTD: Please confirm that as drafted, Transition Charges will begin on the Measurement Date.]

Article 4 – Invoicing of Transition Charges [NTD: Move Article 4 sections (1) to (4) to Regulations. Also note, these sections remain subject to further due diligence by the Dealers.]

(1) Inclusion of Transition Charges in Electricity Invoices – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a ~~Retail~~**Regulated** Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the ~~Retail~~**Regulated** Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable ~~Retail Consumer.~~**Regulated Consumer. [NTD: Must capture bills issued to eligible consumers served by unit sub-metering providers, retailers and the IESO – not just distributors][NTD: This provision also needs to address the inclusion of Transition Charges in invoices from the IESO to the LDC, consistent with the current process of how the IESO bills LDCs.]**

(2) Calculation of the Period ~~Transition~~Finance Charge – Not later than [35] days prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services ~~Agent~~**Manager** on its behalf) shall provide the OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. ~~[35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day.~~ Not later than one month prior to the first day of a Reference Period, ~~the OEB~~**each Absolute Assignee (or the Financial Services Manager on its behalf)** shall calculate the Period ~~Transition~~**Finance** Charge applicable to the Reference Period ~~based on the calculations and information set forth in such written notices received from the Absolute Assignees~~

~~and based on~~**having regard to** such amounts specified by ~~IESO or Successor IESO~~**the Servicer**, which calculations, information and amounts shall be **accepted by the OEB and shall be** determinative, except to the extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the ~~Allocation Factor~~**allocation of the Transition Charge** for each ~~Retail~~**Regulated** Consumer ~~of the applicable Retail Consumer Group~~. **[NTD: We think the OEB would be determining the Fair Hydro recovery rate (on a volumetric basis) that distributors would then be required to charge to consumers]**

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each ~~Retail~~**Regulated** Consumer ~~of the applicable Retail Consumer Group who has a billing address in~~**who is served by** the Electricity Distributor~~'s Service Area~~.

(5) **Adjustments** – The amount of any Transition Charge charged to a ~~Retail~~**Regulated** Consumer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, except to the extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners. **[NTD: We would expect the IESO to manage this in accordance with its normal business practices.]**

(9) Absolute Assignees have Standing – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to ~~Retail~~**Regulated** Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges **or to otherwise comply with this Act**. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure~~.~~ **and may make any interim or final order it thinks fit in this regard. [NTD: We would like to see the sections on "Standing" to bring an action to remain in the legislation (as opposed to being moved to the regulations as we believe we previously suggested) as we see those provisions as part of ensuring a rigorous enforcement scheme for the Financing Entity (and so something that should be difficult for the Province to change going forward).]**

(10) No Set-Off or Reduction – No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Servicer to ensure that Transition Charges are properly charged to ~~Retail~~**Regulated** Consumers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances [NTD: Move Article 5 sections (3), (6), (9), (12), (13) and (14) to Regulations.]

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the ~~Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts to~~**Servicer,** collect amounts owing by ~~Retail~~**Regulated** Consumers in respect of Transition Charges charged to such ~~Retail~~**Regulated** Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent~~.~~ **all in accordance with the Regulations. [NTD: The obligation to collect and remit the Transition Charge should be included as a deemed condition of license for electricity distributors (and retailers and unit sub-metering providers).]**

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from ~~Retail~~**Regulated** Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.~~[11]~~[8] **[NTD: Determine if this is critical for rating and markets or if segregation can occur in the hands of the IESO]** Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners **or its Pledgee**.

(3) **Electricity Distributor Remittances** – On each applicable Remittance Date, an Electricity Distributor shall remit all **amounts invoiced by the IESO on account of the**

~~[10] Mirror collection "standard of care" under applicable legislation.~~

~~[11]~~[8] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.

Transition Charge ~~Collections received by it from Retail Consumers~~ in respect of the related Reference Period to or to the account of ~~IESO~~**Servicer** or if applicable the Alternative Collection Agent. **[NTD: It is the Dealers expectation that the Transition Charge will be paid on the same basis as other amounts invoiced by the IESO, failing which, they will need to be remitted daily.]**

(4) **Duty to Collect Electricity Distributor Remittances** – ~~IESO~~**Servicer** or if applicable any Alternative ~~Collection Agent~~**Servicer** shall, as an agent of the Regulatory Asset Owners, ~~undertake [diligent][reasonable] efforts to~~ accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from ~~Retail~~**Regulated** Consumers that pay their Electricity Invoices directly to IESO~~.~~[12] **on the same basis as it accepts and collects other charges from such Regulated Consumers.**[9]

(5) **Segregation of Electricity Distributor Remittances** – ~~IESO~~**Servicer** and if applicable the Alternative Collection Agent shall promptly segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, ~~IESO~~**Servicer** or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners **or Pledgee**.

(6) ~~**IESO**~~**Servicer Remittances** – On each Settlement Date[13][10], ~~IESO and if applicable the Alternative Collection Agent~~**Servicer** shall remit all amounts on deposit in its Regulatory Asset Account ~~(a) first,~~ to or to the account of the Absolute Assignees an amount equal to the Investment Remittance for the related month~~ and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date~~.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **IESO** ~~**Successor**~~**Successors** – IESO ~~Successor~~**Successors** shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[14][11], then such person shall, if requested by the Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to ~~Retail~~**Regulated** Consumers~~ in its~~

[12]9 Consider building this obligation into a deemed condition of licence for the IESO.
[13]10 Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.
[14]11 This is in anticipation of a possible future restructuring of the distribution system.

applicable service area, including all consumers connected to the electricity**such person's** distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Retail**Regulated** Consumers as provided in this Act; (c) exercise all enforcement rights of the Absolute Assignees for the benefit of an Absolute Assignee; and (d) remit any Transition Charge Collections to the Absolute Assignees or Pledgees, as applicable, each in accordance with its Investment Interest. **[NTD: Such acquisition of a distribution system would require the person to be an electricity distributor; consider deleting since this is covered off by Section 5(7).]**

(10) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO**Servicer**, the Alternative Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Retail**Regulated** Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5.**5, or to otherwise comply with this Act.** Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure **and may make any interim or final order it thinks fit in this regard**.

(11) **Appointment of an Alternative Collection Agent –** If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Absolute Assignees.**Not Used. [NTD: The Servicer should manage this process.]**

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Retail**Regulated** Consumer, any Electricity Distributor, IESO**Servicer**, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor,

~~IESO~~**Servicer**, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~15~~12

(13) **Sequestration** – If any Electricity Distributor, ~~IESO~~**Servicer**, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Absolute Assignees, each with respect to its Investment Interest, and the Pledgees as applicable.~~16~~13

[NTD: Suggest considering a more typical remedy such as the ability to appoint a receiver. Concept should be moved to Regulations.]

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to ~~IESO~~**Servicer**, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

[NTD: We believe that the statute should impose a time limit on the ability of IESO to create additional Regulatory Assets under this Act. It is our expectation that this will be no later than 10 years after the commencement of the program.]

[NTD: In addition, additional language is required to address the acquisition of the Regulatory Asset by the Financing Entity, including reference to the consideration being provided for it, funding upfront costs.]

[NTD: The sale of Regulatory Assets must be restricted to Financing Entities controlled by a single entity (initially, OPG).]

[NTD: For greater certainty, a Financing Entity will not be required to purchase Regulatory Assets from IESO.]

(1) **Composition** – The Regulatory Asset shall constitute a current and irrevocable property right and interest consisting, collectively, of the following rights and interests (without duplication):

~~15~~12 Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a ~~Retail~~**Regulated** Consumer reduces its payment of Transition Charges, despite this language. Same for Electricity Distributor Remittances and IESO Remittances.

~~16~~13 Consider adding or substituting this provision for a right to appoint a receiver.

a. the right of ~~IESO (i)~~**a Regulatory Asset Owner** to record its ~~IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b)~~**portion of the Regulatory Asset in its accounts**;

b. the right to impose, bill, invoice, collect and receive Transition Charges from ~~Retail~~**Regulated** Consumers, including the right to determine the amount of Transition Charges in accordance with this Act;

c. the right to enforce the obligations and indebtedness of each ~~Retail~~**Regulated** Consumer to pay the Transition Charges charged to the ~~Retail~~**Regulated** Consumer from time to time in accordance with Article 3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices; **[NTD: Do we really want and need the ability for the Financing Entities to chase after individual consumers?] [NTD: This should be the right to provide notices to the OEB of the amounts required for recovery, which the OEB would then be required to accept for purposes of determining the amount of Transition Charges to be charged to consumers]**

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of ~~IESO~~**Servicer** or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5;

f. the right to enforce the duties and obligations of ~~IESO~~**Servicer** and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred. **The Regulatory Asset shall continue to exist until all Funding Obligations and Additional Funding Charges have been paid in full.**

(2) **Validity of Dispositions** – ~~Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Disposition that may arise by operation of any applicable law of the Province, a~~**A** Disposition by IESO **of all or any part of the IESO Funding Shortfall** to an Absolute Assignee~~ made under the Financing Plan~~, or **a Disposition of all or any part of an Investment Interest** by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the ~~applicable~~**IESO Funding Shortfall or** Investment Interest**, as applicable** (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the ~~Regulatory Asset Owner's applicable~~**IESO Funding Shortfall or an Absolute Assignee's** right, title~~,~~ and interest in, to and under ~~the Regulatory Asset~~**an Investment Interest, as applicable** (or relevant portion thereof), and not merely as a Pledge thereof, and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the **IESO Funding Shortfall or** Investment Interest **(or relevant portion thereof)** subject to the Disposition, including all rights under the **IESO Funding Shortfall or** Investment Interest arising after such Disposition. **[NTD: Subject to review by Osler/dealers.]**

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the **IESO or** transferring Regulatory Asset Owner**, as applicable,** and all other persons who have claims of any kind (whether in tort, contract or otherwise) against **IESO or** the transferring Regulatory Asset Owner, **as the case may be,** irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – ~~Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province or any consent~~

~~requirement applicable to a Pledge that may arise by operation of any applicable law of the Province, a~~**A** Pledge by an Absolute Assignee may be made to secure any ~~related~~ Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the related Investment Interest in accordance with the terms of the Pledge. ~~Other than as required by the Financing Plan, no~~**No** consent of**, or notice to,** any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation **shall, subject to the terms thereof, give rise to a security interest of which the PPSA applies, and** may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected pursuant to the PPSA.~~17~~**14** A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may attach to the property rights and interests in the Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. ~~Subject to the terms of the Collective Action Agreement, a~~**A** Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. All provisions of the PPSA shall apply to the Regulatory Asset on the basis that it is intangible personal property, except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document~~, in each case under the Financing Plan~~. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's rights and interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective and coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement. **[NTD: Move to Regulations.]**

~~17~~**14** Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

Article 7 – Establishment of the Fair Allocation Plan~~18~~15 **[NTD: Move entire Article 7 to Regulations, other than 7(1) and 7(2).]**

(1) **Adoption of the Fair Allocation Plan** – The Delegate may, ~~[~~by written declaration,~~]~~ designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Act, except if amended, amended and restated or terminated by a further written declaration made by the Delegate in compliance with ~~Section 7(4).~~**[the Regulations]**

(2) **Principles and Parameters** – A Fair Allocation Plan shall seek to allocate Future Fair Share of Green Transition Benefits across present and future ~~Retail Consumer Groups~~**Regulated Consumers** on a basis that the Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters:

[NTD: E&Y will need to see the guidelines of the Fair Allocation Plan set in reference to parameters that will allow it to establish a modeling curve]

- **[Inflation period: (between November 2017 – and April 2022) bill increases need to be capped at inflation (assumed at 2% for modeling purposes)]**
- **[Transition Period: (May 2022- April 2027) bills increased at a consistent rate which is set so that the borrowing will not exceed the Trust's capacity, which is determined by the Finance Service Manager]**
- **[Amortization Period: (May 2027-April 2047) equitable distribution of Finance Amount among Regulated Consumers]**

1. Future Fair Share of Green Transition Benefits should be allocated over the period ending on the Program End Date.

~~2.~~ <~~*The Fair Allocation Plan should specify the Reference Periods for the purpose of*~~ >~~identifying applicable Retail Consumer Groups and~~ <~~*allocating Future Fair Share of Green Transition Benefits among*~~ >~~them~~<~~ *on a relative basis over time.*~~ >

2. ~~3.~~ The share of Future Fair Share of Green Transition Benefits allocable to a particular ~~Retail~~**Regulated** Consumer~~ Group~~ in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to ~~the Retail~~**such Regulated** Consumer~~ Group~~ over such Reference Period~~.~~**, other than**> *in exceptional circumstances*<**.**

~~18~~15 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current procurement contracts and not invest in extending service lives to secure further procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

~~4.~~ ~~The share of Future Fair Share of Green Transition Benefits to be allocated to a Retail Consumer Group and any future Retail Consumer Group at a particular time should not exceed the Estimated Future Green Transition Benefits, measured in respect of the Reference Periods following such particular time and to the Program End Date.~~

~~5.~~ ~~No future Retail Consumer Group should be allocated an unreasonably disproportionate share of Estimated Future Green Transition Benefits. Except~~<~~*in exceptional circumstances*~~>~~ ~~or in the case of any reallocation of an Over-Assessed Amount as contemplated in 7, below, the Future Fair Share of Green Transition Benefits to be allocated under a Fair Allocation Plan to any future Retail Consumer Group should have regard to~~ ~~*[Insert formula if a year-over-year maximum amount is determined to be appropriate]*~~.

3. ~~6. The time value of money should be reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.~~>*The Fair Allocation Plan should specify the Reference Periods for the purpose of* <>*allocating Future Fair Share of Green Transition Benefits among* <**Regulated Consumers**> *on a relative basis over time.* <

~~7.~~ ~~To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.~~

(3) Attribution Methodology – The Fair Allocation Plan shall specify the Attribution Methodology for the purposes of allocating the Period ~~Transition~~**Finance** Charges across the ~~Retail~~**Regulated** Consumers~~ of a particular Retail Consumer Group~~. The Attribution Methodology shall result in an attribution of such Transition Charges that is considered by the Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation~~.~~ **; provided that**> *the Attribution Methodology* <**shall not be used to limit the recovery of Transition Charges. [NTD: Can the methodology be adjusted outside an amendment? If so, the rating agencies need to understand the limits of any adjustment.]**

(4) **Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation~~ and~~, (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation~~.~~**, and (c) not impair any Regulatory Asset, outstanding Funding Obligation or any Transition Charges. [NTD: If the Fair Allocation Plan is amended, there should be no further Regulatory Assets until the revised Fair Allocation Plan and corresponding Financing Plan have been approved.]**

Article 8 – The IESO ~~Retained Interest~~Funding Shortfall

(1) ~~**Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.~~**Recording of IESO Funding Shortfall -- IESO will record any IESO Funding Shortfall in its books.**

~~(2)~~ ~~**Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.~~

(2) ~~(3)~~ **Dispositions** – IESO may effect a Disposition **of all or any part of the IESO Funding Shortfall** to an Absolute Assignee if (a) the ~~Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the~~ Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; **and** (~~c~~**b**) the Financial Services ~~Agent~~**Manager** confirms in writing that the Disposition **complies with any restrictions or limitations specified with respect thereto in any documents evidencing the Funding Obligations and** is permitted under the Financing Plan~~; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition~~.

(3) ~~(4)~~ **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any ~~Investment Interest~~**IESO Funding Shortfall** subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party~~ and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.~~

~~(5)~~ ~~**IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.~~ ~~**(6) IESO Recoveries –**~~

IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan [NTD: Move all of Article 9 to Regulations other than 9(1).]

(1) Power to Prepare, Implement and Amend the Financing Plan – The Financial Services AgentManager shall be authorized to prepare, implement and amend a financing plan for the Financing Entities> *and propose the adoption*< of such financing plan as the Financing Plan. If the Financial Services Agent is unwilling or unable to prepare< *and propose the adoption*> of the Financing Plan, the Delegate may by written declaration designate one or more other persons who shall be authorized to prepare, implement and amend the Financing Plan for the purposes of this Act. The Financial Services Manager shall have the right to withdraw its financing plan as the Financing Plan at any time if it determines that implementing the Financing Plan in such manner would not be in the best interests of a Financing Entity.

(2) TermsPrinciples and ConditionsParameters of the Financing Plan – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions. The Financing Plan shall have having regard to the principles and parameters set forth in Schedule 3 and such other conditions and requirements as may be specified in a written declaration of the Delegate or in accordance with the Regulation.3.

(3) OEB Approval – Any Additional Funding Charge payable to or for the benefit of the Financial Services AgentManager in respect of services provided by the Financial Services Manager (other than third party costs) shall be subject to review and approval by the OEB.

(4) OEB Review of Financing Plan – The [OEB] [shall] undertake an annual review of the records maintained by the Financial Services AgentManager for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan. [NTD: We would prefer that this be dealt with by an attestation prepared by an officer of the Financial Services Manager.]

(5) Replacement of the Administrative AgentFinancial Services Manager – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative AgentFinancial Services Manager shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services AgentManager under the Financing Plan. If the Financial Services AgentManager is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services. Manager. Any replacement must comply with the restrictions and limitations specified in the documents evidencing the Funding Obligations.

(6) Obligation to Apply IESO Remittances – The Financial Services AgentManager shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Absolute Assignees, or otherwise in respect of or as proceeds from an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when

they are due and payable and for no other purpose. **[NTD: This can be dealt with by contract.]**

(7) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services ~~Agent~~**Manager**, the OEB~~, the Province or the Lieutenant Governor in Council~~ **or Her Majesty in right of Ontario**, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. ~~[All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]~~

(8) Incurrences are Binding – ~~Notwithstanding anything to the contrary in this Act, each~~**Each** Disposition made to or by an Absolute Assignee~~ and~~**,** all amounts payable or becoming due and payable by or on behalf of an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation **and each Pledge entered into by an Absolute Assignee**, shall be **valid and** binding~~ for the purposes of this Act~~, including in determining the amount of related Transition Charges, ~~despite~~**notwithstanding** any ~~impairment or defect resulting from such failure~~**defect in the manner in incurrence or any inconsistency with the Fair Allocation Plan or the Financing Plan**.

[Article 10 – Compliance Matters~~19~~**16**

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Act, the OEB shall have the right, jurisdiction, power and authority to examine the books and records of *[Insert names if any]*.

(2) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services ~~Agent~~**Manager** [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services ~~Agent~~**Manager**; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.]~~20~~**17**

~~19~~**16** As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

~~20~~**17** As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as ~~Administrative Agent~~**Financial Services Manager** of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

Article 11 – Undertaking of the ~~Lieutenant Governor in Council~~[21]Her Majesty in right of Ontario[18]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – ~~The [Lieutenant Governor in Council]~~**Her Majesty in right of Ontario** shall not in any way take or permit **(including by any agency or administrative body)** any action to reduce, impair, postpone or terminate the obligation of ~~Retail~~**Regulated** Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly, including through the introduction of any bill or the passing of any legislation or regulation having such effect. The amount of Transition Charges determined under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by ~~the Lieutenant Governor in Council~~**Her Majesty in right of Ontario (including by any agency or administrative body)**, including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(2) **Undertaking and Agreement** – ~~The [Lieutenant Governor in Council]~~**Her Majesty in right of Ontario** shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the Absolute Assignees or any Pledgee from time to time;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder, **or would not otherwise comply with the restrictions and limitations specified in the documents evidencing the Funding Obligations,**

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, **an IESO** Successor ~~IESO~~ shall **immediately** be established **by Her Majesty in right of Ontario** to perform such obligations.

~~21~~[18] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes. ⊥
In the event of a market disruption that renders it impossible to refinance debt when required (or where financing of amounts required to service the debt is not available because of a market disruption where the Financing Entity was relying on such further issuance of debt until the recovery is set to begin to fund interest), either the Province must step in and payout the debt or there must be the right to recover the debt from ratepayers as it becomes due, notwithstanding the intended rate cut.

(4) Compensation for Failure – Absolute Assignees shall be compensated **by Her Majesty in right of Ontario** for any losses suffered by them as a result of any failure by ~~the Lieutenant Governor in Council~~**Her Majesty in right of Ontario** to comply with its undertakings and agreements in this Article 11.~~22~~19

(5) No Wind-up of Financing Entity. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid. **[NTD: This concept can be contained in the Regulations.]**

(6) References to the Undertaking and Agreement – Any non-confidential reference to the Undertaking of the ~~Lieutenant Governor in Council~~**Her Majesty in right of Ontario**, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 12 – Regulations

Regulations may be made under this Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 13- Miscellaneous~~23~~20

~~22~~19 Requested by ~~Torys~~**Dealers**. For discussion.

~~23~~20 OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Act shall be required with respect to the actions to be taken in compliance with this Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Act, if any provision of this Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Act that is taken by any person who is or may become obligated or have duties that arise under this Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Act are intended to be severable and that the Legislature would have enacted this Act even if any Article, Section, paragraph or subparagraph of this Act held to be unconstitutional or invalid had not been included in this Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles and Parameters for Establishing the Financing Plan

The following principles and parameters provide a guideline as to what a Financing Plan should address:

~~(1)~~ ~~in respect of each Reference Period, make reference to the allocations of Future Fair Share of Green Transition Benefits to each Reference Group contemplated by the Fair Allocation Plan;~~

~~(2)~~ ~~estimate IESO Funding Shortfalls for each Reference Period;~~

~~(3)~~ ~~consider alternative funding arrangements suitable to fund the estimated IESO Funding Shortfalls, including short term and/or long term Funding Obligations;~~

(1) ~~(9)~~ consider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that payments made for a Reference Period reasonably correspond to the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

(2) ~~(4)~~ if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable ~~Retail Consumer Group~~**Regulated Consumers** under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(3) ~~(5)~~ reflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical ~~Retail~~**Regulated** Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation **[having regard to the application of the ~~Allocation~~Attribution Methodology][NTD: Are the words in square brackets necessary?]**);

(4) **require the Financial Services Manager, for and on behalf of each Regulatory Asset Owner, to use diligent efforts to manage Finance Amounts to be borne by Ratepayers;**

(5) **include a proposal regarding the compensation of the Financial Services Manager that reflects market terms and conditions; and**

(6) ~~incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:~~**require that the Financial Services Manager report annually to**

[24] ~~Awaiting input from Torys based on OPG mark-up of Financing Plan sections.~~

the Ministry of Energy on the operation of the Financing Plan including, in particular, with respect to the amount and terms of the Funding Obligations incurred and the sufficiency of such Funding Obligations for the purpose of funding the estimated Funding Shortfalls in accordance with the Fair Allocation Plan.

~~a. whether the Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short term liquidity would not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;~~

~~b. the basis upon which the Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations should not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;~~

~~c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;~~

~~d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Financial Services Agent to be appropriate in the circumstances;~~

~~e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Financial Services Agent shall cause the applicable Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;~~

~~f. the basis upon which the Financial Services Agent will select counterparties under any transaction to be entered into by an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;~~

~~g. the basis upon which the Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard~~

to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding Shortfalls from time to time on a basis that is consistent with the allocations of Future Fair Share of Green Transition Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Financial Services Agent and other agents and service providers to the Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) describe the requirements applicable to any special purchase entity that will purchase an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities; and

(16) the basis on which any Pledge may be given or effected.

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CONFIDENTIAL AND PRIVILEGED

Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act"

Article 1 – Purpose

The Province has and continues to encourage the construction and development of facilities for the long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer, feed in tariff and other similar programs (the "Green Generation Initiative"). The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will continue to benefit present and future electricity consumers in the Province.

The out-of-market costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment").

The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province under the Green Generation Initiative. These amounts paid by the IESO arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with revenue certainty, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. **[NTD: This statement is not correct in respect of all IESO procurement contracts.]** It has been determined that the useful lives of many of the assets developed under the Green Generation Initiative will be in excess of the respective terms of their respective procurement contracts.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective terms of the applicable procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Regulated Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Regulated Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on general principles and parameters that establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative equitably across present and future Regulated Consumers (the "Fair Allocation Plan"). **[NTD: There is no explanation as to why realignment is limited to Regulated Consumers.]**

If the Fair Allocation Plan determines that the equitable allocation of the costs associated with the Green Generation Initiative to the Regulated Consumers of a particular time period should be reduced below the amount that currently would be charged based on the Green Costs Adjustment, then the amount payable by such Regulated Consumers and in turn available to IESO will, in the aggregate, be less than the amount payable by the IESO to the generators in

respect of such period. In this case, IESO will need to obtain funding from another source to cover such a shortfall. If a funding obligation is incurred to cover such a shortfall during any period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs incurred will become payable in future periods. In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding amounts when they become due and payable, this Act imposes irrevocable and non-bypassable financial obligations on Regulated Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts. The right and interest in and to collect such financial obligations will take the form of the Regulatory Asset contemplated in this Act, which will constitute property rights and interests. Interests in the Regulatory Asset may be sold and absolutely assigned by IESO to one or more financing entities, which in turn will finance their acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf of such financing entities by a financial services manager under the Financing Plan contemplated in this Act.

[NTD: Our strong preference is to limit the introduction to the next paragraph and move defined terms from the previous paragraphs to Article 2]

The purpose of this Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Regulated Consumers on an equitable and cost effective basis.

Article 2 – Definitions

In this Act: **[NTD: It would be preferable to use plain language definitions in the legislation and leave the more detailed definitions to either the regulations or the agreements contemplated hereunder.]**

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition other than as security.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Financial Services Manager whose records shall be determinative for the purposes of this Act except to the extent of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including without limitation such amounts as may be prescribed.
>
> **[NTD: See section 5(11). Remove this concept globally.]**

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners. **[NTD: We see this, in effect, as the same thing as the IESO Successor; that is, replacement of the master Servicer.]**

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[1] means the methodology specified in the Fair Allocation Plan for allocating the Period Finance Charges for a Reference Period to Regulated Consumers. **[NTD: We understood that the Ministry accepted that the transition charge would be a volumetric rate.][NTD: Can be moved to Regulations.]**

"Collected Amount Adjustment" means, in respect of a True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the Financial Services Manager, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[2]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee), each Pledgee, and the Financial Services Manager that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis. **[NTD: Move to Regulations.]**

"Delegate" means any of the following person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act: ●. **[NTD: Why is this delegation of authority necessary? This requires further discussion and clarity as to which entity or entities that the Province can select as the Delegate; for example, it would not be acceptable for the Province to select the OEB to be the Delegate. If this is required, an acceptable delegate would be a stakeholder committee comprised of representatives from the Ministry of Energy, the OEB, the IESO, and OPG. In addition, the regulation should prescribe how the stakeholder committee would operate.]**

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of (a) IESO's right to recover all or any portion of an IESO Funding Shortfall or (b) an Investment Interest to an Absolute Assignee, in each case pursuant to a Disposition Document.

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[1] This allocation may be volumetric or some combination of a flat amount and a volumetric charge. Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

[2] This would pick up adjustments based on actual collection experience, changes in the Regulated Consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which IESO or an Absolute Assignee effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means a rate regulated distributor licensed under Part V of the *Ontario Energy Board Act, 1998*, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received **[NTD: estimated to be received? will each Electricity Distributor know?]** by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to Servicer or if applicable the Alternative Collection Agent in accordance with Section 5(3), including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by an Electricity Distributor (or in its stead, by an Alternative Collection Agent), by the Servicer or by a Retailer, in each case to a Regulated Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to such Electricity Distributor's distribution system and in respect of applicable Transition Charges to be charged to the Regulated Consumer under this Act. **[NTD: The Alternative Servicer should only invoice for Transition Charges, not the entire invoice. Also, to avoid confusion, we suggest using the word "invoice" in reference to what the IESO sends out to distributors, and "bills" in reference to what distributors send out to consumers.]**

"Estimate" means (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Financial Services Manager; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to Regulated Consumers, the estimated value (in current dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Act except to the extent of a manifest calculation error.

"Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Regulated Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Regulated Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, for a Reference Period, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of all Absolute Assignees: (a) Repayments; (b) Net Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals. **[NTD: Move this to regulation.]**

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan. **[NTD: Move this to regulation.]**

"Financial Services Manager" means OPG or, following any Replacement Event involving OPG, such other person who may be appointed as the financial services manager of the Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[3]

"Financing Entity" means any entity established at the initiative of and managed by the Financial Services Manager to support the Financing Plan.[4]

"Financing Plan" means the written plan prepared by the Financial Services Manager in accordance with Article 9, as the same may be amended, amended and restated or terminated by the Financial Services Manager in accordance with Article 9 from time to time.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including, without limitation, each obligation to pay: principal, interest, premiums and other financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Managers, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges) incurred by or on behalf of the Absolute Assignee under

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[3] There must only be one Financial Services Manager.

[4] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

"Global Adjustment" has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" has the meaning given in Article 1.

"IESO" means the Independent Electricity System Operator created pursuant to Part II of the *Electricity Act, 1998*.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO , during the month pursuant to section • of the *Electricity Act* in respect of Regulated Consumers. **[NTD: IESO indicates that it likely does not work to express in regards to "amounts payable by the LDCs" because settlement between the IESO and LDCs entails payments by LDCs to the IESO and then credits/debits by the IESO to LDCs to reflect RPP shortfalls/overages.]**

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[5].To the extent reasonably necessary to give effect to this Act, or any transaction contemplated hereby, IESO shall calculate the IESO Funding Shortfall for any month taking into account information provided by the Electricity Distributors and (i) such calculation shall be binding for all purposes; and (ii) any demonstrated inaccuracy in the calculation for any month (including any such resulting from inaccuracies in the information provided by Electricity Distributors) shall be accounted for by adjusting the IESO Funding Shortfall for a subsequent month. **[NTD: Need to add the mechanism for IESO to record this shortfall because without that there is no Regulatory Asset. This IESO Funding Shortfall is the regulatory asset owned by IESO.]**

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative

[5] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Funding Obligations due and payable by all Absolute Assignees in respect of the month.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"Net Funding Costs" means, for a Reference Period in respect of a Financing Entity, the amount by which (a) the aggregate of all interest, scheduled principal and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including such amounts as may be prescribed, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of the Funding Obligations referred to in (a), including such amounts as may be prescribed.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount (b) the True-Up Amount in respect of the applicable True-Up Period and (c) an adjustment amount as may be prescribed to account for estimated collection shortfalls and collection delays in respect of amounts under (a) and (b).

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Investment Interest.

"Pledgee" means a person to whom an Absolute Assignee grants a Pledge.

"Program End Date" means •, [2047].

"Province" means the Province of Ontario.

"Redemption Amount" means the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the Measurement Date to (and including) October 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Refinancing" means, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of the Absolute Assignee by applying the net proceeds obtained by the Absolute Assignee incurring one or more other Funding Obligations.

"Regulated Consumer" means consumers of electricity in the Province as prescribed.

[NTD: There are a number of issues with this definition. First, the word "Retail" is a source of confusion as it implies customers of licensed retailers. Really, the purpose of the term is to define the group of consumers that are eligible to receive the benefit of the Fair Hydro program and who will bear the cost of the program over the long term. We have proposed "Regulated Consumer" but you could also use the term "Eligible Consumer" or "Fair Hydro Eligible Consumer" and for purposes of the legislation to say that it is a member of a class of consumers prescribed by the regulations for purposes of the relevant section of the legislation. The regulation would then describe who is in the class. Second, it may not be appropriate to rely on the class of consumers prescribed for the purposes of s. 79.16 or under the OREC Act. Section 79.16 is the section that defines the class of RPP consumers. We understand that the "Fair Hydro Eligible Consumers" are not an identical class to that which is eligible for the RPP or for the Ontario Rebate for Electricity Consumers. For example, we have heard that Fair Hydro Eligible Consumers will (a) exclude consumers served by independent power authorities (certain remote communities not served by Hydro One Remotes), and (b) include consumers served by licensed unit sub-metering providers, licensed retailers and certain consumers served directly by the IESO (which may or may not be captured by the classes under 79.16 or OREC). Third, it is not clear why consumers with contracts with retailers who use retailer consolidated billing are removed from the first part of the definition but then added back into the second part of the definition. Fourth, Retailers do not necessarily have physical electricity assets that would be connected to the grid. Some just sell or offer contracts for electricity. As such, the first few lines after (b) are problematic. Fifth, the phrase "purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets" does not make sense. A consumer does not purchase generation services from a transmitter or distributor. Rather, a consumer receives distribution services from a distributor. In addition to charging for its distribution services, the distributor also charges the associated

transmission costs and commodity costs associated with the volumes delivered. Those commodity costs are the price of the electricity itself and are almost entirely made up of the amounts determined under the global adjustment. Sixth, the phrase "whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO" does not make sense. Transmission assets are owned and operated by transmitters. Distribution assets are owned and operated by distributors. The IESO does not own but does administer and direct the operation of the transmission system.]

"Regulatory Asset" means the property rights and interests described in Section 6(1), which collectively is comprised of each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; and (b) for the Servicer, any bank account into which Servicer deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each Absolute Assignee, as owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7).

"Related Rights" means, with respect to a Regulatory Asset Owner's Investment Interest, all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Investment Interest.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to Servicer or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in accordance with any Funding Obligation, then the Business Day **[NTD: Not defined.]** preceding each Settlement Date. **[NTD: Move to Regulations. Remittances will be in accordance with the current rules.]**

"Repayment Obligation" means an obligation to repay or to provide for the repayment (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Servicer" means IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, the amount recoverable from a Regulated Consumer in respect of a Reference Period, being the Period Finance Charge as allocated to such Regulated Consumer in accordance with Article 4(3) on a monthly basis. **[NTD: This needs to be grossed up to account for variability associated with expected uncollectables and remittance delays.]** **[NTD: Do not need to create parallel process. The definition should be linked to the OEB process for determining the volumetric rate as part of the RPP process (see s. 4(2)). The OEB will determine volumetric rate based on forecast consumption, number of consumers, etc. to recover the Period Finance Charges.]**

"Transition Charge Collection" means any amount received **[or deemed by this Act to have been received]** by the Absolute Assignees upon the collection of a Transition Charge paid by or on behalf of a Regulated Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Financial Services Manager equal to (a) the Actual Finance Amount for such related True-Up Period, minus (b) the Estimate of the Finance Amount for the related True-Up Period, , plus (c) the Collected Amount Adjustment for such related True-Up Period. **[NTD: need to discuss how this will work for our true-up. What about prior period shortages? An example of how this works needs to be provided.]**

"True-Up Period" means, in relation to a Reference Period, the immediately preceding Reference Period.

"Undertaking of Her Majesty in right of Ontario" means the undertaking of Her Majesty in right of Ontario given under Section 11(2).

Article 3 – Transition Charges

(1) **Regulated Consumer Obligation to Pay a Transition Charge** – Each Regulated Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Regulated Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Regulated Consumers** – Until paid, a Transition Charge charged to a Regulated Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the

Regulated Consumer to the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset. Such indebtedness shall constitute a single and separate[6] debt obligation owing by the Regulated Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Regulated Consumer under the Electricity Invoice or otherwise.[7]

(3) No Set-Off or Reduction – A Regulated Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Regulated Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) Allocation of Regulated Consumer Payments – If an Electricity Distributor receives a payment made by or on behalf of a Regulated Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be subject to rights and benefits that are no less favourable than the treatment accorded to other amounts payable to the IESO by the Electricity Distributor.

(5) Transition Charges are Irrevocable – The Transition Charges arising under or in respect of Funding Obligations (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 9(3)) are deemed to be irrevocable, final and effective without any further action, except to the extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period regardless of whether the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, and regardless of whether the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) True-Up of Transition Charges? – [NTD: Include specifics regarding the true-up of the charges and the process for the true-up, but move to Regulations. The True-Up Mechanism should require the Transition Charges to be reviewed and adjusted semi-annually to ensure the expected recovery of amounts sufficient to timely provide all payments in respect of Funding Obligations, provided that in some cases it may need to be adjusted more frequently than semi-annually, e.g., as part of a refinancing.]

(7) Commencement of Invoicing and Collection of Transition Charges – [NTD: Please confirm that as drafted, Transition Charges will begin on the Measurement Date.]

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[6] Determine if this is critical for rating and markets. Logistics under consideration.

[7] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consider if it is helpful to integrate the existing regulatory scheme for invoicing and collections (regarding RPP) in the legislation.

Article 4 – Invoicing of Transition Charges [NTD: Move Article 4 sections (1) to (4) to Regulations. Also note, these sections remain subject to further due diligence by the Dealers.]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Regulated Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the Regulated Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Regulated Consumer. **[NTD: Must capture bills issued to eligible consumers served by unit sub-metering providers, retailers and the IESO – not just distributors][NTD: This provision also needs to address the inclusion of Transition Charges in invoices from the IESO to the LDC, consistent with the current process of how the IESO bills LDCs.]**

(2) **Calculation of the Period Finance Charge** – Not later than [35] days prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services Manager on its behalf) shall provide the OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. Not later than one month prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services Manager on its behalf) shall calculate the Period Finance Charge applicable to the Reference Period having regard to such amounts specified by the Servicer, which calculations, information and amounts shall be accepted by the OEB and shall be determinative, except to the extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the allocation of the Transition Charge for each Regulated Consumer. **[NTD: We think the OEB would be determining the Fair Hydro recovery rate (on a volumetric basis) that distributors would then be required to charge to consumers]**

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Regulated Consumer who is served by the Electricity Distributor.

(5) **Adjustments** – The amount of any Transition Charge charged to a Regulated Consumer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, except to the extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners. **[NTD: We would expect the IESO to manage this in accordance with its normal business practices.]**

(9) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Regulated Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges or to otherwise comply with this Act. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure and may make any interim or final order it thinks fit in this regard. **[NTD: We would like to see the sections on "Standing" to bring an action to remain in the legislation (as opposed to being moved to the regulations as we believe we previously suggested) as we see those provisions as part of ensuring a rigorous enforcement scheme for the Financing Entity (and so something that should be difficult for the Province to change going forward).]**

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Servicer to ensure that Transition Charges are properly charged to Regulated Consumers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances [NTD: Move Article 5 sections (3), (6), (9), (12), (13) and (14) to Regulations.]

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Servicer, collect amounts owing by Regulated Consumers in respect of Transition Charges charged to such Regulated Consumers in

Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent all in accordance with the Regulations. **[NTD: The obligation to collect and remit the Transition Charge should be included as a deemed condition of license for electricity distributors (and retailers and unit sub-metering providers).]**

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Regulated Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[8] **[NTD: Determine if this is critical for rating and markets or if segregation can occur in the hands of the IESO]** Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners or its Pledgee.

(3) **Electricity Distributor Remittances** – On each applicable Remittance Date, an Electricity Distributor shall remit all amounts invoiced by the IESO on account of the Transition Charge in respect of the related Reference Period to or to the account of Servicer or if applicable the Alternative Collection Agent. **[NTD: It is the Dealers expectation that the Transition Charge will be paid on the same basis as other amounts invoiced by the IESO, failing which, they will need to be remitted daily.]**

(4) **Duty to Collect Electricity Distributor Remittances** – Servicer or if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Regulated Consumers that pay their Electricity Invoices directly to IESO on the same basis as it accepts and collects other charges from such Regulated Consumers.[9]

(5) **Segregation of Electricity Distributor Remittances** – Servicer and if applicable the Alternative Collection Agent shall promptly segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, Servicer or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners or Pledgee.

(6) **Servicer Remittances** – On each Settlement Date[10], Servicer shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Absolute Assignees an amount equal to the Investment Remittance for the related month.

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[8] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.

[9] Consider building this obligation into a deemed condition of licence for the IESO.

[10] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **IESO Successors** – IESO Successors shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[11], then such person shall, if requested by the Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Regulated Consumers connected to such person's distribution system assets; (b) allocate partial payments by Regulated Consumers as provided in this Act; (c) exercise all enforcement rights of the Absolute Assignees for the benefit of an Absolute Assignee; and (d) remit any Transition Charge Collections to the Absolute Assignees or Pledgees, as applicable, each in accordance with its Investment Interest. **[NTD: Such acquisition of a distribution system would require the person to be an electricity distributor; consider deleting since this is covered off by Section 5(7).]**

(10) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, Servicer, the Alternative Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Regulated Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5, or to otherwise comply with this Act. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure and may make any interim or final order it thinks fit in this regard.

(11) **Not Used. [NTD: The Servicer should manage this process.**]

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Regulated Consumer, any Electricity Distributor, Servicer, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, Servicer,

[11] This is in anticipation of a possible future restructuring of the distribution system.

Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[12]

(13) **Sequestration** – If any Electricity Distributor, Servicer, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Absolute Assignees, each with respect to its Investment Interest, and the Pledgees as applicable.[13]

[NTD: Suggest considering a more typical remedy such as the ability to appoint a receiver. Concept should be moved to Regulations.]

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to Servicer, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

[NTD: We believe that the statute should impose a time limit on the ability of IESO to create additional Regulatory Assets under this Act. It is our expectation that this will be no later than 10 years after the commencement of the program.]

[NTD: In addition, additional language is required to address the acquisition of the Regulatory Asset by the Financing Entity, including reference to the consideration being provided for it, funding upfront costs.]

[NTD: The sale of Regulatory Assets must be restricted to Financing Entities controlled by a single entity (initially, OPG).]

[NTD: For greater certainty, a Financing Entity will not be required to purchase Regulatory Assets from IESO.]

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[12] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Regulated Consumer reduces its payment of Transition Charges, despite this language. Same for Electricity Distributor Remittances and IESO Remittances.

[13] Consider adding or substituting this provision for a right to appoint a receiver.

(1) **Composition** – The Regulatory Asset shall constitute a current and irrevocable property right and interest consisting, collectively, of the following rights and interests (without duplication):

a. the right of a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts;

b. the right to impose, bill, invoice, collect and receive Transition Charges from Regulated Consumers, including the right to determine the amount of Transition Charges in accordance with this Act;

c. the right to enforce the obligations and indebtedness of each Regulated Consumer to pay the Transition Charges charged to the Regulated Consumer from time to time in accordance with Article 3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices; **[NTD: Do we really want and need the ability for the Financing Entities to chase after individual consumers?] [NTD: This should be the right to provide notices to the OEB of the amounts required for recovery, which the OEB would then be required to accept for purposes of determining the amount of Transition Charges to be charged to consumers]**

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of Servicer or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5;

f. the right to enforce the duties and obligations of Servicer and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred. The Regulatory Asset shall continue to exist until all Funding Obligations and Additional Funding Charges have been paid in full.

(2) **Validity of Dispositions** – A Disposition by IESO of all or any part of the IESO Funding Shortfall to an Absolute Assignee, or a Disposition of all or any part of an Investment Interest by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the IESO Funding Shortfall or Investment Interest, as applicable (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the IESO Funding Shortfall or an Absolute Assignee's right, title and interest in, to and under an Investment Interest, as applicable (or relevant portion thereof), and not merely as a Pledge thereof, and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the IESO Funding Shortfall or Investment Interest (or relevant portion thereof) subject to the Disposition, including all rights under the IESO Funding Shortfall or Investment Interest arising after such Disposition. **[NTD: Subject to review by Osler/dealers.]**

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the IESO or transferring Regulatory Asset Owner, as applicable, and all other persons who have claims of any kind (whether in tort, contract or otherwise) against IESO or the transferring Regulatory Asset Owner, as the case may be, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – A Pledge by an Absolute Assignee may be made to secure any Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the related Investment Interest in accordance with the terms of the

Pledge. No consent of, or notice to, any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation shall, subject to the terms thereof, give rise to a security interest of which the PPSA applies, and may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected pursuant to the PPSA.[14] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may attach to the property rights and interests in the Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. A Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. All provisions of the PPSA shall apply to the Regulatory Asset on the basis that it is intangible personal property, except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's rights and interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective and coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement. **[NTD: Move to Regulations.]**

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[14] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

Article 7 – Establishment of the Fair Allocation Plan[15] [NTD: Move entire Article 7 to Regulations, other than 7(1) and 7(2).]

(1) **Adoption of the Fair Allocation Plan** – The Delegate may, by written declaration, designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Act, except if amended, amended and restated or terminated by a further written declaration made by the Delegate in compliance with **[the Regulations]**

(2) **Principles and Parameters** – A Fair Allocation Plan shall seek to allocate Future Fair Share of Green Transition Benefits across present and future Regulated Consumers on a basis that the Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters:

[NTD: E&Y will need to see the guidelines of the Fair Allocation Plan set in reference to parameters that will allow it to establish a modeling curve]

- [**Inflation period**: (between November 2017 – and April 2022) bill increases need to be capped at inflation (assumed at 2% for modeling purposes)]

- [**Transition Period**: (May 2022- April 2027) bills increased at a consistent rate which is set so that the borrowing will not exceed the Trust's capacity, which is determined by the Finance Service Manager]

- [**Amortization Period**: (May 2027-April 2047) equitable distribution of Finance Amount among Regulated Consumers]

1. Future Fair Share of Green Transition Benefits should be allocated over the period ending on the Program End Date.

2. The share of Future Fair Share of Green Transition Benefits allocable to a particular Regulated Consumer in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to such Regulated Consumer over such Reference Period, other than in exceptional circumstances.

3. The Fair Allocation Plan should specify the Reference Periods for the purpose of allocating Future Fair Share of Green Transition Benefits among Regulated Consumers on a relative basis over time.

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15 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current procurement contracts and not invest in extending service lives to secure further procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

(3) Attribution Methodology – The Fair Allocation Plan shall specify the Attribution Methodology for the purposes of allocating the Period Finance Charges across the Regulated Consumers. The Attribution Methodology shall result in an attribution of such Transition Charges that is considered by the Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation; provided that the Attribution Methodology shall not be used to limit the recovery of Transition Charges. **[NTD: Can the methodology be adjusted outside an amendment? If so, the rating agencies need to understand the limits of any adjustment.]**

(4) Amendments of the Fair Allocation Plan – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation, (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation, and (c) not impair any Regulatory Asset, outstanding Funding Obligation or any Transition Charges. **[NTD: If the Fair Allocation Plan is amended, there should be no further Regulatory Assets until the revised Fair Allocation Plan and corresponding Financing Plan have been approved.]**

Article 8 – The IESO Funding Shortfall

(1) Recording of IESO Funding Shortfall -- IESO will record any IESO Funding Shortfall in its books.

(2) Dispositions – IESO may effect a Disposition of all or any part of the IESO Funding Shortfall to an Absolute Assignee if (a) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; and (b) the Financial Services Manager confirms in writing that the Disposition complies with any restrictions or limitations specified with respect thereto in any documents evidencing the Funding Obligations and is permitted under the Financing Plan.

(3) No Continuing Interest in any Investment Interest – IESO shall have no continuing right or interest in any IESO Funding Shortfall subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party.

Article 9 – The Financing Plan **[NTD: Move all of Article 9 to Regulations other than 9(1).]**

(1) Power to Prepare, Implement and Amend the Financing Plan – The Financial Services Manager shall be authorized to prepare, implement and amend a financing plan for the Financing Entities and propose the adoption of such financing plan as the Financing Plan for the purposes of this Act. The Financial Services Manager shall have the right to withdraw its financing plan as the Financing Plan at any time if it determines that implementing the Financing Plan in such manner would not be in the best interests of a Financing Entity.

(2) Principles and Parameters of the Financing Plan – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions having regard to the principles and parameters set forth in Schedule 3.

(3) OEB Approval – Any Additional Funding Charge payable to the Financial Services Manager in respect of services provided by the Financial Services Manager (other than third party costs) shall be subject to review and approval by the OEB.

(4) Review of Financing Plan – The [OEB] shall undertake an annual review of the records maintained by the Financial Services Manager for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan. **[NTD: We would prefer that this be dealt with by an attestation prepared by an officer of the Financial Services Manager.]**

(5) Replacement of the Financial Services Manager – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Financial Services Manager shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Manager under the Financing Plan. If the Financial Services Manager is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services Manager. Any replacement must comply with the restrictions and limitations specified in the documents evidencing the Funding Obligations.

(6) Obligation to Apply IESO Remittances – The Financial Services Manager shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Absolute Assignees, or otherwise in respect of or as proceeds from an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose. **[NTD: This can be dealt with by contract.]**

(7) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services Manager, the OEB or Her Majesty in right of Ontario, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount.

(8) Incurrences are Binding – Each Disposition made to or by an Absolute Assignee, all amounts payable or becoming due and payable by or on behalf of an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation and each Pledge entered into by an Absolute Assignee, shall be valid and binding, including in determining the amount of related Transition Charges, notwithstanding any defect in the manner in incurrence or any inconsistency with the Fair Allocation Plan or the Financing Plan.

[Article 10 – Compliance Matters[16]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Act, the OEB shall have the right, jurisdiction, power and authority to examine the books and records of *[Insert names if any]*.

(2) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services Manager [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services Manager; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][17]

Article 11 – Undertaking of the Her Majesty in right of Ontario[18]

(1) No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections – Her Majesty in right of Ontario shall not in any way take or permit (including by any agency or administrative body) any action to reduce, impair, postpone or terminate the obligation of Regulated Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly, including through the introduction of any bill or the passing of any legislation or regulation having such effect. The amount of Transition Charges determined under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by Her Majesty in right of Ontario (including by any agency or administrative body), including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(2) Undertaking and Agreement – Her Majesty in right of Ontario shall not:

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[16] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

[17] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Financial Services Manager of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

[18] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

In the event of a market disruption that renders it impossible to refinance debt when required (or where financing of amounts required to service the debt is not available because of a market disruption where the Financing Entity was relying on such further issuance of debt until the recovery is set to begin to fund interest), either the Province must step in and payout the debt or there must be the right to recover the debt from ratepayers as it becomes due, notwithstanding the intended rate cut.

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the Absolute Assignees or any Pledgee from time to time;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment, amendment and restatement or termination would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder, or would not otherwise comply with the restrictions and limitations specified in the documents evidencing the Funding Obligations,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, an IESO Successor shall immediately be established by Her Majesty in right of Ontario to perform such obligations.

(4) **Compensation for Failure** – Absolute Assignees shall be compensated by Her Majesty in right of Ontario for any losses suffered by them as a result of any failure by Her Majesty in right of Ontario to comply with its undertakings and agreements in this Article 11.[19]

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid. **[NTD: This concept can be contained in the Regulations.]**

(6) **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Her Majesty in right of Ontario, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 12 – Regulations

Regulations may be made under this Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional

[19] Requested by Dealers. For discussion.

Funding Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 13- Miscellaneous[20]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Act shall be required with respect to the actions to be taken in compliance with this Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

---

[20] OPG would like the specific amendments related to OPG to be included in the Bill.]

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Act, if any provision of this Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Act that is taken by any person who is or may become obligated or have duties that arise under this Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Act are intended to be severable and that the Legislature would have enacted this Act even if any Article, Section, paragraph or subparagraph of this Act held to be unconstitutional or invalid had not been included in this Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3

Principles and Parameters for Establishing the Financing Plan

The following principles and parameters provide a guideline as to what a Financing Plan should address:

(1) consider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that payments made for a Reference Period reasonably correspond to the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

(2) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Regulated Consumers under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(3) reflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Regulated Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation **[having regard to the application of the Attribution Methodology][NTD: Are the words in square brackets necessary?]**);

(4) require the Financial Services Manager, for and on behalf of each Regulatory Asset Owner, to use diligent efforts to manage Finance Amounts to be borne by Ratepayers;

(5) include a proposal regarding the compensation of the Financial Services Manager that reflects market terms and conditions; and

(6) require that the Financial Services Manager report annually to the Ministry of Energy on the operation of the Financing Plan including, in particular, with respect to the amount and terms of the Funding Obligations incurred and the sufficiency of such Funding Obligations for the purpose of funding the estimated Funding Shortfalls in accordance with the Fair Allocation Plan.

From: Gavin He
To: Ronald Kwan; John Kim
Subject: FW: "Fair" Legislation (Discussion Draft)
Date: Friday, April 07, 2017 10:55:08 AM
Attachments: 23107566-v8-Part V.2 of the Electricity Act (Fair Hydro).DOCX
23107566-vpdf-Part V.2 of the Electricity Act (Fair Hydro).PDF

From: Calwell, Carolyn (ENERGY/MEDEI/MRI) [mailto:Carolyn.Calwell@ontario.ca]
Sent: Friday, April 07, 2017 10:30 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Joseph Pau (MEDTE/MRI) <Joseph.Pau@ontario.ca>
Subject: Fw: "Fair" Legislation (Discussion Draft)

Here is the most current mark up

From: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Sent: Friday, April 7, 2017 1:22 AM
To: Feldman, Michael
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; Rehob, James (ENERGY); Alan Hibben; Shear, Dan (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON
Subject: "Fair" Legislation (Discussion Draft)

Thanks for your comments, Michael. The attached version picks up many of your, Peter's and H&W's comments. In some cases it defers consideration, pending dealer input (such as your suggestion of tracking individual, standalone Regulatory Assets per transaction; delinking the investors from the LDCs, in favour of having IESO be the main servicer; and deleting some of the US precedent language). The regulatory input included in your mark-up was particularly helpful, although not easily dealt with tonight without the Province's input, so many of those points have simply been brought forward with additional footnotes for now. The manner and extent of delegations (primarily the Financing Plan and the Fair Allocation Plan), the nature of OEB review and regulatory actions, the scope of the undertaking and other similar issues, are still under consideration by MOE. Your comments to the effect that nothing can affect a funding obligation once incurred were referenced, as I think that is a pervasive and correct idea. The ultimate location of provisions (Part of the Electricity Act; new Act; Regulations) is still under consideration – for now it's all in this document to facilitate this group review. Finally, there are a number of "validity" type points, which arose in your mark-up and which we are still thinking about. We can discuss those further in the morning. Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com | Twitter | Unsubscribe

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From: Feldman, Michael [mailto:mfeldman@torys.com]
Sent: Thursday, April 06, 2017 4:26 PM
To: ASHBOURNE, STEPHEN
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Feldman, Michael; Watson, Gwen; James.Rehob@ontario.ca; Alan Hibben; 'Shear, Dan (ENERGY)'; Carolyn.Calwell@ontario.ca; O'Brian, Adam; Fitzpatrick, Michael F.
Subject: Torys Comments on Blakes Draft Legislation

All,

I am attaching our comments on the last version of the draft legislation sent to us by Blakes. Both a clean and blacklined version are attached.

This is being distributed to OPG at the same time as everyone else and so remains subject to their comments as this is very much a work in process.

We also just received comments from Hunton & Williams but in the interests of time we have not been able to include those in our mark up, but expect to be in a position to raise any of their big issues at our meeting tomorrow. Also, I will send their comments separately to Blakes.

Regards,

Michael K. Feldman

P. 416.865.7513 | F. 416.865.7380 | 1.800.505.8679
79 Wellington St. W., 30th Floor, Box 270, TD South Tower
Toronto, Ontario M5K 1N2 Canada | www.torys.com

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CONFIDENTIAL AND PRIVILEGED

Preliminary Draft for Discussion Purposes Only

"Fair Hydro" – Part V.2

Article 1 – Purpose[1]

IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as to encourage the construction and development of facilities for the purpose of long-term operation and generation of electricity using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer and feed in tariff programs (the "Green Generation Initiative"). [The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers. The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).

Each month, the IESO determines the Global Adjustment payable by consumers for the consumption of electricity in the Province. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts exceed the market price for electricity for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from the Green Generation Initiative, on the one hand, and the costs of the Green Generation Initiative borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect principles and parameters that can be applied from time to time in order to establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative across present and future Ratepayers. A plan to allocate such costs and benefits equitably across present and future Ratepayers may be developed based on those principles and parameters (a "Fair Allocation Plan").

If a Fair Allocation Plan determines that the equitable allocation of the Global Adjustment to the Ratepayers of a particular time period in respect of the Power Contracts should be reduced below the amount otherwise determined, the amount payable by such Ratepayers to Electricity Distributors in respect of such period, and in turn by the Electricity Distributors to the IESO, would, in the aggregate, be less than the amount payable by the IESO to the Generators under

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[1] Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.

[2] Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.

the Power Contracts in respect of such period. If the difference is greater than any net Power Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period, IESO will need to obtain funding from another source, which could include funding from third party sources operating in public and private capital markets. If a funding obligation is incurred in order to enable the IESO to cover a funding shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs will be incurred and may become payable in one or more other periods.

It will be necessary to provide a reliable and committed source of cash flows to enable IESO to repay such funding obligations and to pay related funding costs with certainty when the funding obligations become due and payable. This Part imposes irrevocable and non-bypassable financial obligations of Ratepayers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations, which will take the form of the Regulatory Asset contemplated in this Part and will constitute property rights and interests. The Regulatory Asset will be sold and absolutely assigned and will belong to one or more newly created financing entities, which in turn will finance their purchase of such Regulatory Asset by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf the financing entities by an administrative agent (initially OPG), under the Financing Plan contemplated in this Part. The Financing Plan will seek to reasonably match the payment obligations arising under funding obligations and borne by the future Ratepayers of the period in which such payment obligations become due, with the costs and benefits of the Green Generation Initiative charged to such future Ratepayers under the Fair Allocation Plan.

The purpose of this Part is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Ratepayers on an equitable and cost effective basis.

Article 2 - Definitions

In this Part:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Administrative Agent whose records shall be determinative for the purposes of this Part in the absence of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any

[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]

applicable tax amounts) that are or become payable by the Regulatory Asset Owners during the Reference Period and that were incurred or committed to directly or indirectly in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Administrative Agent on behalf of, a Regulatory Asset Owner under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on a Regulatory Asset Owner or incurred by on behalf of a Regulatory Asset Owner under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Administrative Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of a Regulatory Asset Owner; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager of director fees; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith for recovery and payment under the Financing Plan.

"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the Financing Plan in compliance with the requirements set out in Schedule 2.

"Allocation Factor" means, in respect of a Ratepayer for a Reference Period, the number (expressed as a percentage) determined in respect of the Ratepayer by [IESO] based on the application of the Attribution Methodology in respect of the Reference Period.[4]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Attribution Methodology"[5] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to the individual Ratepayers of the applicable Ratepayer Group based on its Allocation Factor.

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[4] Consider basing this on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those would be identified and rolled into the True-Up.

"Bypass Charge" means [To be developed].[6]

"Collected Amount Adjustment" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Servicer or the Administrative Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[7]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the distributor licensed by the OEB in respect of such Service Area.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by an Electricity Distributor (or in its stead, an Alternative Servicer) or by the Servicer in respect of electricity charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area.

"Estimate" means, in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of

---

[5] A key question will be how the overall costs will be spread across the rate base. For example, the allocation may be volumetric or not, or some combination of a flat amount and a volumetric charge. This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion.

[6] Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.

[7] This would pick up adjustments based on actual collection experience, changes in the Consumer Base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

such costs, expenses or payments determined by the Administrative Agent having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Part in the absence of a manifest calculation error.

"Fair Allocation Plan" [has the meaning given in Article 1].

"Finance Amount" means, in respect of a Reference Period, the sum (without duplication) of the following amounts for the Reference Period: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8]

"Financing Plan" means the written plan [prepared by the Administrative Agent] in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be

[8] OPG has suggested that the legislation provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) the establishment and operation of any Financing Entity; and (i) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.

"Funding Costs" means, for a Reference Period, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset Owner during the Reference Period in respect of all Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation, exceeds (b) the aggregate of all Finance Receipts for the Reference Period.

"Funding Obligation" means each payment obligation (including principal, interest and other financing charges, indebtedness, payment obligations arising under or in respect of derivatives, payment obligations owing to service providers, administrative agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies and all taxes payable in connection with the foregoing) incurred by or on behalf of a Regulatory Asset Owner under the Financing Plan in order to fund a Funding Shortfall for a Reference Period, including any Refinancing of another such payment obligation.[9]

"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.[10]

"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.[11]

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[9] OPG has asked whether this should include IESO finance arrangements.

[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.

[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]

"Generator" means a generator of electricity that is subject to [this Act][12].

"Global Adjustment" means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.[13]

"Green Generation Initiative" [has the meaning given in Article 1].

"IESO" means the Independent Electricity System Operator created pursuant to [insert].

"IESO Applied Surplus" means, for a Reference Period, the lesser of (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Period, exceeds (ii) the GA Power Contract Contribution for the Reference Period and (b) the IESO Unapplied Surplus on the last day of the immediately preceding Reference Period.

"IESO Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.

"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].

"IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods

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[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.

[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").

occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.

"Period Transition Charge" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Pledge" means a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by a Regulatory Asset Owner in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Regulatory Asset.

"Pledgee" means a person to whom a Regulatory Asset Owner grants a Pledge.

"Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.[14]

"Province" means the Province of Ontario.

"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.[15]

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

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[14] Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?

[15] Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owner to redeem, prepay or repurchase a Funding Obligation, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation Implementation Date] to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Refinancing" means that a Funding Obligation is repaid or repurchased for cancellation by or on behalf of a Regulatory Asset Owner by applying the net proceeds obtained by the Regulatory Asset Owner incurring one or more other Funding Obligations.

"Regulatory Asset" means the property right and interest described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Document.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which the Servicer deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, to the extent that it has retained any ownership interest in, to or under the Regulatory Asset and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Asset, and "Regulatory Asset Owners" means collectively all of the Regulatory Asset Owners, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.

"Related Rights" means, with respect to a Regulatory Asset Owner's Regulatory Asset, all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent in accordance with any Funding Obligation or, if no such day is specified in relation to any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a Finance Reserve Deposit) of, all or a portion of the amount advanced to the Regulatory Asset Owner under a Funding Obligation.

"Repayment" means a payment by a Regulatory Asset Owner made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with [this Act[17]].

"Servicer" means [To be determined], as agent for and on behalf of the Regulatory Asset Owner [To be determined – collective invoicing agent, and consider expanding].

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Ratepayer in respect of a Reference Period, the sum of (a) [one-sixth] of the Period Transition Charge multiplied by its Allocation Factor and (b) any Bypass Charge charged to the Ratepayer in respect of the Reference Period.

"Transition Charge Collection" means any amount received or deemed by this Part to have been received upon the collection of a Transition Charge paid by or on behalf of a Ratepayer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Administrative Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 10(2).

"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].[18]

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[17] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.

[18] Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.

Article 3 – Transition Charges

(1) **Ratepayer Obligation to Pay a Transition Charge** – Each Ratepayer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Ratepayer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Ratepayers** – Until paid, a Transition Charge charged to a Ratepayer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Ratepayer to the Regulatory Asset Owners (each with respect to its Regulatory Asset). Such indebtedness shall constitute a single and separate debt obligation owing by the Ratepayer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Ratepayer under the Electricity Invoice or otherwise.[19]

(3) **No Set-Off or Reduction** – A Ratepayer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Ratepayer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of Ratepayer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Ratepayer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 8(3)) are deemed to be irrevocable, final and effective without any further action, in the absence of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan

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[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation. Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis for a market-based credit decision.

applicable at the time such payments are due and payable whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) **[Anti-avoidance; No-by-pass** – Transition Charges charged to a Ratepayer in respect of any Finance Amount incurred under with the Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Ratepayer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the Ratepayer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Ratepayer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Regulatory Asset Owner (or the Administrative Agent on its behalf) shall provide the Servicer with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. Not later than one month prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer[21] shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the Regulatory Asset Owners, which shall be determinative in the absence of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer shall apply the Attribution Methodology to determine the Allocation Factor for each Ratepayer of the applicable Ratepayer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Ratepayer of the applicable Ratepayer Group who has a billing address in the Electricity Distributor's Service Area.

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[20] Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.

[21] Should this be a designated government official, rather than an agent appointed by investors?

(5) **Adjustments** – The amount of any Transition Charge charged to a Ratepayer by the Servicer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, in the absence of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Regulatory Asset Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **Regulatory Asset Owners have Standing** – The Regulatory Asset Owners may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Ratepayers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by the Regulatory Asset Owners in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor, any Alternative Servicer or any [Alternative Collection Agent] to ensure that

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[22] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

Transition Charges are properly charged to Ratepayers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent efforts] to collect amounts owing by Ratepayers in respect of Transition Charges charged to such Ratepayers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Ratepayers and deposit such Transition Charge Collections into its Regulatory Asset Account. Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for each Regulatory Asset Owner.

(3) **Electricity Distributor Remittances** – On each [applicable Remittance Date], an Electricity Distributor shall remit all Transition Charge Collections received by it from Ratepayers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Ratepayers that pay their Electricity Invoices directly to the Servicer.[23]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall [promptly] segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for each Regulatory Asset Owner.

(6) **IESO Remittances** – On each [Settlement Date][24], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Regulatory Asset Owner.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to

[23] Consider building this obligation into a deemed condition of licence for the IESO.

[24] Consider frequency of remittances in light of rating requirements.

the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **Successors of IESO** – Any successor of IESO shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[25], then such person shall, if requested by the Regulatory Asset Owners, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Ratepayers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Ratepayers as provided in this Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d) exercise all enforcement rights of the Regulatory Asset Owners or Pledgee for the benefit of a Regulatory Asset Owner or Pledgee; and (e) remit any Transition Charge Collections to the Regulatory Asset Owner or Pledgee, as applicable, each in accordance with its Regulatory Asset.

(10) **Regulatory Asset Owners have Standing** – The Regulatory Asset Owners and any Pledgee may bring actions against any Electricity Distributor, IESO, Alternative Servicer, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Ratepayers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by the Regulatory Asset Owners in relation to any such failure. [26]

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Regulatory Asset Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11)

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[25] This is in anticipation of a possible future restructuring of the distribution system. Also, this would cover any OREC-eligible customer (market participant) of IESO.

[26] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Regulatory Asset Owners.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Ratepayer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[27]

(13) **Sequestration** – If any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by the Regulatory Asset Owners or Pledgee and without limiting any other remedies available to the applying party, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Regulatory Asset Owners or Pledgee, each with respect to its Regulatory Asset.

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by the Regulatory Asset Owner.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute an existing, present property right and interest consisting, collectively, of the following rights and interests of a Regulatory Asset Owner in the following (without duplication):

a. the right of a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts;

[27] Consider whether it makes sense to create a “deemed collection” payment obligation on Electricity Distributors to the extent a Ratepayer reduces its payment of Transition Charges, despite this language, and same for Electricity Distributor Remittances and IESO Remittances.

b. the right to impose, bill, invoice, collect and receive Transition Charges from Ratepayers, including the right to determine the amount of Transition Charges in accordance with this Part;

c. the right to enforce the obligations and indebtedness of each Ratepayer to pay the Transition Charges charged to the Ratepayer from time to time in accordance with Article 2, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 4;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 4;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province [or any

consent requirement applicable to a Disposition that may arise by contract or by operation of any applicable law of the Province], a Disposition by a Regulatory Asset Owner made under the Financing Plan pursuant to a Disposition Document shall be permitted and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Absolute Assignee a valid property right and interest in, to and under the Regulatory Asset (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.][28]

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Pledge that may arise by contract or by operation of any applicable law of the Province], a Pledge by a Regulatory Asset Owner may be made to secure any Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the Regulatory Asset in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

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[28] Consider if helpful to investors, or delete.

(5) **Perfection and Priority of Pledges** - Any Pledge made by a Regulatory Asset Owner in respect of a Funding Obligation incurred under the Financing Plan shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset that are subject to such a Pledge that are received by the Regulatory Asset Owner shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected, without any physical delivery thereof, registration of any financing statement with respect thereto pursuant to the [PPSA] or any other further act.[29] A Pledge shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the Regulatory Asset subject to the Pledge unless the Pledgee has otherwise agreed in writing. Any Pledgee shall have a perfected security interest in Transition Charge Collections or other related proceeds that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. [A Pledgee shall cause a financing statement to be filed in respect of a Pledge on the basis that the Regulatory Asset is "intangible" property, for informational purposes only under the [PPSA].

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's right and interest in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective [and joint] basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.[30]

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[29] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

[30] This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.

Article 7 – Establishment of the Fair Allocation Plan[31]

(1) **Adoption of the Fair Allocation Plan** – The [Minister of Energy][32] may by written order designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Part, [except if amended, amended and restated or terminated by a further written order issued by the Minister of Energy in compliance with Section •].

(2) **Principles and Parameters**[33] – A Fair Allocation Plan shall seek to allocate Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that the Minister of Energy, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters[34]:

1. Unrecovered Transition Costs should be allocated over a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts.

2. The Fair Allocation Plan should specify the Reference Periods (e.g., 6 month periods), for the purpose of identifying applicable Ratepayer Groups and allocating among them responsibility to bear the Unrecovered Transition Costs on a relative basis over time.

3. The share of Unrecovered Transition Costs allocable to a particular Ratepayer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the Ratepayer Group over such Reference Period.

4. The estimated Unrecovered Transition Costs to be allocated to a Ratepayer Group and any future Ratepayer Group at a particular time should not exceed the estimated value of the Related Generating Assets based on their remaining useful lives or terms, measured in respect of the period following such particular time.

5. No future Ratepayer Group should bear an unreasonably disproportionate share of the Unrecovered Transition Costs. Except in exceptional circumstances or in

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31 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current Power Contracts and not invest in extending service lives to secure further power contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

32 Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).

33 Consideration will be given as to whether these details should be included in the Regulation.

34 We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just illustrative to advance a discussion among the stakeholders.

the case of any backward-looking adjustment made as contemplated in 7, below, the share of the Unrecovered Transition Costs to be allocated under a Fair Allocation Plan to any future Ratepayer Group should have regard to [Insert formula if a year-over-year maximum amount is determined to be appropriate][35].

6. A reasonable estimate of the rate of inflation should be applied to equate the relative values of the nominal amount of Unrecovered Transition Costs to be allocable to Ratepayer Groups over time.

7. Backward-looking adjustments to a Fair Allocation Plan may be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative.

(3) Attribution Methodology – The Fair Allocation Plan [shall] specify an objective methodology (the "Attribution Methodology") for the purposes of allocating the Period Transition Charges across all of the Ratepayers of a particular Ratepayer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that are considered by the Minister of Energy to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) [Confirmation][Review] of the Fair Allocation Plan – [OEB?][36]

Article 8 – The Financing Plan[37]

(1) Power to Prepare and Implement the Financing Plan – In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall prepare and propose the adoption of a Financing Plan. If the Administrative Agent is unwilling or unable to prepare and propose the adoption of a Financing Plan, the Minister of Energy may by written order designate one or more other persons to prepare and implement such a Financing Plan.

(2) Required Terms and Conditions of the Financing Plan – The Financing Plan shall establish the basis for funding decisions that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan. The Financing Plan shall be consistent with the principles, parameters, requirements and conditions set forth in Schedule 3 and such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation].

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[35] Consider if a quantitative limit needs to be included in the legislation.

[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.

[37] Consideration will be given as to whether these details should be included in the Regulation.

(3) **Power to Review and Approve the Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the Financing Plan, and submit a revised Financing Plan to the designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]

(4) **Approval of Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the Financing Plan based solely on whether the Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the Financing Plan, then such Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the Financing Plan or otherwise fails to approve the Financing Plan, then the Administrative Agent shall re-submit the Financing Plan with such amendments as the Administrative Agent shall consider necessary for the Financing Plan to be approved by the OEB.[38]

(5) **Consistency with the Fair Allocation Plan** - Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the Financing Plan shall require the

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(6) Establishment of Special Purpose Entities – If the implementation of the Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]

(7) Obligation to Apply IESO Remittances – The Administrative Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset Owners, or otherwise in respect of or as proceeds from the Regulatory Asset shall only be applied or used to pay Finance Amounts when they are due and payable and for no other purpose.[39]

(8) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, and Alternative Collection Agent, the Administrative Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Part or expressly pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(9) Incurrences are Binding – Despite any failure to adhere to the Financing Plan or to comply with any requirement of this Part, all amounts payable or becoming due and payable by or on behalf of a Regulatory Asset Owner under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this Part, including in determining the amount of Transition Charges, despite any impairment or defect resulting from such failure.

Article 9 – Compliance Matters[40]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Part, the [OEB] shall have the right, jurisdiction, power and authority to examine the books and records of any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation.

(2) Power to Investigate Compliance and Impose Regulatory Sanctions - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the

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[39] We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.

[40] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article is under consideration.

Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the [OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].

(3) **[Other Rating Settings** – When setting other rates for or in respect of any person who is or may become obligated or have duties that arise under this Part, including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking into account the collection by or attribution to such person of administrative or servicing fees in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.][42]

Article 10 – Undertaking of the Lieutenant Governor in Council[43]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Ratepayers to pay Transition Charges or impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, either directly or indirectly[,including through the introduction of any bill or the passing of any legislation or regulation]. The amount of Transition Charges determined hereunder shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council[,including through the introduction of any bill or the passing of any legislation or regulation].

(2) **Undertaking and Agreement** – The Lieutenant Governor in Council shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or, except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, collected and remitted for the benefit of the Regulatory Asset Owners, including any Absolute Assignee from time to time, and any Pledgee from time to time[,including through the introduction of any bill or the passing of any legislation or regulation].

[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners

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[41] Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.

[42] OPG has indicated that the risks and cost consequences to OPG of being an Administrative Agent or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for OPG. To be discussed.]

[43] Under consideration.

shall be fully compensated for any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.[44]]

(3) References to the Undertaking and Agreement – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 11 – Regulations

Regulations may be made under this Part for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with a Regulatory Asset Owner incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Costs; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Part;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Part [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by a Regulatory Asset Owner of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 12- Miscellaneous[45]

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[44] Requested by Torys. For discussion.

[45] OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Part and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Part shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Part shall be required with respect to the actions to be taken in compliance with this Part, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Part or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Part, if any provision of this Part is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Part that is taken by any person who is or may become obligated or have duties that arise under this Part and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Part or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Part are intended to be severable and that the Legislature would have enacted this Part even if any Article, Section, paragraph or subparagraph of this Part held to be unconstitutional or invalid had not been included in this Part.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3

Principles, Parameters, Requirements and Conditions for Establishing the Financing Plan

The Financing Plan shall have regard to the following principles, parameters, requirements and conditions:[***Consider others.***]

(1) the Financing Plan shall, in respect of each Reference Period, describe the allocations of Unrecovered Transition Costs to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of the Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describe alternative funding arrangements considered to be suitable for the purpose of funding the estimated Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset Owners for such purpose;

(4) such Funding Obligations shall reflect quantities, maturities, payment obligations, prepayment or redemption rights and such other features so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of each Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

(5) the Financing Plan shall reflect the outcome of a financial model that incorporates the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Ratepayer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the Financing Plan may permit the OEB to check progress against the model from time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***]

(6) the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Regulatory Asset Owners will require committed access to short term liquidity to cover estimated Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate a Regulatory Asset Owner to repay

an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Administrative Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations shall not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Administrative Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Administrative Agent shall cause the applicable Regulatory Asset Owner to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Administrative Agent will select counterparties under any transaction to be entered into by a Regulatory Asset Owner, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Administrative Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Administrative Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the Funding Shortfall from time to time on a basis that is consistent with the allocations of Unrecovered Transition Costs to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Administrative Agent and other agents and service providers to the Regulatory Asset Owners may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by a Regulatory Asset Owner, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) a description of each special purchase entity that will purchase the Regulatory Asset from the IESO, including proposed capitalization, governance, and restrictions on their powers and activities having regard to the parameters in Schedule 4; and

(16) the basis on which any Pledge may be given or effected.

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Schedule 4

Creation of any Special Purpose Entity to become a Regulatory Asset Owner]

(1) Powers and Abilities:

a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;

b. Each Regulatory Asset Owner shall be authorized to:

i. incur the Funding Obligations contemplated by a Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;

ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a Financing Plan and for administrative services; and

iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;

c. So long as any Funding Obligations contemplated under a Financing Plan are outstanding, a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;

d. a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a Financing Plan;

e. a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a Financing Plan; and

f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a Financing Plan.

(2) Governance of Regulatory Asset Owner – A Regulatory Asset Owner shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]

a. **[Number of trustees]**

b. **[Replacement of trustees; vacancies; appointment of successors]**

c. **[Removal of trustees for neglect of duty or misconduct]**

d. **[Quorum and meetings]**

e. **[Fiduciary duty]**

f. **[Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]**

g. **[Delegation of powers and duties to administrative agents]**

h. **[Delegation of powers and duties to administrative agents]**

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"Fair Hydro" – Part V.2

Article 1 – Purpose[1]

IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and ~~future~~ quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as to encourage the ~~long-term~~ construction and development of facilities for the purpose of ~~generating~~long-term operation and generation of electricity using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer and feed in tariff programs (the "Green Generation Initiative"). [The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers. The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging ~~ratepayers~~consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).

Each month, the IESO determines the Global Adjustment payable by consumers for the consumption of electricity in the Province. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts exceed the market price for electricity for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from the Green Generation Initiative, on the one hand, and the costs of the Green Generation Initiative borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect principles and parameters that can be applied from time to time in order to establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative across present and future Ratepayers. A plan to allocate such costs and benefits equitably across present and future Ratepayers may be developed based on those principles and parameters (a "Fair Allocation Plan").

If a Fair Allocation Plan determines that the equitable allocation of the Global Adjustment to the Ratepayers of a particular time period in respect of the Power Contracts should be reduced below the amount otherwise determined, the amount payable by such Ratepayers to Electricity Distributors in respect of such period, and in turn by the Electricity Distributors to the IESO, would, in the aggregate, be less than the amount payable by the IESO to the Generators under the Power Contracts in respect of such period. If the difference is greater than any net Power

[1] Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.

[2] Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.

Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period, IESO will need to obtain funding from another source, which could include funding from third party sources operating in public and private capital markets. If a funding obligation is incurred in order to enable the IESO to cover a funding shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs will be incurred and may become payable in one or more other periods.

It will be necessary to provide a reliable and committed source of cash flows to enable IESO to repay such funding obligations and to pay related funding costs with certainty when the funding obligations become due and payable. This Part imposes irrevocable and non-bypassable financial obligations of Ratepayers to pay amounts incurred in respect of such funding obligations when they become due and payable~~. Such~~ and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations ~~will constitute property rights and interests~~, which will take the form of the Regulatory Asset contemplated in this Part and will constitute property rights and interests. The Regulatory Asset will be sold and absolutely assigned and will belong to one or more newly created financing entities, which in turn will finance their purchase of such Regulatory Asset by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf the financing entities by an administrative agent (initially OPG), under the ~~Treasury~~Financing Plan contemplated in this Part. The ~~Treasury~~Financing Plan will seek to reasonably match the payment obligations arising under funding obligations and borne by the future Ratepayers of the period in which such payment obligations become due, with the costs and benefits of the Green Generation Initiative ~~attributed~~charged to such future Ratepayers under the Fair Allocation Plan.

The purpose of this Part is to establish the basis upon which intergenerational fairness can be achieved by ~~attributing~~charging the costs and benefits of the Green Generation Initiative to present and future Ratepayers on an equitable and cost effective basis.

Article 2 - Definitions

In this Part:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner ~~assigns, transfers, conveys, sells, contributes, sets over, exchanges or disposes all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the transferring Regulatory Asset Owner's right, title and interest in, to and in respect of the Regulatory Asset~~effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Administrative Agent whose records shall be determinative for the purposes of this Part in the absence of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any

[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]

applicable tax amounts) that are or become payable by the ~~Regulated~~Regulatory Asset ~~Owner~~Owners during the Reference Period and that were incurred or committed to directly or indirectly in connection with the incurrence of Funding Obligations under the ~~Treasury~~Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Administrative Agent on behalf of, ~~the~~a Regulatory Asset Owner under the ~~Treasury~~Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on ~~the~~a Regulatory Asset Owner or incurred by on behalf of ~~the~~a Regulatory Asset Owner under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Administrative Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the ~~Treasury~~Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative ~~Invoicing Agent~~Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of ~~the~~a Regulatory Asset Owner; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager of director fees; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (~~m~~o) any rating agency fees; and (~~n~~p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith for recovery and payment under the ~~Treasury~~Financing Plan.

"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the ~~Treasury~~Financing Plan in compliance with the requirements set out in Schedule 2.

"Allocation Factor" means, in respect of a Ratepayer for a Reference Period, the number (expressed as a percentage) determined in respect of the Ratepayer by [IESO] based on the application of the Attribution Methodology in respect of the Reference Period.[4]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners.

"Alternative ~~Invoicing Agent~~Servicer" means a person appointed under Section 4(8) to assume the ~~invoicing and other activities of any Electricity Distributor~~obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners.

[4] Consider basing this on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those would be identified and rolled into the True-Up.

"Attribution Methodology"[15] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to the individual Ratepayers of the applicable Ratepayer Group based on its Allocation Factor.

"Bypass Charge" means [To be developed].[6]

"Collected Amount Adjustment" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Servicer or the Administrative Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[27]

~~["Consumer Base" means, for a Reference Period, the total number of Ratepayers in the Ratepayer Group determined by the Administrative Agent as of the [30th] day immediately preceding the first day of the Reference Period.]~~

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the distributor ~~of electricity to residences located in~~licensed by the OEB in respect of such Service Area.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the

[15] A key question will be how the overall costs will be spread across the rate base. For ~~simplicity, overall costs could be spread across the rate base based on a *per capita* (ratepayer) concept. This would generally mean that all consumers who are invoiced in a month would pay the same Transition Charge, and to the extent that the invoiced amounts (i.e., the Transition Charges billed for a month) are higher or lower than the actual costs, due to a change in the Consumer Base, that difference should (among other things) be reflected in the True-Up calculation for the relevant reference period (see "Collected Amount Adjustment"). To the extent that a different allocation method is adopted (such as based on actual electricity use by individual consumers), the divisor for the Transition Charge will need to be modified~~example, the allocation may be volumetric or not, or some combination of a flat amount and a volumetric charge. This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion.

[6] Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.

[27] This would pick up adjustments based on actual collection experience, changes in the Consumer Base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by an Electricity Distributor (or in its stead, an Alternative ~~Invoicing Agent)~~Servicer) or by the Servicer in respect of electricity charges and related services and amounts incurred, assessed or ~~attributed~~charged in respect of ~~a residence located~~connectivity to a distribution network in the Electricity Distributor's designated Service Area.

"Estimate" means, in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Administrative Agent having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Part in the absence of a manifest calculation error.

"Fair Allocation Plan" [has the meaning given in Article ~~1.~~1].

"Finance Amount" means, in respect of a Reference Period, the sum (without duplication) of the following amounts for the Reference Period: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset ~~Owner~~Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset ~~Owner~~Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the ~~Treasury~~Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the ~~Treasury~~Financing Plan.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8]

"Financing Plan" means the written plan [prepared by the Administrative Agent] in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) the establishment and operation of any Financing Entity; and (i) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.

"Funding Costs" means, for a Reference Period, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset Owner during the Reference Period in respect of all Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation, exceeds (b) the aggregate of all Finance Receipts for the Reference Period.

"Funding Obligation" means each payment obligation (including principal, interest and other financing charges, indebtedness, payment obligations arising under or in respect of derivatives, payment obligations owing to service providers, administrative agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies and all taxes payable in connection with the foregoing) incurred by or on behalf of ~~the~~a Regulatory Asset Owner under the ~~Treasury~~Financing Plan in order to fund a Funding Shortfall for a Reference Period, including any Refinancing of another such payment obligation.[9]

"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.[10]

[8] OPG has suggested that the legislation provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

[9] OPG has asked whether this should include IESO finance arrangements.

[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.

"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.[11]

"Generator" means a generator of electricity that is subject to [this Act][12].

"Global Adjustment" means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.[13]

"Green Generation Initiative" [has the meaning given in Article ~~1.~~1].

"IESO" means the Independent Electricity System Operator created pursuant to [insert].

"IESO Applied Surplus" means, for a Reference Period, the lesser of (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference ~~Periods~~Period, exceeds (ii) the GA Power Contract Contribution for the Reference Period and (b) the IESO Unapplied Surplus on the last day of the immediately preceding Reference Period.

"IESO Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators ~~to IESO~~ under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.

"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators ~~to IESO~~ under all Power Contracts for the Reference Period.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset ~~Owner~~Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].

[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]

[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.

[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").

"IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.

"Period Transition Charge" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Pledge" means a lien, mortgage, charge~~, right of set-off~~ or security interest granted to or in favour of a Pledgee by a Regulatory Asset Owner in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Regulatory Asset.

"Pledgee" means a person to whom ~~[or for whose benefit]~~ a Regulatory Asset Owner grants a Pledge.

"Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.[~~3~~14]

"Province" means the Province of Ontario.

"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.[~~4~~15]

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

[~~3~~14] Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?

[~~4~~15] Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owner to redeem, prepay or repurchase a Funding Obligation, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation Implementation Date] to (and including) June 30, 2017, (b) each six month period commencing [~~July~~May 1st and ~~January~~November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Refinancing" means that a Funding Obligation is repaid or repurchased for cancellation by or on behalf of ~~the Regulated~~a Regulatory Asset Owner by applying the net proceeds obtained by the ~~Regulated~~Regulatory Asset Owner incurring one or more other Funding Obligations.

"Regulatory Asset" means the property right and interest described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Document.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for ~~IESO~~the Servicer, any bank account into which ~~IESO~~the Servicer deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means~~, collectively,~~ each of (a) IESO, to the extent that it has retained any ownership interest in, to or under the Regulatory Asset and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Asset, ~~which~~and "Regulatory Asset Owners" means collectively all of the Regulatory Asset Owners, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.

"Related Rights" means, with respect to a Regulatory Asset Owner's Regulatory Asset, all rights of any kind (whether in tort, contract or otherwise) ~~of the Regulatory Asset Owner~~ that attach or are attendant or incidental to any of the other property rights or interests that comprise ~~the~~such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent in accordance with any Funding Obligation or, if no such day is specified in relation to any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a Finance Reserve Deposit) of, all or a portion of the amount advanced to the Regulatory Asset Owner under a Funding Obligation.

"Repayment" means a payment by a Regulatory Asset Owner made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is ~~[permitted]~~licensed to distribute electricity ~~to residences~~ in accordance with [this Act[17]].

"Servicer" means [To be determined], as agent for and on behalf of the Regulatory Asset Owner [To be determined – collective invoicing agent, and consider expanding].

"Settlement Date" means the [last Business Day of any month].

~~"Treasury Plan" means the written plan prepared by the Administrative Agent in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; and (h) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.~~

"Transition Charge" means, for a Ratepayer in respect of a Reference Period, the sum of (a) [one-sixth] of the Period Transition Charge~~, [divided by the Consumer Base[5]]~~, multiplied by its Allocation Factor and (b) any Bypass Charge charged to the Ratepayer in respect of the Reference Period.

"Transition Charge Collection" means any amount received or deemed by this Part to have been received upon the collection of a Transition Charge paid by or on behalf of a Ratepayer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Administrative Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

[17] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.
~~[5] See footnote 1, above.~~

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 10(2).

"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].[18]

Article 3 – Transition Charges

(1) **Ratepayer Obligation to Pay a Transition Charge** – Each Ratepayer shall pay each Transition Charge ~~attributed~~charged to it ~~and specified as such~~ in any Electricity Invoice issued to such Ratepayer by its Electricity Distributor or by an Alternative ~~Invoicing Agent~~Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Ratepayers** – Until paid, a Transition Charge ~~attributed~~charged to a Ratepayer ~~and recorded~~ in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Ratepayer to the Regulatory Asset ~~Owner~~Owners (each with respect to its Regulatory Asset). Such indebtedness shall constitute a single and separate debt obligation owing by the Ratepayer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Ratepayer under the Electricity Invoice or otherwise.[19]

(3) **No Set-Off or Reduction** – A Ratepayer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Ratepayer by its Electricity Distributor, ~~the~~any Regulatory Asset Owner or any other person.

(4) **Allocation of Ratepayer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Ratepayer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

[18] Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.

[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation. Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis for a market-based credit decision.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the ~~Treasury~~Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the ~~Treasury~~Financing Plan or as a result of amendments to the ~~Treasury~~Financing Plan made in accordance with Section 8(3)) are deemed to be irrevocable, final and effective without any further action, in the absence of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable whether or not the related Funding Obligation was properly incurred under the ~~Treasury~~Financing Plan. In no case shall a Funding Obligation incurred under the ~~Treasury~~Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) **[Anti-avoidance; No-by-pass** – Transition Charges ~~attributed~~charged to a Ratepayer in respect of any Finance Amount incurred under with the ~~Treasury~~Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative ~~Invoicing Agent~~Servicer shall, as an agent of the Regulatory Asset ~~Owner~~Owners, specify the Transition Charge to be ~~attributed~~charged to a Ratepayer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative ~~Invoicing Agent~~Servicer to the Ratepayer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be ~~deemed to have been imposed on and billed to~~binding on the applicable Ratepayer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Regulatory Asset Owner (or the Administrative Agent on its behalf) shall provide the Servicer with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. Not later than one month prior to the first day of a Reference Period, ~~[IESO]~~[6]the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~[7]Servicer[21] shall calculate the Period Transition Charge applicable to the Reference Period~~.~~ based on the calculations and information set forth in such written notices received from the Regulatory Asset Owners, which shall be determinative in the absence of manifest calculation error or misstatement.

[20] Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.

~~[6] IESO's role will need to be discussed. Not sure if this mechanism is an IESO role or perhaps it's an OEB role. That will need to be discussed with the stakeholders. Currently, the rates for this class of customer are established by the OEB every six months having regard to the projections etc., of GA, and any variances from the prior period. This might end up fitting into that regime (although presumably we wouldn't want it to be built into the rate like GA is today- ie., it would be a separate line item). This section will also need to catch "bypass" customers.~~

[7][21] Should this be a designated government official, rather than an agent appointed by investors?

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, ~~[IESO]~~the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~Servicer shall apply the Attribution Methodology to determine the ~~Transition Charges to be attributed to the Ratepayers~~Allocation Factor for each Ratepayer of the applicable Ratepayer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, ~~[IESO]~~the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~Servicer shall inform each Electricity Distributor and if applicable any Alternative ~~Invoicing Agent~~Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Ratepayer of the applicable Ratepayer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge ~~attributed~~charged to a Ratepayer by ~~[IESO]~~the Servicer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, in the absence of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **~~Successors of~~ IESO Successor** – Any ~~successor of~~ IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative ~~Invoicing Agent~~Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Regulatory Asset ~~Owner shall~~Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative ~~Invoicing Agent~~Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative ~~Invoicing Agent~~Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative ~~Invoicing Agent~~Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative ~~Invoicing Agent~~Servicer to perform such obligations and duties on behalf of the Regulatory Asset ~~Owner~~Owners.

(9) **Regulatory Asset ~~Owner has~~Owners have Standing** – The Regulatory Asset ~~Owner~~Owners may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative ~~Invoicing Agent~~Servicer or any other person who may be authorized to issue Electricity Invoices to Ratepayers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province [and the OEB] shall have jurisdiction over

any actions brought before it by ~~a~~the Regulatory Asset ~~Owner~~Owners in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) ~~**(10)**~~ **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor, any Alternative ~~Invoicing Agent~~Servicer or any [Alternative Collection Agent] to ensure that Transition Charges are properly ~~attributed~~charged to Ratepayers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset ~~Owner~~Owners, undertake [diligent efforts] to collect amounts owing by Ratepayers in respect of Transition Charges ~~attributed~~charged to such Ratepayers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall ~~[~~promptly~~]~~ segregate Transition Charge Collections from other payments received by it from Ratepayers and deposit such Transition Charge Collections into its Regulatory Asset Account. Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall ~~be deemed to~~ hold such amounts in trust for ~~the~~each Regulatory Asset Owner.

(3) **Electricity Distributor Remittances** – On each [applicable Remittance Date], an Electricity Distributor shall remit all Transition Charge Collections received by it from Ratepayers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset ~~Owner~~Owners, undertake [diligent][reasonable] efforts~~]~~ to accept and collect Electricity Distributor Remittances~~.~~ from Electricity Distributors and Transition Charge Collections from Ratepayers that pay their Electricity Invoices directly to the Servicer.[23]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall [promptly] segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall ~~be deemed to~~ hold such amounts in trust for ~~the~~each Regulatory Asset Owner.

[22] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

[23] Consider building this obligation into a deemed condition of licence for the IESO.

(6) **IESO Remittances** – On each [Settlement Date][24], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Regulatory Asset Owner.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **Successors of IESO** – Any successor of IESO shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[8][25], then such person shall, if requested by the Regulatory Asset ~~Owner~~Owners, be obligated to act diligently to (a) facilitate the invoicing and ~~collect~~collection of any Transition Charges applicable to Ratepayers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Ratepayers as provided in this Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d) exercise all enforcement rights of the Regulatory Asset ~~Owner~~Owners or Pledgee for the benefit of ~~the~~a Regulatory Asset Owner or Pledgee; and (e) remit any Transition Charge Collections to the Regulatory Asset Owner or Pledgee, as applicable, each in accordance with its Regulatory Asset.

(10) **Regulatory Asset ~~Owner has~~Owners have Standing** – The Regulatory Asset ~~Owner~~Owners and any Pledgee may bring actions against any Electricity Distributor, IESO, Alternative ~~Invoicing Agent~~Servicer, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Ratepayers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by ~~a~~the Regulatory Asset ~~Owner~~Owners in relation to any such failure.[26]

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Regulatory Asset ~~Owner~~Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the

[24] Consider frequency of remittances in light of rating requirements.

[8][25] This is in anticipation of a possible future restructuring of the distribution system. Also, this would cover any OREC-eligible customer (market participant) of IESO.

[26] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Regulatory Asset ~~Owner~~Owners.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of ~~the~~a Regulatory Asset Owner, ~~any~~an Absolute Assignee and ~~any~~a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Ratepayer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province ~~[~~or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~]~~[27]

(13) ~~[~~**Sequestration** – If any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by ~~a~~the Regulatory Asset ~~Owner~~Owners or Pledgee and without limiting any other remedies available to the applying party, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Regulatory Asset ~~Owner~~Owners or Pledgee~~.] [Such order shall remain in full force and effect notwithstanding any bankruptcy, reorganization, or other insolvency proceedings with respect to any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or other person or entity authorized to collect Transition Charges, as applicable.]~~, each with respect to its Regulatory Asset.

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by the Regulatory Asset Owner.

Article 6 – The Regulatory Asset

[27] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Ratepayer reduces its payment of Transition Charges, despite this language, and same for Electricity Distributor Remittances and IESO Remittances.

(1) **Composition** – The Regulatory Asset shall constitute ~~a~~an existing, present property right and interest ~~of the~~consisting, collectively, of the following rights and interests of a Regulatory Asset Owner in the following (without duplication):

a. the right of a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts;

b. the right to impose, bill, invoice, collect and receive Transition Charges from Ratepayers, including the right to determine the amount of Transition Charges in accordance with this Part;

c. ~~a.~~ the ~~present and future~~right to enforce the obligations and indebtedness of each Ratepayer to pay the Transition Charges ~~attributed~~charged to the Ratepayer from time to time in accordance with Article 2, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. ~~b.~~ the ~~present and future~~right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative ~~Invoicing Agent~~Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. ~~c.~~ the ~~present and future~~right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 4;

f. ~~d.~~ the ~~present and future~~right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to ~~accept~~collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the ~~account~~accounts of the Regulatory Asset ~~Owner~~Owners, each with respect to its Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 4;

g. ~~e.~~ the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. ~~f.~~ all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. ~~g.~~ all Related Rights; and

j. ~~h.~~ all ~~proceeds of or derived from the foregoing.~~revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments

and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

~~The~~A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, ~~attributed~~charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Disposition that may arise by contract or by operation of any applicable law of the Province], a Disposition by a Regulatory Asset Owner made under the ~~Treasury~~Financing Plan pursuant to a Disposition Document shall be permitted and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Absolute Assignee a valid property right and interest in, to and under the Regulatory Asset (or relevant portion thereof) in accordance with the terms of such Disposition ~~[~~, provided that the ~~description of Regulatory Asset in the agreement giving effect to the Disposition expressly refers to this Part]. [Other than as required by the Treasury Plan, no consent of any person shall be required to give effect to a Disposition.]~~ parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.][28]

(3) ~~**Deemed** **Perfection and Priority of Dispositions** – At the time a~~Any Disposition ~~is made, the absolute assignment of the property rights and~~of an interest in ~~the~~a Regulatory Asset ~~subject to the Disposition shall be deemed to have been and~~shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and

[28] Consider if helpful to investors, or delete.

interests acquired by the Absolute Assignee under such Disposition shall ~~have priority over~~be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Pledge that may arise by contract or by operation of any applicable law of the Province], a Pledge by a Regulatory Asset Owner may be made to secure any Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the Regulatory Asset in accordance with the terms of the Pledge~~[, provided that the description of Regulatory Asset in the agreement giving effect to the Pledge expressly refers to this Part]~~. Other than as required by the ~~Treasury~~Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) ~~**Deemed**~~ **Perfection and Priority of Pledges** - Any Pledge made by a Regulatory Asset Owner in respect of a Funding Obligation incurred under the ~~Treasury~~Financing Plan ~~shall be deemed to have been and~~ shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset that are subject to such a Pledge that are received by the Regulatory Asset Owner shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected, without any physical delivery thereof, registration of any financing statement with respect thereto pursuant to the [PPSA] or any other further act.[29] A Pledge shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the Regulatory Asset subject to the Pledge unless the Pledgee has otherwise agreed in writing. Any Pledgee shall have a perfected security interest in Transition Charge Collections or other related proceeds that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. [A Pledgee shall cause a financing statement to be filed in respect of a Pledge on the basis that the Regulatory Asset is "intangible" property, for informational purposes only under the [PPSA].

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein. In no circumstance may the specified portions of the rights

[29] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) ~~(7)~~ **Collective Action Required** – If a Regulatory Asset Owner's right and interest in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective [and joint] basis with each other Regulatory Asset Owner~~, and any agreement among all of the Regulatory Asset Owners in furtherance of such collective action shall be valid and binding on each Regulatory Asset Owner and each Absolute Assignee, Pledgee and successor of a Regulatory Asset Owner in accordance with its terms.~~ in accordance with the Collective Rights Agreement.[30]

Article 7 – Establishment of the Fair Allocation Plan[31]

(1) Adoption of the Fair Allocation Plan – The [Minister of Energy][32] may by written order designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Part, [except if amended, amended and restated or terminated by a further written order issued by the Minister of Energy ~~[~~in compliance with Section •].

(2) Principles and Parameters[33] – A Fair Allocation Plan shall seek to allocate Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that the Minister of Energy, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters~~9~~[34]:

1. Unrecovered Transition Costs should be allocated over a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts.

2. The Fair Allocation Plan should specify the Reference Periods (e.g., 6 month periods), for the purpose of identifying applicable Ratepayer Groups and allocating among them responsibility to bear the Unrecovered Transition Costs on a relative basis over time.

3. The share of Unrecovered Transition Costs allocable to a particular Ratepayer Group in respect of a Reference Period should be proportionate to a reasonable

[30] This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.

[31] The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current Power Contracts and not invest in extending service lives to secure further power contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

[32] Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).

[33] Consideration will be given as to whether these details should be included in the Regulation.

~~9~~[34] We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just il lustrative to advance a discussion among the stakeholders.

assessment of the benefits of the Green Generation Initiative to the Ratepayer Group over such Reference Period.

4. The estimated Unrecovered Transition Costs to be allocated to a Ratepayer Group and any future Ratepayer Group at a particular time should not exceed the estimated value of the Related Generating Assets based on their remaining useful lives or terms, measured in respect of the period following such particular time.

5. No future Ratepayer Group should bear an unreasonably disproportionate share of the Unrecovered Transition Costs. Except in exceptional circumstances or in the case of any backward-looking adjustment made as contemplated in 7, below, the share of the Unrecovered Transition Costs to be allocated under a Fair Allocation Plan to any future Ratepayer Group should have regard to [Insert formula if a year-over-year maximum amount is determined to be appropriate][~~10~~35] .

6. A reasonable estimate of the rate of inflation should be applied to equate the relative values of the nominal amount of Unrecovered Transition Costs to be allocable to Ratepayer Groups over time.

7. Backward-looking adjustments to a Fair Allocation Plan may be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative ~~to that Ratepayer Group over an applicable Reference Period, including to provide an abatement to one or more Ratepayer Groups to the extent that one or more earlier Ratepayer Groups are considered by the Minister of Energy to have borne an unfair share of the Unrecovered Transition Costs~~.

(3) Attribution Methodology – The Fair Allocation Plan [shall] specify an objective methodology (the "Attribution Methodology") for the purposes of allocating the Period Transition Charges across all of the Ratepayers of a particular Ratepayer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that are considered by the Minister of Energy to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation. ~~[may have regard to considerations such as their relative electricity usage rates and usage patterns; the relative geographic density of individual Ratepayer's residence *[See basis for GA allocation method for other principles]]*~~

(4) [Confirmation][Review] of the Fair Allocation Plan – [OEB?][36]

Article 8 – The ~~Treasury~~Financing Plan[37]

(1) Power to Prepare and Implement the ~~Treasury~~Financing Plan – In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall prepare and propose the adoption of a ~~Treasury~~Financing Plan. If the Administrative Agent is unwilling or unable to prepare and propose the adoption of a

[~~10~~35] Consider if a quantitative limit needs to be included in the legislation.

[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.

[37] Consideration will be given as to whether these details should be included in the Regulation.

~~Treasury~~Financing Plan, the Minister of Energy may by written order designate one or more other persons to prepare and implement such a ~~Treasury~~Financing Plan.

(2) **Required Terms and Conditions of the ~~Treasury~~Financing Plan** – The ~~Treasury~~Financing Plan shall establish the basis for funding decisions that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan. The ~~Treasury~~Financing Plan shall be consistent with the principles, parameters, requirements and conditions set forth in Schedule 3 and such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation].

(3) **Power to Review and Approve the ~~Treasury~~Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the ~~Treasury~~Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such ~~Treasury~~Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the ~~Treasury~~Financing Plan, and submit a revised ~~Treasury~~Financing Plan to the ~~**[OEB]**~~designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the ~~Treasury~~Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]

(4) **Approval of ~~Treasury~~Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the ~~Treasury~~Financing Plan based solely on whether the ~~Treasury~~Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the ~~Treasury~~Financing Plan, then such ~~Treasury~~Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the ~~Treasury~~Financing Plan or otherwise fails to approve the ~~Treasury~~Financing Plan, then the Administrative Agent shall re-submit the ~~Treasury~~Financing Plan with such amendments as the Administrative Agent shall consider necessary for the ~~Treasury~~Financing Plan to be approved by the OEB.[38]

(5) **Consistency with the Fair Allocation Plan** - Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the ~~Treasury~~Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the ~~Treasury~~Financing Plan shall require the Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(6) Establishment of Special Purpose Entities – If the implementation of the ~~Treasury~~Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the ~~Treasury~~Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]

(7) Obligation to Apply IESO Remittances – The Administrative Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners, or otherwise in respect of or as proceeds from the Regulatory Asset shall only be applied or used to pay Finance Amounts when they are due and payable and for no other purpose.~~11~~[39]

(8) Non-Recourse – The ~~Treasury~~Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative ~~Invoicing Agent~~Servicer, and Alternative Collection Agent, the Administrative Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Part or expressly pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(9) Incurrences are Binding – Despite any failure to adhere to the ~~Treasury~~Financing Plan or to comply with any requirement of this Part, all amounts payable or becoming due and payable by or on behalf of ~~the~~a Regulatory Asset Owner under or in connection with any obligation purporting to be a Funding Obligation, shall ~~be deemed to~~ be binding for the purposes of this Part, including in determining the amount of Transition Charges, despite any impairment or defect resulting from such failure.

Article 9 – Compliance Matters[40]

~~11~~[39] We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.

[40] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article is under consideration.

(1) **Right of the [OEB] to Inspect Books and Records** - For the purpose of investigating compliance with the provisions of this Part, the [OEB] shall have the right, jurisdiction, power and authority to examine the books and records of any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation.

(2) **Power to Investigate Compliance and Impose Regulatory Sanctions** - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the ~~authority~~[OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].

(3) **[Other Rating Settings** – When setting other rates for or in respect of any person who is or may become obligated or have duties that arise under this Part, including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking into account the collection by or attribution to such person of administrative or servicing fees in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.][42]

Article 10 – Undertaking of the Lieutenant Governor in Council[43]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council ~~may~~] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Ratepayers to pay Transition Charges or impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, either directly or indirectly[, including through the introduction of any bill or the passing of any legislation or regulation]. The ~~Lieutenant Governor in Council undertakes that the~~ amount of Transition Charges determined hereunder shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council[, including through the introduction of any bill or the passing of any legislation or regulation].

(2) **Undertaking and Agreement** – The Lieutenant Governor in Council ~~undertakes to and agrees with the Regulatory Asset Owner, including any Absolute Assignee from time to time, and any Pledgee from time to time, that the Lieutenant Governor in Council will~~shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or, except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, collected and remitted for the benefit of the Regulatory Asset ~~Owner~~Owners,

[41] Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.

[42] OPG has indicated that the risks and cost consequences to OPG of being an Administrative Agent or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for OPG. To be discussed.]

[43] Under consideration.

including any Absolute Assignee from time to time, and any Pledgee from time to time[,including through the introduction of any bill or the passing of any legislation or regulation].

[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners shall be fully compensated for any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.[44]]

(3) References to the Undertaking and Agreement – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 11 – Regulations

Regulations may be made under this Part for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable ~~expectations~~requirements of the Province associated with ~~any Regulated~~a Regulatory Asset Owner incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Costs; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a ~~Treasury~~Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Part;

(c) to set out reasonable ~~expectations~~requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Part [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by ~~the~~a Regulatory Asset Owner of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the ~~Treasury~~Financing Plan.

[44] Requested by Torys. For discussion.

Article 12- Miscellaneous[45]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Part and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Part shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Part shall be required with respect to the actions to be taken in compliance with this Part, including under the ~~Treasury~~Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Part or the ~~Treasury~~Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the ~~Treasury~~Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Part, if any provision of this Part is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Part that is taken by any person who is or may become obligated or have duties that arise under this Part ~~[or under any Funding Obligation]~~ and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Part or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Part are intended to be severable and that the Legislature would have enacted this Part even if any Article, Section, paragraph or subparagraph of this Part held to be unconstitutional or invalid had not been included in this Part.

[45] OPG would like the specific amendments related to OPG to be included in the Bill.]

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3

Principles, Parameters, Requirements and Conditions for Establishing the ~~Treasury~~Financing Plan

The ~~Treasury~~Financing Plan shall have regard to the following principles, parameters, requirements and conditions:[***Consider others.***]

(1) the ~~Treasury~~Financing Plan shall, in respect of each Reference Period, describe the allocations of Unrecovered Transition Costs to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of the Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describe alternative funding arrangements considered to be suitable for the purpose of funding the estimated Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset ~~Owner~~Owners for such purpose;

(4) such Funding Obligations shall reflect quantities, maturities, payment obligations, prepayment or redemption rights and such other features so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of each Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

(5) the ~~Treasury~~Financing Plan shall reflect the outcome of a financial model that incorporates the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges ~~attributed~~charged to a hypothetical Ratepayer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the ~~Treasury~~Financing Plan may permit the OEB to check progress against the model from time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the ~~Treasury~~Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***]

(6) the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Regulatory Asset ~~Owner[s]~~Owners will require committed access to short term liquidity to cover estimated Funding Shortfalls prior to incurring fixed

term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the ~~Treasury~~Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Administrative Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations shall not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the ~~Treasury~~Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Administrative Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Administrative Agent shall cause the ~~[~~applicable~~]~~ Regulatory Asset Owner to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Administrative Agent will select counterparties under any transaction to be entered into by a Regulatory Asset Owner, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Administrative Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Administrative Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and

other Funding Costs, and the need to maintain a stable funding platform to finance the Funding Shortfall from time to time on a basis that is consistent with the allocations of Unrecovered Transition Costs to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Administrative Agent and other agents and service providers to the Regulatory Asset ~~Owner[s]~~Owners may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by a Regulatory Asset Owner, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) a description of each special purchase entity that will purchase the Regulatory Asset from the IESO, including proposed capitalization, governance, and restrictions on their powers and activities having regard to the parameters in Schedule 4; and

(16) the basis on which any Pledge may be given or effected.

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Schedule 4

Creation of any Special Purpose Entity to become a Regulatory Asset Owner]

(1) Powers and Abilities:

a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;

b. Each Regulatory Asset Owner shall be authorized to:

i. incur the Funding Obligations contemplated by a ~~Treasury~~Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;

ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a ~~Treasury~~Financing Plan and for administrative services; and

iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;

c. So long as any Funding Obligations contemplated under a ~~Treasury~~Financing Plan are outstanding, ~~the~~a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;

d. ~~the~~a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a ~~Treasury~~Financing Plan;

e. ~~the~~a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a ~~Treasury~~Financing Plan; and

f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a ~~Treasury~~Financing Plan.

(2) Governance of Regulatory Asset Owner – ~~The~~A Regulatory Asset Owner ~~shall~~ shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]

a. **[Number of trustees]**

b. **[Replacement of trustees; vacancies; appointment of successors]**

c. **[Removal of trustees for neglect of duty or misconduct]**

d. **[Quorum and meetings]**

e. **[Fiduciary duty]**

f. **[Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]**

g. **[Delegation of powers and duties to administrative agents]**

h. **[Delegation of powers and duties to administrative agents]**

Document comparison by Workshare Compare on Friday, April 07, 2017 1:14:41 AM

Input:	
Document 1 ID	PowerDocs://TOR_2528/23107566/7
Description	TOR_2528-#23107566-v7-Part_V.2_of_the_Electricity_Act_(Fair_Hydro)
Document 2 ID	PowerDocs://TOR_2528/23107566/8
Description	TOR_2528-#23107566-v8-Part_V.2_of_the_Electricity_Act_(Fair_Hydro)
Rendering set	Standard

Legend:	
Insertion	
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Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	389
Deletions	290
Moved from	7
Moved to	7
Style change	0
Format changed	0
Total changes	693

From: Gavin He
To: Shajee Kathirgamanathan; Adam Prokop; Bruno Amara
Cc: John Kim
Subject: FW: "Fair" Legislation (Discussion Draft)
Date: Friday, April 07, 2017 11:06:45 AM
Attachments: 23107566-v8-Part V.2 of the Electricity Act (Fair Hydro).DOCX
23107566-vpdf-Part V.2 of the Electricity Act (Fair Hydro).PDF

Hi Team,

Please find attached the draft legislation for FHP.

Adam – John would the summary note to be updated based on this draft, would you be able to work on that?

Thanks,
Gavin He

From: Calwell, Carolyn (ENERGY/MEDEI/MRI) [mailto:Carolyn.Calwell@ontario.ca]
Sent: Friday, April 07, 2017 10:30 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Joseph Pau (MEDTE/MRI) <Joseph.Pau@ontario.ca>
Subject: Fw: "Fair" Legislation (Discussion Draft)

Here is the most current mark up

From: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Sent: Friday, April 7, 2017 1:22 AM
To: Feldman, Michael
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; Rehob, James (ENERGY); Alan Hibben; Shear, Dan (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON
Subject: "Fair" Legislation (Discussion Draft)

Thanks for your comments, Michael. The attached version picks up many of your, Peter's and H&W's comments. In some cases it defers consideration, pending dealer input (such as your suggestion of tracking individual, standalone Regulatory Assets per transaction; delinking the investors from the LDCs, in favour of having IESO be the main servicer; and deleting some of the US precedent language). The regulatory input included in your mark-up was particularly helpful, although not easily dealt with tonight without the Province's input, so many of those points have simply been brought forward with additional footnotes for now. The manner and extent of delegations (primarily the Financing Plan and the Fair Allocation Plan), the nature of OEB review and regulatory actions, the scope of the undertaking and other similar issues, are still under consideration by MOE. Your comments to the effect that nothing can affect a funding obligation once incurred were referenced, as I think that is a pervasive and correct idea. The ultimate location

of provisions (Part of the Electricity Act; new Act; Regulations) is still under consideration – for now it's all in this document to facilitate this group review. Finally, there are a number of "validity" type points, which arose in your mark-up and which we are still thinking about. We can discuss those further in the morning. Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

———————————

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com | Twitter | Unsubscribe

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From: Feldman, Michael [mailto:mfeldman@torys.com]
Sent: Thursday, April 06, 2017 4:26 PM
To: ASHBOURNE, STEPHEN
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Feldman, Michael; Watson, Gwen; James.Rehob@ontario.ca; Alan Hibben; 'Shear, Dan (ENERGY)'; Carolyn.Calwell@ontario.ca; O'Brian, Adam; Fitzpatrick, Michael F.
Subject: Torys Comments on Blakes Draft Legislation

All,

I am attaching our comments on the last version of the draft legislation sent to us by Blakes. Both a clean and blacklined version are attached.

This is being distributed to OPG at the same time as everyone else and so remains subject to their comments as this is very much a work in process.

We also just received comments from Hunton & Williams but in the interests of time we have not been able to include those in our mark up, but expect to be in a position to raise any of their big issues at our meeting tomorrow. Also, I will send their comments separately to Blakes.

Regards,

Michael K. Feldman

P. 416.865.7513 | F. 416.865.7380 | 1.800.505.8679

79 Wellington St. W., 30th Floor, Box 270, TD South Tower
Toronto, Ontario M5K 1N2 Canada | www.torys.com

TORYS LLP

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Preliminary Draft for Discussion Purposes Only

"Fair Hydro" – Part V.2

Article 1 – Purpose[1]

IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as to encourage the construction and development of facilities for the purpose of long-term operation and generation of electricity using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer and feed in tariff programs (the "Green Generation Initiative"). [The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers. The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).

Each month, the IESO determines the Global Adjustment payable by consumers for the consumption of electricity in the Province. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts exceed the market price for electricity for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from the Green Generation Initiative, on the one hand, and the costs of the Green Generation Initiative borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect principles and parameters that can be applied from time to time in order to establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative across present and future Ratepayers. A plan to allocate such costs and benefits equitably across present and future Ratepayers may be developed based on those principles and parameters (a "Fair Allocation Plan").

If a Fair Allocation Plan determines that the equitable allocation of the Global Adjustment to the Ratepayers of a particular time period in respect of the Power Contracts should be reduced below the amount otherwise determined, the amount payable by such Ratepayers to Electricity Distributors in respect of such period, and in turn by the Electricity Distributors to the IESO, would, in the aggregate, be less than the amount payable by the IESO to the Generators under

---

[1] Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.

[2] Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.

the Power Contracts in respect of such period. If the difference is greater than any net Power Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period, IESO will need to obtain funding from another source, which could include funding from third party sources operating in public and private capital markets. If a funding obligation is incurred in order to enable the IESO to cover a funding shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs will be incurred and may become payable in one or more other periods.

It will be necessary to provide a reliable and committed source of cash flows to enable IESO to repay such funding obligations and to pay related funding costs with certainty when the funding obligations become due and payable. This Part imposes irrevocable and non-bypassable financial obligations of Ratepayers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations, which will take the form of the Regulatory Asset contemplated in this Part and will constitute property rights and interests. The Regulatory Asset will be sold and absolutely assigned and will belong to one or more newly created financing entities, which in turn will finance their purchase of such Regulatory Asset by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf the financing entities by an administrative agent (initially OPG), under the Financing Plan contemplated in this Part. The Financing Plan will seek to reasonably match the payment obligations arising under funding obligations and borne by the future Ratepayers of the period in which such payment obligations become due, with the costs and benefits of the Green Generation Initiative charged to such future Ratepayers under the Fair Allocation Plan.

The purpose of this Part is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Ratepayers on an equitable and cost effective basis.

Article 2 - Definitions

In this Part:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Administrative Agent whose records shall be determinative for the purposes of this Part in the absence of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any

[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]

applicable tax amounts) that are or become payable by the Regulatory Asset Owners during the Reference Period and that were incurred or committed to directly or indirectly in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Administrative Agent on behalf of, a Regulatory Asset Owner under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on a Regulatory Asset Owner or incurred by on behalf of a Regulatory Asset Owner under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Administrative Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of a Regulatory Asset Owner; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager of director fees; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith for recovery and payment under the Financing Plan.

"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the Financing Plan in compliance with the requirements set out in Schedule 2.

"Allocation Factor" means, in respect of a Ratepayer for a Reference Period, the number (expressed as a percentage) determined in respect of the Ratepayer by [IESO] based on the application of the Attribution Methodology in respect of the Reference Period.[4]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Attribution Methodology"[5] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to the individual Ratepayers of the applicable Ratepayer Group based on its Allocation Factor.

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[4] Consider basing this on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those would be identified and rolled into the True-Up.

"Bypass Charge" means [To be developed].[6]

"Collected Amount Adjustment" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Servicer or the Administrative Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[7]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the distributor licensed by the OEB in respect of such Service Area.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by an Electricity Distributor (or in its stead, an Alternative Servicer) or by the Servicer in respect of electricity charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area.

"Estimate" means, in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of

---

[5] A key question will be how the overall costs will be spread across the rate base. For example, the allocation may be volumetric or not, or some combination of a flat amount and a volumetric charge. This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion.

[6] Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.

[7] This would pick up adjustments based on actual collection experience, changes in the Consumer Base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

such costs, expenses or payments determined by the Administrative Agent having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Part in the absence of a manifest calculation error.

"Fair Allocation Plan" [has the meaning given in Article 1].

"Finance Amount" means, in respect of a Reference Period, the sum (without duplication) of the following amounts for the Reference Period: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8]

"Financing Plan" means the written plan [prepared by the Administrative Agent] in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be

[8] OPG has suggested that the legislation provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) the establishment and operation of any Financing Entity; and (i) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.

"Funding Costs" means, for a Reference Period, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset Owner during the Reference Period in respect of all Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation, exceeds (b) the aggregate of all Finance Receipts for the Reference Period.

"Funding Obligation" means each payment obligation (including principal, interest and other financing charges, indebtedness, payment obligations arising under or in respect of derivatives, payment obligations owing to service providers, administrative agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies and all taxes payable in connection with the foregoing) incurred by or on behalf of a Regulatory Asset Owner under the Financing Plan in order to fund a Funding Shortfall for a Reference Period, including any Refinancing of another such payment obligation.[9]

"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.[10]

"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.[11]

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[9] OPG has asked whether this should include IESO finance arrangements.

[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.

[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]

"Generator" means a generator of electricity that is subject to [this Act][12].

"Global Adjustment" means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.[13]

"Green Generation Initiative" [has the meaning given in Article 1].

"IESO" means the Independent Electricity System Operator created pursuant to [insert].

"IESO Applied Surplus" means, for a Reference Period, the lesser of (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Period, exceeds (ii) the GA Power Contract Contribution for the Reference Period and (b) the IESO Unapplied Surplus on the last day of the immediately preceding Reference Period.

"IESO Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.

"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].

"IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods

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[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.

[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").

occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.

"Period Transition Charge" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Pledge" means a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by a Regulatory Asset Owner in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Regulatory Asset.

"Pledgee" means a person to whom a Regulatory Asset Owner grants a Pledge.

"Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.[14]

"Province" means the Province of Ontario.

"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.[15]

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

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[14] Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?

[15] Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owner to redeem, prepay or repurchase a Funding Obligation, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation Implementation Date] to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Refinancing" means that a Funding Obligation is repaid or repurchased for cancellation by or on behalf of a Regulatory Asset Owner by applying the net proceeds obtained by the Regulatory Asset Owner incurring one or more other Funding Obligations.

"Regulatory Asset" means the property right and interest described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Document.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which the Servicer deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, to the extent that it has retained any ownership interest in, to or under the Regulatory Asset and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Asset, and "Regulatory Asset Owners" means collectively all of the Regulatory Asset Owners, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.

"Related Rights" means, with respect to a Regulatory Asset Owner's Regulatory Asset, all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent in accordance with any Funding Obligation or, if no such day is specified in relation to any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a Finance Reserve Deposit) of, all or a portion of the amount advanced to the Regulatory Asset Owner under a Funding Obligation.

"Repayment" means a payment by a Regulatory Asset Owner made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with [this Act[17]].

"Servicer" means [To be determined], as agent for and on behalf of the Regulatory Asset Owner [To be determined – collective invoicing agent, and consider expanding].

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Ratepayer in respect of a Reference Period, the sum of (a) [one-sixth] of the Period Transition Charge multiplied by its Allocation Factor and (b) any Bypass Charge charged to the Ratepayer in respect of the Reference Period.

"Transition Charge Collection" means any amount received or deemed by this Part to have been received upon the collection of a Transition Charge paid by or on behalf of a Ratepayer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Administrative Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 10(2).

"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].[18]

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[17] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.

[18] Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.

Article 3 – Transition Charges

(1) **Ratepayer Obligation to Pay a Transition Charge** – Each Ratepayer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Ratepayer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Ratepayers** – Until paid, a Transition Charge charged to a Ratepayer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Ratepayer to the Regulatory Asset Owners (each with respect to its Regulatory Asset). Such indebtedness shall constitute a single and separate debt obligation owing by the Ratepayer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Ratepayer under the Electricity Invoice or otherwise.[19]

(3) **No Set-Off or Reduction** – A Ratepayer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Ratepayer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of Ratepayer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Ratepayer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 8(3)) are deemed to be irrevocable, final and effective without any further action, in the absence of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan

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[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation. Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis for a market-based credit decision.

applicable at the time such payments are due and payable whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) **[Anti-avoidance; No-by-pass** – Transition Charges charged to a Ratepayer in respect of any Finance Amount incurred under with the Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Ratepayer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the Ratepayer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Ratepayer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Regulatory Asset Owner (or the Administrative Agent on its behalf) shall provide the Servicer with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. Not later than one month prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer[21] shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the Regulatory Asset Owners, which shall be determinative in the absence of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer shall apply the Attribution Methodology to determine the Allocation Factor for each Ratepayer of the applicable Ratepayer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the Servicer or if applicable the Alternative Servicer shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Ratepayer of the applicable Ratepayer Group who has a billing address in the Electricity Distributor's Service Area.

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[20] Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.

[21] Should this be a designated government official, rather than an agent appointed by investors?

(5) **Adjustments** – The amount of any Transition Charge charged to a Ratepayer by the Servicer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, in the absence of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Regulatory Asset Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **Regulatory Asset Owners have Standing** – The Regulatory Asset Owners may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Ratepayers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by the Regulatory Asset Owners in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor, any Alternative Servicer or any [Alternative Collection Agent] to ensure that

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[22] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

Transition Charges are properly charged to Ratepayers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent efforts] to collect amounts owing by Ratepayers in respect of Transition Charges charged to such Ratepayers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Ratepayers and deposit such Transition Charge Collections into its Regulatory Asset Account. Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for each Regulatory Asset Owner.

(3) **Electricity Distributor Remittances** – On each [applicable Remittance Date], an Electricity Distributor shall remit all Transition Charge Collections received by it from Ratepayers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Ratepayers that pay their Electricity Invoices directly to the Servicer.[23]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall [promptly] segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for each Regulatory Asset Owner.

(6) **IESO Remittances** – On each [Settlement Date][24], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Regulatory Asset Owner.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to

[23] Consider building this obligation into a deemed condition of licence for the IESO.

[24] Consider frequency of remittances in light of rating requirements.

the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **Successors of IESO** – Any successor of IESO shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[25], then such person shall, if requested by the Regulatory Asset Owners, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Ratepayers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Ratepayers as provided in this Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d) exercise all enforcement rights of the Regulatory Asset Owners or Pledgee for the benefit of a Regulatory Asset Owner or Pledgee; and (e) remit any Transition Charge Collections to the Regulatory Asset Owner or Pledgee, as applicable, each in accordance with its Regulatory Asset.

(10) **Regulatory Asset Owners have Standing** – The Regulatory Asset Owners and any Pledgee may bring actions against any Electricity Distributor, IESO, Alternative Servicer, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Ratepayers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by the Regulatory Asset Owners in relation to any such failure. [26]

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Regulatory Asset Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11)

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[25] This is in anticipation of a possible future restructuring of the distribution system. Also, this would cover any OREC-eligible customer (market participant) of IESO.

[26] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Regulatory Asset Owners.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Ratepayer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[27]

(13) **Sequestration** – If any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by the Regulatory Asset Owners or Pledgee and without limiting any other remedies available to the applying party, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Regulatory Asset Owners or Pledgee, each with respect to its Regulatory Asset.

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by the Regulatory Asset Owner.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute an existing, present property right and interest consisting, collectively, of the following rights and interests of a Regulatory Asset Owner in the following (without duplication):

a. the right of a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts;

[27] Consider whether it makes sense to create a “deemed collection” payment obligation on Electricity Distributors to the extent a Ratepayer reduces its payment of Transition Charges, despite this language, and same for Electricity Distributor Remittances and IESO Remittances.

b. the right to impose, bill, invoice, collect and receive Transition Charges from Ratepayers, including the right to determine the amount of Transition Charges in accordance with this Part;

c. the right to enforce the obligations and indebtedness of each Ratepayer to pay the Transition Charges charged to the Ratepayer from time to time in accordance with Article 2, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 4;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 4;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province [or any

consent requirement applicable to a Disposition that may arise by contract or by operation of any applicable law of the Province], a Disposition by a Regulatory Asset Owner made under the Financing Plan pursuant to a Disposition Document shall be permitted and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Absolute Assignee a valid property right and interest in, to and under the Regulatory Asset (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.][28]

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Pledge that may arise by contract or by operation of any applicable law of the Province], a Pledge by a Regulatory Asset Owner may be made to secure any Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the Regulatory Asset in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

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[28] Consider if helpful to investors, or delete.

(5) **Perfection and Priority of Pledges** - Any Pledge made by a Regulatory Asset Owner in respect of a Funding Obligation incurred under the Financing Plan shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset that are subject to such a Pledge that are received by the Regulatory Asset Owner shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected, without any physical delivery thereof, registration of any financing statement with respect thereto pursuant to the [PPSA] or any other further act.[29] A Pledge shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the Regulatory Asset subject to the Pledge unless the Pledgee has otherwise agreed in writing. Any Pledgee shall have a perfected security interest in Transition Charge Collections or other related proceeds that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. [A Pledgee shall cause a financing statement to be filed in respect of a Pledge on the basis that the Regulatory Asset is "intangible" property, for informational purposes only under the [PPSA].

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's right and interest in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective [and joint] basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.[30]

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[29] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

[30] This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.

Article 7 – Establishment of the Fair Allocation Plan[31]

(1) **Adoption of the Fair Allocation Plan** – The [Minister of Energy][32] may by written order designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Part, [except if amended, amended and restated or terminated by a further written order issued by the Minister of Energy in compliance with Section •].

(2) **Principles and Parameters**[33] – A Fair Allocation Plan shall seek to allocate Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that the Minister of Energy, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters[34]:

1. Unrecovered Transition Costs should be allocated over a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts.

2. The Fair Allocation Plan should specify the Reference Periods (e.g., 6 month periods), for the purpose of identifying applicable Ratepayer Groups and allocating among them responsibility to bear the Unrecovered Transition Costs on a relative basis over time.

3. The share of Unrecovered Transition Costs allocable to a particular Ratepayer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the Ratepayer Group over such Reference Period.

4. The estimated Unrecovered Transition Costs to be allocated to a Ratepayer Group and any future Ratepayer Group at a particular time should not exceed the estimated value of the Related Generating Assets based on their remaining useful lives or terms, measured in respect of the period following such particular time.

5. No future Ratepayer Group should bear an unreasonably disproportionate share of the Unrecovered Transition Costs. Except in exceptional circumstances or in

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31 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current Power Contracts and not invest in extending service lives to secure further power contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

32 Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).

33 Consideration will be given as to whether these details should be included in the Regulation.

34 We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just illustrative to advance a discussion among the stakeholders.

the case of any backward-looking adjustment made as contemplated in 7, below, the share of the Unrecovered Transition Costs to be allocated under a Fair Allocation Plan to any future Ratepayer Group should have regard to [Insert formula if a year-over-year maximum amount is determined to be appropriate][35].

6. A reasonable estimate of the rate of inflation should be applied to equate the relative values of the nominal amount of Unrecovered Transition Costs to be allocable to Ratepayer Groups over time.

7. Backward-looking adjustments to a Fair Allocation Plan may be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative.

(3) Attribution Methodology – The Fair Allocation Plan [shall] specify an objective methodology (the "Attribution Methodology") for the purposes of allocating the Period Transition Charges across all of the Ratepayers of a particular Ratepayer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that are considered by the Minister of Energy to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) [Confirmation][Review] of the Fair Allocation Plan – [OEB?][36]

Article 8 – The Financing Plan[37]

(1) Power to Prepare and Implement the Financing Plan – In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall prepare and propose the adoption of a Financing Plan. If the Administrative Agent is unwilling or unable to prepare and propose the adoption of a Financing Plan, the Minister of Energy may by written order designate one or more other persons to prepare and implement such a Financing Plan.

(2) Required Terms and Conditions of the Financing Plan – The Financing Plan shall establish the basis for funding decisions that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan. The Financing Plan shall be consistent with the principles, parameters, requirements and conditions set forth in Schedule 3 and such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation].

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[35] Consider if a quantitative limit needs to be included in the legislation.

[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.

[37] Consideration will be given as to whether these details should be included in the Regulation.

(3) **Power to Review and Approve the Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the Financing Plan, and submit a revised Financing Plan to the designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]

(4) **Approval of Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the Financing Plan based solely on whether the Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the Financing Plan, then such Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the Financing Plan or otherwise fails to approve the Financing Plan, then the Administrative Agent shall re-submit the Financing Plan with such amendments as the Administrative Agent shall consider necessary for the Financing Plan to be approved by the OEB.[38]

(5) **Consistency with the Fair Allocation Plan** - Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the Financing Plan shall require the

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(6) Establishment of Special Purpose Entities – If the implementation of the Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]

(7) Obligation to Apply IESO Remittances – The Administrative Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset Owners, or otherwise in respect of or as proceeds from the Regulatory Asset shall only be applied or used to pay Finance Amounts when they are due and payable and for no other purpose.[39]

(8) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, and Alternative Collection Agent, the Administrative Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Part or expressly pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(9) Incurrences are Binding – Despite any failure to adhere to the Financing Plan or to comply with any requirement of this Part, all amounts payable or becoming due and payable by or on behalf of a Regulatory Asset Owner under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this Part, including in determining the amount of Transition Charges, despite any impairment or defect resulting from such failure.

Article 9 – Compliance Matters[40]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Part, the [OEB] shall have the right, jurisdiction, power and authority to examine the books and records of any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation.

(2) Power to Investigate Compliance and Impose Regulatory Sanctions - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the

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[39] We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.

[40] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article is under consideration.

Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the [OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].

(3) **[Other Rating Settings** – When setting other rates for or in respect of any person who is or may become obligated or have duties that arise under this Part, including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking into account the collection by or attribution to such person of administrative or servicing fees in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.][42]

Article 10 – Undertaking of the Lieutenant Governor in Council[43]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Ratepayers to pay Transition Charges or impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, either directly or indirectly[,including through the introduction of any bill or the passing of any legislation or regulation]. The amount of Transition Charges determined hereunder shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council[,including through the introduction of any bill or the passing of any legislation or regulation].

(2) **Undertaking and Agreement** – The Lieutenant Governor in Council shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or, except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, collected and remitted for the benefit of the Regulatory Asset Owners, including any Absolute Assignee from time to time, and any Pledgee from time to time[,including through the introduction of any bill or the passing of any legislation or regulation].

[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners

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[41] Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.

[42] OPG has indicated that the risks and cost consequences to OPG of being an Administrative Agent or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for OPG. To be discussed.]

[43] Under consideration.

shall be fully compensated for any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.[44]]

(3) References to the Undertaking and Agreement – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 11 – Regulations

Regulations may be made under this Part for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with a Regulatory Asset Owner incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Costs; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Part;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Part [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by a Regulatory Asset Owner of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 12- Miscellaneous[45]

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[44] Requested by Torys. For discussion.

[45] OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Part and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Part shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Part shall be required with respect to the actions to be taken in compliance with this Part, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Part or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Part, if any provision of this Part is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Part that is taken by any person who is or may become obligated or have duties that arise under this Part and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Part or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Part are intended to be severable and that the Legislature would have enacted this Part even if any Article, Section, paragraph or subparagraph of this Part held to be unconstitutional or invalid had not been included in this Part.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3

Principles, Parameters, Requirements and Conditions for Establishing the Financing Plan

The Financing Plan shall have regard to the following principles, parameters, requirements and conditions:[***Consider others.***]

(1) the Financing Plan shall, in respect of each Reference Period, describe the allocations of Unrecovered Transition Costs to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of the Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describe alternative funding arrangements considered to be suitable for the purpose of funding the estimated Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset Owners for such purpose;

(4) such Funding Obligations shall reflect quantities, maturities, payment obligations, prepayment or redemption rights and such other features so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of each Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

(5) the Financing Plan shall reflect the outcome of a financial model that incorporates the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Ratepayer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the Financing Plan may permit the OEB to check progress against the model from time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***]

(6) the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Regulatory Asset Owners will require committed access to short term liquidity to cover estimated Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate a Regulatory Asset Owner to repay

an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Administrative Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations shall not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Administrative Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Administrative Agent shall cause the applicable Regulatory Asset Owner to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Administrative Agent will select counterparties under any transaction to be entered into by a Regulatory Asset Owner, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Administrative Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Administrative Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the Funding Shortfall from time to time on a basis that is consistent with the allocations of Unrecovered Transition Costs to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Administrative Agent and other agents and service providers to the Regulatory Asset Owners may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by a Regulatory Asset Owner, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) a description of each special purchase entity that will purchase the Regulatory Asset from the IESO, including proposed capitalization, governance, and restrictions on their powers and activities having regard to the parameters in Schedule 4; and

(16) the basis on which any Pledge may be given or effected.

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Schedule 4

Creation of any Special Purpose Entity to become a Regulatory Asset Owner]

(1) Powers and Abilities:

a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;

b. Each Regulatory Asset Owner shall be authorized to:

i. incur the Funding Obligations contemplated by a Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;

ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a Financing Plan and for administrative services; and

iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;

c. So long as any Funding Obligations contemplated under a Financing Plan are outstanding, a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;

d. a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a Financing Plan;

e. a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a Financing Plan; and

f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a Financing Plan.

(2) Governance of Regulatory Asset Owner – A Regulatory Asset Owner shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]

a. **[Number of trustees]**

b. **[Replacement of trustees; vacancies; appointment of successors]**

c. **[Removal of trustees for neglect of duty or misconduct]**

d. **[Quorum and meetings]**

e. **[Fiduciary duty]**

f. **[Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]**

g. **[Delegation of powers and duties to administrative agents]**

h. **[Delegation of powers and duties to administrative agents]**

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"Fair Hydro" – Part V.2

Article 1 – Purpose[1]

IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and ~~future~~ quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as to encourage the ~~long-term~~ construction and development of facilities for the purpose of ~~generating~~long-term operation and generation of electricity using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer and feed in tariff programs (the "Green Generation Initiative"). [The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers. The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging ~~ratepayers~~consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).

Each month, the IESO determines the Global Adjustment payable by consumers for the consumption of electricity in the Province. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts exceed the market price for electricity for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from the Green Generation Initiative, on the one hand, and the costs of the Green Generation Initiative borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect principles and parameters that can be applied from time to time in order to establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative across present and future Ratepayers. A plan to allocate such costs and benefits equitably across present and future Ratepayers may be developed based on those principles and parameters (a "Fair Allocation Plan").

If a Fair Allocation Plan determines that the equitable allocation of the Global Adjustment to the Ratepayers of a particular time period in respect of the Power Contracts should be reduced below the amount otherwise determined, the amount payable by such Ratepayers to Electricity Distributors in respect of such period, and in turn by the Electricity Distributors to the IESO, would, in the aggregate, be less than the amount payable by the IESO to the Generators under the Power Contracts in respect of such period. If the difference is greater than any net Power

[1] Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.

[2] Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.

Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period, IESO will need to obtain funding from another source, which could include funding from third party sources operating in public and private capital markets. If a funding obligation is incurred in order to enable the IESO to cover a funding shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs will be incurred and may become payable in one or more other periods.

It will be necessary to provide a reliable and committed source of cash flows to enable IESO to repay such funding obligations and to pay related funding costs with certainty when the funding obligations become due and payable. This Part imposes irrevocable and non-bypassable financial obligations of Ratepayers to pay amounts incurred in respect of such funding obligations when they become due and payable~~. Such~~ and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations ~~will constitute property rights and interests~~, which will take the form of the Regulatory Asset contemplated in this Part and will constitute property rights and interests. The Regulatory Asset will be sold and absolutely assigned and will belong to one or more newly created financing entities, which in turn will finance their purchase of such Regulatory Asset by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf the financing entities by an administrative agent (initially OPG), under the ~~Treasury~~Financing Plan contemplated in this Part. The ~~Treasury~~Financing Plan will seek to reasonably match the payment obligations arising under funding obligations and borne by the future Ratepayers of the period in which such payment obligations become due, with the costs and benefits of the Green Generation Initiative ~~attributed~~charged to such future Ratepayers under the Fair Allocation Plan.

The purpose of this Part is to establish the basis upon which intergenerational fairness can be achieved by ~~attributing~~charging the costs and benefits of the Green Generation Initiative to present and future Ratepayers on an equitable and cost effective basis.

Article 2 - Definitions

In this Part:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner ~~assigns, transfers, conveys, sells, contributes, sets over, exchanges or disposes all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the transferring Regulatory Asset Owner's right, title and interest in, to and in respect of the Regulatory Asset~~effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Administrative Agent whose records shall be determinative for the purposes of this Part in the absence of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any

[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]

applicable tax amounts) that are or become payable by the ~~Regulated~~Regulatory Asset ~~Owner~~Owners during the Reference Period and that were incurred or committed to directly or indirectly in connection with the incurrence of Funding Obligations under the ~~Treasury~~Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Administrative Agent on behalf of, ~~the~~a Regulatory Asset Owner under the ~~Treasury~~Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on ~~the~~a Regulatory Asset Owner or incurred by on behalf of ~~the~~a Regulatory Asset Owner under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Administrative Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the ~~Treasury~~Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative ~~Invoicing Agent~~Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of ~~the~~a Regulatory Asset Owner; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager of director fees; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (~~m~~o) any rating agency fees; and (~~n~~p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith for recovery and payment under the ~~Treasury~~Financing Plan.

"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the ~~Treasury~~Financing Plan in compliance with the requirements set out in Schedule 2.

"Allocation Factor" means, in respect of a Ratepayer for a Reference Period, the number (expressed as a percentage) determined in respect of the Ratepayer by [IESO] based on the application of the Attribution Methodology in respect of the Reference Period.[4]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners.

"Alternative ~~Invoicing Agent~~Servicer" means a person appointed under Section 4(8) to assume the ~~invoicing and other activities of any Electricity Distributor~~obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners.

[4] Consider basing this on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those would be identified and rolled into the True-Up.

"Attribution Methodology"[15] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to the individual Ratepayers of the applicable Ratepayer Group based on its Allocation Factor.

"Bypass Charge" means [To be developed].[6]

"Collected Amount Adjustment" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Servicer or the Administrative Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[27]

~~["Consumer Base" means, for a Reference Period, the total number of Ratepayers in the Ratepayer Group determined by the Administrative Agent as of the [30th] day immediately preceding the first day of the Reference Period.]~~

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the distributor ~~of electricity to residences located in~~licensed by the OEB in respect of such Service Area.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the

[15] A key question will be how the overall costs will be spread across the rate base. For ~~simplicity, overall costs could be spread across the rate base based on a *per capita* (ratepayer) concept. This would generally mean that all consumers who are invoiced in a month would pay the same Transition Charge, and to the extent that the invoiced amounts (i.e., the Transition Charges billed for a month) are higher or lower than the actual costs, due to a change in the Consumer Base, that difference should (among other things) be reflected in the True-Up calculation for the relevant reference period (see "Collected Amount Adjustment"). To the extent that a different allocation method is adopted (such as based on actual electricity use by individual consumers), the divisor for the Transition Charge will need to be modified~~example, the allocation may be volumetric or not, or some combination of a flat amount and a volumetric charge. This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion.

[6] Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.

[27] This would pick up adjustments based on actual collection experience, changes in the Consumer Base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by an Electricity Distributor (or in its stead, an Alternative ~~Invoicing Agent)~~Servicer) or by the Servicer in respect of electricity charges and related services and amounts incurred, assessed or ~~attributed~~charged in respect of ~~a residence located~~connectivity to a distribution network in the Electricity Distributor's designated Service Area.

"Estimate" means, in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Administrative Agent having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Part in the absence of a manifest calculation error.

"Fair Allocation Plan" [has the meaning given in Article ~~1.~~1].

"Finance Amount" means, in respect of a Reference Period, the sum (without duplication) of the following amounts for the Reference Period: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset ~~Owner~~Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset ~~Owner~~Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the ~~Treasury~~Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the ~~Treasury~~Financing Plan.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8]

"Financing Plan" means the written plan [prepared by the Administrative Agent] in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) the establishment and operation of any Financing Entity; and (i) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.

"Funding Costs" means, for a Reference Period, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset Owner during the Reference Period in respect of all Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation, exceeds (b) the aggregate of all Finance Receipts for the Reference Period.

"Funding Obligation" means each payment obligation (including principal, interest and other financing charges, indebtedness, payment obligations arising under or in respect of derivatives, payment obligations owing to service providers, administrative agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies and all taxes payable in connection with the foregoing) incurred by or on behalf of ~~the~~a Regulatory Asset Owner under the ~~Treasury~~Financing Plan in order to fund a Funding Shortfall for a Reference Period, including any Refinancing of another such payment obligation.[9]

"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.[10]

[8] OPG has suggested that the legislation provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

[9] OPG has asked whether this should include IESO finance arrangements.

[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.

"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.[11]

"Generator" means a generator of electricity that is subject to [this Act][12].

"Global Adjustment" means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.[13]

"Green Generation Initiative" [has the meaning given in Article ~~1.~~1].

"IESO" means the Independent Electricity System Operator created pursuant to [insert].

"IESO Applied Surplus" means, for a Reference Period, the lesser of (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference ~~Periods~~Period, exceeds (ii) the GA Power Contract Contribution for the Reference Period and (b) the IESO Unapplied Surplus on the last day of the immediately preceding Reference Period.

"IESO Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators ~~to IESO~~ under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.

"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators ~~to IESO~~ under all Power Contracts for the Reference Period.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset ~~Owner~~Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].

[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]

[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.

[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").

"IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.

"Period Transition Charge" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Pledge" means a lien, mortgage, charge~~, right of set-off~~ or security interest granted to or in favour of a Pledgee by a Regulatory Asset Owner in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Regulatory Asset.

"Pledgee" means a person to whom ~~[or for whose benefit]~~ a Regulatory Asset Owner grants a Pledge.

"Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.[~~3~~14]

"Province" means the Province of Ontario.

"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.[~~4~~15]

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

[~~3~~14] Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?

[~~4~~15] Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owner to redeem, prepay or repurchase a Funding Obligation, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation Implementation Date] to (and including) June 30, 2017, (b) each six month period commencing [~~July~~May 1st and ~~January~~November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Refinancing" means that a Funding Obligation is repaid or repurchased for cancellation by or on behalf of ~~the Regulated~~a Regulatory Asset Owner by applying the net proceeds obtained by the ~~Regulated~~Regulatory Asset Owner incurring one or more other Funding Obligations.

"Regulatory Asset" means the property right and interest described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Document.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for ~~IESO~~the Servicer, any bank account into which ~~IESO~~the Servicer deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means~~, collectively,~~ each of (a) IESO, to the extent that it has retained any ownership interest in, to or under the Regulatory Asset and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Asset, ~~which~~and "Regulatory Asset Owners" means collectively all of the Regulatory Asset Owners, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.

"Related Rights" means, with respect to a Regulatory Asset Owner's Regulatory Asset, all rights of any kind (whether in tort, contract or otherwise) ~~of the Regulatory Asset Owner~~ that attach or are attendant or incidental to any of the other property rights or interests that comprise ~~the~~such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent in accordance with any Funding Obligation or, if no such day is specified in relation to any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a Finance Reserve Deposit) of, all or a portion of the amount advanced to the Regulatory Asset Owner under a Funding Obligation.

"Repayment" means a payment by a Regulatory Asset Owner made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is ~~[permitted]~~licensed to distribute electricity ~~to residences~~ in accordance with [this Act[17]].

"Servicer" means [To be determined], as agent for and on behalf of the Regulatory Asset Owner [To be determined – collective invoicing agent, and consider expanding].

"Settlement Date" means the [last Business Day of any month].

~~"Treasury Plan" means the written plan prepared by the Administrative Agent in compliance with Article 8 to set forth the basis upon which, among other things: (a) any Disposition may be made or effected; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfall, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; and (h) the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied.~~

"Transition Charge" means, for a Ratepayer in respect of a Reference Period, the sum of (a) [one-sixth] of the Period Transition Charge~~, [divided by the Consumer Base[5]]~~, multiplied by its Allocation Factor and (b) any Bypass Charge charged to the Ratepayer in respect of the Reference Period.

"Transition Charge Collection" means any amount received or deemed by this Part to have been received upon the collection of a Transition Charge paid by or on behalf of a Ratepayer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Administrative Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

[17] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.
~~[5] See footnote 1, above.~~

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 10(2).

"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].[18]

Article 3 – Transition Charges

(1) **Ratepayer Obligation to Pay a Transition Charge** – Each Ratepayer shall pay each Transition Charge ~~attributed~~charged to it ~~and specified as such~~ in any Electricity Invoice issued to such Ratepayer by its Electricity Distributor or by an Alternative ~~Invoicing Agent~~Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Ratepayers** – Until paid, a Transition Charge ~~attributed~~charged to a Ratepayer ~~and recorded~~ in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Ratepayer to the Regulatory Asset ~~Owner~~Owners (each with respect to its Regulatory Asset). Such indebtedness shall constitute a single and separate debt obligation owing by the Ratepayer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Ratepayer under the Electricity Invoice or otherwise.[19]

(3) **No Set-Off or Reduction** – A Ratepayer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Ratepayer by its Electricity Distributor, ~~the~~any Regulatory Asset Owner or any other person.

(4) **Allocation of Ratepayer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Ratepayer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

[18] Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.

[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation. Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis for a market-based credit decision.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the ~~Treasury~~Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the ~~Treasury~~Financing Plan or as a result of amendments to the ~~Treasury~~Financing Plan made in accordance with Section 8(3)) are deemed to be irrevocable, final and effective without any further action, in the absence of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable whether or not the related Funding Obligation was properly incurred under the ~~Treasury~~Financing Plan. In no case shall a Funding Obligation incurred under the ~~Treasury~~Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

(6) **[Anti-avoidance; No-by-pass** – Transition Charges ~~attributed~~charged to a Ratepayer in respect of any Finance Amount incurred under with the ~~Treasury~~Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative ~~Invoicing Agent~~Servicer shall, as an agent of the Regulatory Asset ~~Owner~~Owners, specify the Transition Charge to be ~~attributed~~charged to a Ratepayer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative ~~Invoicing Agent~~Servicer to the Ratepayer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be ~~deemed to have been imposed on and billed to~~binding on the applicable Ratepayer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Regulatory Asset Owner (or the Administrative Agent on its behalf) shall provide the Servicer with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. Not later than one month prior to the first day of a Reference Period, ~~[IESO]~~[6]the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~[7]Servicer[21] shall calculate the Period Transition Charge applicable to the Reference Period~~.~~ based on the calculations and information set forth in such written notices received from the Regulatory Asset Owners, which shall be determinative in the absence of manifest calculation error or misstatement.

[20] Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.

~~[6] IESO's role will need to be discussed. Not sure if this mechanism is an IESO role or perhaps it's an OEB role. That will need to be discussed with the stakeholders. Currently, the rates for this class of customer are established by the OEB every six months having regard to the projections etc., of GA, and any variances from the prior period. This might end up fitting into that regime (although presumably we wouldn't want it to be built into the rate like GA is today- ie., it would be a separate line item). This section will also need to catch "bypass" customers.~~

[7][21] Should this be a designated government official, rather than an agent appointed by investors?

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, ~~[IESO]~~the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~Servicer shall apply the Attribution Methodology to determine the ~~Transition Charges to be attributed to the Ratepayers~~Allocation Factor for each Ratepayer of the applicable Ratepayer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, ~~[IESO]~~the Servicer or if applicable the ~~[~~Alternative ~~Collection Agent]~~Servicer shall inform each Electricity Distributor and if applicable any Alternative ~~Invoicing Agent~~Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Ratepayer of the applicable Ratepayer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge ~~attributed~~charged to a Ratepayer by ~~[IESO]~~the Servicer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, in the absence of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **~~Successors of~~ IESO Successor** – Any ~~successor of~~ IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative ~~Invoicing Agent~~Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Regulatory Asset ~~Owner shall~~Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative ~~Invoicing Agent~~Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative ~~Invoicing Agent~~Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative ~~Invoicing Agent~~Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative ~~Invoicing Agent~~Servicer to perform such obligations and duties on behalf of the Regulatory Asset ~~Owner~~Owners.

(9) **Regulatory Asset ~~Owner has~~Owners have Standing** – The Regulatory Asset ~~Owner~~Owners may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative ~~Invoicing Agent~~Servicer or any other person who may be authorized to issue Electricity Invoices to Ratepayers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province [and the OEB] shall have jurisdiction over

any actions brought before it by ~~a~~the Regulatory Asset ~~Owner~~Owners in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) ~~**(10)**~~ **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor, any Alternative ~~Invoicing Agent~~Servicer or any [Alternative Collection Agent] to ensure that Transition Charges are properly ~~attributed~~charged to Ratepayers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset ~~Owner~~Owners, undertake [diligent efforts] to collect amounts owing by Ratepayers in respect of Transition Charges ~~attributed~~charged to such Ratepayers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall ~~[~~promptly~~]~~ segregate Transition Charge Collections from other payments received by it from Ratepayers and deposit such Transition Charge Collections into its Regulatory Asset Account. Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall ~~be deemed to~~ hold such amounts in trust for ~~the~~each Regulatory Asset Owner.

(3) **Electricity Distributor Remittances** – On each [applicable Remittance Date], an Electricity Distributor shall remit all Transition Charge Collections received by it from Ratepayers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset ~~Owner~~Owners, undertake [diligent][reasonable] efforts~~]~~ to accept and collect Electricity Distributor Remittances~~.~~ from Electricity Distributors and Transition Charge Collections from Ratepayers that pay their Electricity Invoices directly to the Servicer.[23]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall [promptly] segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall ~~be deemed to~~ hold such amounts in trust for ~~the~~each Regulatory Asset Owner.

[22] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

[23] Consider building this obligation into a deemed condition of licence for the IESO.

(6) **IESO Remittances** – On each [Settlement Date][24], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Regulatory Asset Owner.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **Successors of IESO** – Any successor of IESO shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[8][25], then such person shall, if requested by the Regulatory Asset ~~Owner~~Owners, be obligated to act diligently to (a) facilitate the invoicing and ~~collect~~collection of any Transition Charges applicable to Ratepayers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Ratepayers as provided in this Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d) exercise all enforcement rights of the Regulatory Asset ~~Owner~~Owners or Pledgee for the benefit of ~~the~~a Regulatory Asset Owner or Pledgee; and (e) remit any Transition Charge Collections to the Regulatory Asset Owner or Pledgee, as applicable, each in accordance with its Regulatory Asset.

(10) **Regulatory Asset ~~Owner has~~Owners have Standing** – The Regulatory Asset ~~Owner~~Owners and any Pledgee may bring actions against any Electricity Distributor, IESO, Alternative ~~Invoicing Agent~~Servicer, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Ratepayers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province [and the OEB] shall have jurisdiction over any actions brought before it by ~~a~~the Regulatory Asset ~~Owner~~Owners in relation to any such failure.[26]

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Regulatory Asset ~~Owner~~Owners shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the

[24] Consider frequency of remittances in light of rating requirements.

[8][25] This is in anticipation of a possible future restructuring of the distribution system. Also, this would cover any OREC-eligible customer (market participant) of IESO.

[26] Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.

collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Regulatory Asset ~~Owner~~Owners.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of ~~the~~a Regulatory Asset Owner, ~~any~~an Absolute Assignee and ~~any~~a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Ratepayer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province ~~[~~or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~]~~[27]

(13) ~~[~~**Sequestration** – If any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by ~~a~~the Regulatory Asset ~~Owner~~Owners or Pledgee and without limiting any other remedies available to the applying party, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Regulatory Asset ~~Owner~~Owners or Pledgee~~.] [Such order shall remain in full force and effect notwithstanding any bankruptcy, reorganization, or other insolvency proceedings with respect to any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or other person or entity authorized to collect Transition Charges, as applicable.]~~, each with respect to its Regulatory Asset.

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by the Regulatory Asset Owner.

Article 6 – The Regulatory Asset

[27] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Ratepayer reduces its payment of Transition Charges, despite this language, and same for Electricity Distributor Remittances and IESO Remittances.

(1) **Composition** – The Regulatory Asset shall constitute ~~a~~an existing, present property right and interest ~~of the~~consisting, collectively, of the following rights and interests of a Regulatory Asset Owner in the following (without duplication):

a. the right of a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts;

b. the right to impose, bill, invoice, collect and receive Transition Charges from Ratepayers, including the right to determine the amount of Transition Charges in accordance with this Part;

c. ~~a.~~ the ~~present and future~~right to enforce the obligations and indebtedness of each Ratepayer to pay the Transition Charges ~~attributed~~charged to the Ratepayer from time to time in accordance with Article 2, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. ~~b.~~ the ~~present and future~~right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative ~~Invoicing Agent~~Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. ~~c.~~ the ~~present and future~~right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 4;

f. ~~d.~~ the ~~present and future~~right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to ~~accept~~collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the ~~account~~accounts of the Regulatory Asset ~~Owner~~Owners, each with respect to its Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 4;

g. ~~e.~~ the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. ~~f.~~ all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. ~~g.~~ all Related Rights; and

j. ~~h.~~ all ~~proceeds of or derived from the foregoing.~~revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments

and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

~~The~~A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, ~~attributed~~charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Disposition that may arise by contract or by operation of any applicable law of the Province], a Disposition by a Regulatory Asset Owner made under the ~~Treasury~~Financing Plan pursuant to a Disposition Document shall be permitted and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Absolute Assignee a valid property right and interest in, to and under the Regulatory Asset (or relevant portion thereof) in accordance with the terms of such Disposition ~~[~~, provided that the ~~description of Regulatory Asset in the agreement giving effect to the Disposition expressly refers to this Part]. [Other than as required by the Treasury Plan, no consent of any person shall be required to give effect to a Disposition.]~~ parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.][28]

(3) ~~**Deemed** **Perfection and Priority of Dispositions** – At the time a~~Any Disposition ~~is made, the absolute assignment of the property rights and~~of an interest in ~~the~~a Regulatory Asset ~~subject to the Disposition shall be deemed to have been and~~shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and

[28] Consider if helpful to investors, or delete.

interests acquired by the Absolute Assignee under such Disposition shall ~~have priority over~~be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province [or any consent requirement applicable to a Pledge that may arise by contract or by operation of any applicable law of the Province], a Pledge by a Regulatory Asset Owner may be made to secure any Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the Regulatory Asset in accordance with the terms of the Pledge~~[, provided that the description of Regulatory Asset in the agreement giving effect to the Pledge expressly refers to this Part]~~. Other than as required by the ~~Treasury~~Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) ~~**Deemed**~~ **Perfection and Priority of Pledges** - Any Pledge made by a Regulatory Asset Owner in respect of a Funding Obligation incurred under the ~~Treasury~~Financing Plan ~~shall be deemed to have been and~~ shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset that are subject to such a Pledge that are received by the Regulatory Asset Owner shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected, without any physical delivery thereof, registration of any financing statement with respect thereto pursuant to the [PPSA] or any other further act.[29] A Pledge shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the Regulatory Asset subject to the Pledge unless the Pledgee has otherwise agreed in writing. Any Pledgee shall have a perfected security interest in Transition Charge Collections or other related proceeds that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. [A Pledgee shall cause a financing statement to be filed in respect of a Pledge on the basis that the Regulatory Asset is "intangible" property, for informational purposes only under the [PPSA].

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein. In no circumstance may the specified portions of the rights

[29] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) ~~(7)~~ **Collective Action Required** – If a Regulatory Asset Owner's right and interest in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective [and joint] basis with each other Regulatory Asset Owner~~, and any agreement among all of the Regulatory Asset Owners in furtherance of such collective action shall be valid and binding on each Regulatory Asset Owner and each Absolute Assignee, Pledgee and successor of a Regulatory Asset Owner in accordance with its terms.~~ in accordance with the Collective Rights Agreement.[30]

Article 7 – Establishment of the Fair Allocation Plan[31]

(1) Adoption of the Fair Allocation Plan – The [Minister of Energy][32] may by written order designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Part, [except if amended, amended and restated or terminated by a further written order issued by the Minister of Energy ~~[~~in compliance with Section •].

(2) Principles and Parameters[33] – A Fair Allocation Plan shall seek to allocate Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that the Minister of Energy, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters~~9~~[34]:

1. Unrecovered Transition Costs should be allocated over a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts.

2. The Fair Allocation Plan should specify the Reference Periods (e.g., 6 month periods), for the purpose of identifying applicable Ratepayer Groups and allocating among them responsibility to bear the Unrecovered Transition Costs on a relative basis over time.

3. The share of Unrecovered Transition Costs allocable to a particular Ratepayer Group in respect of a Reference Period should be proportionate to a reasonable

[30] This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.

[31] The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current Power Contracts and not invest in extending service lives to secure further power contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

[32] Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).

[33] Consideration will be given as to whether these details should be included in the Regulation.

~~9~~[34] We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just il lustrative to advance a discussion among the stakeholders.

assessment of the benefits of the Green Generation Initiative to the Ratepayer Group over such Reference Period.

4. The estimated Unrecovered Transition Costs to be allocated to a Ratepayer Group and any future Ratepayer Group at a particular time should not exceed the estimated value of the Related Generating Assets based on their remaining useful lives or terms, measured in respect of the period following such particular time.

5. No future Ratepayer Group should bear an unreasonably disproportionate share of the Unrecovered Transition Costs. Except in exceptional circumstances or in the case of any backward-looking adjustment made as contemplated in 7, below, the share of the Unrecovered Transition Costs to be allocated under a Fair Allocation Plan to any future Ratepayer Group should have regard to [Insert formula if a year-over-year maximum amount is determined to be appropriate][~~10~~35] .

6. A reasonable estimate of the rate of inflation should be applied to equate the relative values of the nominal amount of Unrecovered Transition Costs to be allocable to Ratepayer Groups over time.

7. Backward-looking adjustments to a Fair Allocation Plan may be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative ~~to that Ratepayer Group over an applicable Reference Period, including to provide an abatement to one or more Ratepayer Groups to the extent that one or more earlier Ratepayer Groups are considered by the Minister of Energy to have borne an unfair share of the Unrecovered Transition Costs~~.

(3) Attribution Methodology – The Fair Allocation Plan [shall] specify an objective methodology (the "Attribution Methodology") for the purposes of allocating the Period Transition Charges across all of the Ratepayers of a particular Ratepayer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that are considered by the Minister of Energy to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation. ~~[may have regard to considerations such as their relative electricity usage rates and usage patterns; the relative geographic density of individual Ratepayer's residence *[See basis for GA allocation method for other principles]]*~~

(4) [Confirmation][Review] of the Fair Allocation Plan – [OEB?][36]

Article 8 – The ~~Treasury~~Financing Plan[37]

(1) Power to Prepare and Implement the ~~Treasury~~Financing Plan – In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall prepare and propose the adoption of a ~~Treasury~~Financing Plan. If the Administrative Agent is unwilling or unable to prepare and propose the adoption of a

[~~10~~35] Consider if a quantitative limit needs to be included in the legislation.

[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.

[37] Consideration will be given as to whether these details should be included in the Regulation.

~~Treasury~~Financing Plan, the Minister of Energy may by written order designate one or more other persons to prepare and implement such a ~~Treasury~~Financing Plan.

(2) **Required Terms and Conditions of the ~~Treasury~~Financing Plan** – The ~~Treasury~~Financing Plan shall establish the basis for funding decisions that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan. The ~~Treasury~~Financing Plan shall be consistent with the principles, parameters, requirements and conditions set forth in Schedule 3 and such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation].

(3) **Power to Review and Approve the ~~Treasury~~Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the ~~Treasury~~Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such ~~Treasury~~Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the ~~Treasury~~Financing Plan, and submit a revised ~~Treasury~~Financing Plan to the ~~**[OEB]**~~designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the ~~Treasury~~Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]

(4) **Approval of ~~Treasury~~Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the ~~Treasury~~Financing Plan based solely on whether the ~~Treasury~~Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the ~~Treasury~~Financing Plan, then such ~~Treasury~~Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the ~~Treasury~~Financing Plan or otherwise fails to approve the ~~Treasury~~Financing Plan, then the Administrative Agent shall re-submit the ~~Treasury~~Financing Plan with such amendments as the Administrative Agent shall consider necessary for the ~~Treasury~~Financing Plan to be approved by the OEB.[38]

(5) **Consistency with the Fair Allocation Plan** - Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the ~~Treasury~~Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the ~~Treasury~~Financing Plan shall require the Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(6) Establishment of Special Purpose Entities – If the implementation of the ~~Treasury~~Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the ~~Treasury~~Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]

(7) Obligation to Apply IESO Remittances – The Administrative Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset ~~Owner~~Owners, or otherwise in respect of or as proceeds from the Regulatory Asset shall only be applied or used to pay Finance Amounts when they are due and payable and for no other purpose.~~11~~[39]

(8) Non-Recourse – The ~~Treasury~~Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative ~~Invoicing Agent~~Servicer, and Alternative Collection Agent, the Administrative Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Part or expressly pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(9) Incurrences are Binding – Despite any failure to adhere to the ~~Treasury~~Financing Plan or to comply with any requirement of this Part, all amounts payable or becoming due and payable by or on behalf of ~~the~~a Regulatory Asset Owner under or in connection with any obligation purporting to be a Funding Obligation, shall ~~be deemed to~~ be binding for the purposes of this Part, including in determining the amount of Transition Charges, despite any impairment or defect resulting from such failure.

Article 9 – Compliance Matters[40]

~~11~~[39] We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.

[40] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article is under consideration.

(1) **Right of the [OEB] to Inspect Books and Records** - For the purpose of investigating compliance with the provisions of this Part, the [OEB] shall have the right, jurisdiction, power and authority to examine the books and records of any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation.

(2) **Power to Investigate Compliance and Impose Regulatory Sanctions** - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the ~~authority~~[OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].

(3) **[Other Rating Settings** – When setting other rates for or in respect of any person who is or may become obligated or have duties that arise under this Part, including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking into account the collection by or attribution to such person of administrative or servicing fees in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.][42]

Article 10 – Undertaking of the Lieutenant Governor in Council[43]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council ~~may~~] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Ratepayers to pay Transition Charges or impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, either directly or indirectly[, including through the introduction of any bill or the passing of any legislation or regulation]. The ~~Lieutenant Governor in Council undertakes that the~~ amount of Transition Charges determined hereunder shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council[, including through the introduction of any bill or the passing of any legislation or regulation].

(2) **Undertaking and Agreement** – The Lieutenant Governor in Council ~~undertakes to and agrees with the Regulatory Asset Owner, including any Absolute Assignee from time to time, and any Pledgee from time to time, that the Lieutenant Governor in Council will~~shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or, except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, collected and remitted for the benefit of the Regulatory Asset ~~Owner~~Owners,

[41] Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.

[42] OPG has indicated that the risks and cost consequences to OPG of being an Administrative Agent or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for OPG. To be discussed.]

[43] Under consideration.

including any Absolute Assignee from time to time, and any Pledgee from time to time[,including through the introduction of any bill or the passing of any legislation or regulation].

[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners shall be fully compensated for any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.[44]]

(3) References to the Undertaking and Agreement – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 11 – Regulations

Regulations may be made under this Part for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable ~~expectations~~requirements of the Province associated with ~~any Regulated~~a Regulatory Asset Owner incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Costs; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a ~~Treasury~~Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Part;

(c) to set out reasonable ~~expectations~~requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Part [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by ~~the~~a Regulatory Asset Owner of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the ~~Treasury~~Financing Plan.

[44] Requested by Torys. For discussion.

Article 12- Miscellaneous[45]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Part and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Part shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Part shall be required with respect to the actions to be taken in compliance with this Part, including under the ~~Treasury~~Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Part or the ~~Treasury~~Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the ~~Treasury~~Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Part, if any provision of this Part is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Part that is taken by any person who is or may become obligated or have duties that arise under this Part ~~[or under any Funding Obligation]~~ and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Part or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Part are intended to be severable and that the Legislature would have enacted this Part even if any Article, Section, paragraph or subparagraph of this Part held to be unconstitutional or invalid had not been included in this Part.

[45] OPG would like the specific amendments related to OPG to be included in the Bill.]

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3

Principles, Parameters, Requirements and Conditions for Establishing the ~~Treasury~~Financing Plan

The ~~Treasury~~Financing Plan shall have regard to the following principles, parameters, requirements and conditions:[***Consider others.***]

(1) the ~~Treasury~~Financing Plan shall, in respect of each Reference Period, describe the allocations of Unrecovered Transition Costs to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of the Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describe alternative funding arrangements considered to be suitable for the purpose of funding the estimated Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset ~~Owner~~Owners for such purpose;

(4) such Funding Obligations shall reflect quantities, maturities, payment obligations, prepayment or redemption rights and such other features so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of each Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

(5) the ~~Treasury~~Financing Plan shall reflect the outcome of a financial model that incorporates the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges ~~attributed~~charged to a hypothetical Ratepayer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the ~~Treasury~~Financing Plan may permit the OEB to check progress against the model from time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the ~~Treasury~~Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***]

(6) the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Regulatory Asset ~~Owner[s]~~Owners will require committed access to short term liquidity to cover estimated Funding Shortfalls prior to incurring fixed

term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the ~~Treasury~~Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Administrative Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations shall not obligate a Regulatory Asset Owner to repay an amount in relation to a Reference Period that would have the effect of the ~~Treasury~~Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Unrecovered Transition Costs to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Administrative Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Administrative Agent shall cause the ~~[~~applicable~~]~~ Regulatory Asset Owner to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Administrative Agent will select counterparties under any transaction to be entered into by a Regulatory Asset Owner, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Administrative Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Administrative Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and

other Funding Costs, and the need to maintain a stable funding platform to finance the Funding Shortfall from time to time on a basis that is consistent with the allocations of Unrecovered Transition Costs to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Administrative Agent and other agents and service providers to the Regulatory Asset ~~Owner[s]~~Owners may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by a Regulatory Asset Owner, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) a description of each special purchase entity that will purchase the Regulatory Asset from the IESO, including proposed capitalization, governance, and restrictions on their powers and activities having regard to the parameters in Schedule 4; and

(16) the basis on which any Pledge may be given or effected.

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Preliminary Draft for Discussion Purposes Only

Schedule 4

Creation of any Special Purpose Entity to become a Regulatory Asset Owner]

(1) Powers and Abilities:

a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;

b. Each Regulatory Asset Owner shall be authorized to:

i. incur the Funding Obligations contemplated by a ~~Treasury~~Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;

ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a ~~Treasury~~Financing Plan and for administrative services; and

iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;

c. So long as any Funding Obligations contemplated under a ~~Treasury~~Financing Plan are outstanding, ~~the~~a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;

d. ~~the~~a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a ~~Treasury~~Financing Plan;

e. ~~the~~a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a ~~Treasury~~Financing Plan; and

f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a ~~Treasury~~Financing Plan.

(2) Governance of Regulatory Asset Owner – ~~The~~A Regulatory Asset Owner ~~shall~~ shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]

a. **[Number of trustees]**

b. **[Replacement of trustees; vacancies; appointment of successors]**

c. **[Removal of trustees for neglect of duty or misconduct]**

d. **[Quorum and meetings]**

e. **[Fiduciary duty]**

f. **[Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]**

g. **[Delegation of powers and duties to administrative agents]**

h. **[Delegation of powers and duties to administrative agents]**

Document comparison by Workshare Compare on Friday, April 07, 2017 1:14:41 AM

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Document 1 ID	PowerDocs://TOR_2528/23107566/7
Description	TOR_2528-#23107566-v7-Part_V.2_of_the_Electricity_Act_(Fair_Hydro)
Document 2 ID	PowerDocs://TOR_2528/23107566/8
Description	TOR_2528-#23107566-v8-Part_V.2_of_the_Electricity_Act_(Fair_Hydro)
Rendering set	Standard

Legend:	
Insertion	
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Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	389
Deletions	290
Moved from	7
Moved to	7
Style change	0
Format changed	0
Total changes	693

From: John Kim
To: Ronald Kwan
Subject: FW: equity injection at book value?
Date: Tuesday, March 21, 2017 5:27:26 PM
Attachments: image001.png

Fyi, not sure what this was about but given the level at which it went, sharing with you right away.

From: John Psinas
Sent: Tuesday, March 21, 2017 4:37 PM
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>
Cc: 'john.s.lee@opg.com' <john.s.lee@opg.com>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
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The issue of what to value the equity injection per share has come up; at book value or some other determination if there is to be a redeemable/retractable option to them, or whether it is even needed given the Province owns 100%. Can you let me know if OPG and/or MOF has any thoughts on this.

Thanks.

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14th Flr
1 Dundas St W
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416-325-8072
john.psinas@ofina.on.ca

From: Petsche, Nadine (TBS) [mailto:Nadine.Petsche@ontario.ca]
Sent: Tuesday, March 21, 2017 3:56 PM
To: John Psinas <John.Psinas@ofina.on.ca>
Cc: Bharat Patel (MOF) <Bharat.Patel3@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>
Subject: FW: equity injection at book value?

Hi John.
Please see Cindy's feedback below. I think it would be wise to include OPG in the conversation. As a minimum, you should include John Lee. Scott Nelms should likely also be involved. N

From: Veinot, Cindy (TBS)
Sent: March-21-17 3:50 PM
To: Petsche, Nadine (TBS)
Cc: Patel, Bharat (TBS)
Subject: RE: equity injection at book value?

Probably needs all parties to be involved.

At the meeting last Thursday there was a comment made that there would be a new class of shares issues as they would be redeemable/retractable -- to essentially enable repayment of the injection. We should understand where that is at re: the design of the new shares.

Cindy

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Sent: March-21-17 3:47 PM
To: Veinot, Cindy (TBS)
Cc: Patel, Bharat (TBS)
Subject: FW: equity injection at book value?

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Any advice? I'm not sure that OPCD should be giving advice on this request. Perhaps OPG should provide input. n

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Sent: March-21-17 3:43 PM
To: Petsche, Nadine (TBS)
Cc: Patel, Bharat (TBS); Kandeepan, Ken (OFA); Sakura, George (OFA); Bozinoski, Robert (OFA)
Subject: FW: equity injection at book value?

Nadine,

We would like OPCD to weigh in what to value the shares for the upcoming electricity relief equity injection. OPG has disclosed that they are authorized to issue an unlimited number of common shares without nominal or par value.

The book value appears to be $20 exactly based on the current number of shares, but we don't know if there were any previous injections that brought the BV to $20 now. Perhaps OPCD would know.

5,126 B
.256300010 B = $20

Some clarification is needed:

1) Is share price needed?
2) If so, what value is to be used? Book value, fair value, etc.

Thanks.

DESCRIPTION OF CAPITAL STRUCTURE

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To: Scott Nelms (ENERGY)
Cc: 'John.s.lee@opg.com'; Nadine Petsche (MOF); Ken Kandeepan; George Sakura; John Kim; Carlos Yep
Subject: FW: equity injection at book value?
Date: Tuesday, March 21, 2017 4:37:03 PM
Attachments: image001.png

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To: Bruno Amara
Subject: FW: equity injection at book value?
Date: Tuesday, March 21, 2017 6:33:20 PM
Attachments: image001.png

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At the meeting last Thursday there was a comment made that there would be a new class of shares issues as they would be redeemable/retractable -- to essentially enable repayment of the injection. We should understand where that is at re: the design of the new shares.

Cindy

From: Petsche, Nadine (TBS)
Sent: March-21-17 3:47 PM
To: Veinot, Cindy (TBS)
Cc: Patel, Bharat (TBS)
Subject: FW: equity injection at book value?

Cindy,
Any advice? I'm not sure that OPCD should be giving advice on this request. Perhaps OPG should provide input. n

From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: March-21-17 3:43 PM
To: Petsche, Nadine (TBS)
Cc: Patel, Bharat (TBS); Kandeepan, Ken (OFA); Sakura, George (OFA); Bozinoski, Robert (OFA)
Subject: FW: equity injection at book value?

Nadine,

We would like OPCD to weigh in what to value the shares for the upcoming electricity relief equity injection. OPG has disclosed that they are authorized to issue an unlimited number of common shares without nominal or par value.

The book value appears to be $20 exactly based on the current number of shares, but we don't know if there were any previous injections that brought the BV to $20 now. Perhaps OPCD would know.

5,126 B _____ = $20
.256300010 B

Some clarification is needed:

1) Is share price needed?
2) If so, what value is to be used? Book value, fair value, etc.

Thanks.

DESCRIPTION OF CAPITAL STRUCTURE

The authorized share capital of OPG consists of an unlimited number of common shares (the voting shares of the Company). As at December 31, 2016, OPG had 256,300,010 common shares issued and outstanding, all of which are owned directly by the Province at a stated value of $5,126 million. OPG is authorized to issue an unlimited number of common shares without nominal or par value. Holders of common shares are entitled to one vote per share at meetings of the shareholders of the Company and to receive dividends if, as, and when declared by the Board of Directors of the Company. Holders of common shares would participate, pro rata to their holding of common shares, in any distribution of the assets of the Company upon its liquidation, dissolution, or winding up. Any issue of new shares is subject to the consent of all of OPG's shareholders.

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John

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From:	John Kim
To:	John Psinas; Mike Manning; James Devine; Carlos Yep
Cc:	Francisco Chinchon; Ken Kandeepan; George Sakura; Bruno Amara; Darren Scanlan
Subject:	FW: follow up from call - OPG GA
Date:	Friday, March 24, 2017 10:44:41 AM

Hi,

Some comments from SIFB.

Thanks,

John

From: Francisco Chinchon
Sent: Friday, March 24, 2017 10:41 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: follow up from call - OPG GA

Hi John,

Just two:

1. Not sure why future BV is relevant at this point. Future BV of OPG shares would be a function of historic carrying costs, net income and dividends so not sure we need to go there at this point. Transactions between the Province and OPG have been deemed as related party transactions by OPCD so in absence of a specific rule or change in policy I'm not sure we would have to account for FMV. Also, given the Province is not taxable it should be a non-issue.

2. I'm not sure why Kaitlin thinks that OPG shares are in Energy's books (she is saying ENE holds the shares). If you check page 504 (Vol 1, 4-2) you will see that the initial $5.1B investment in OPG is under MOF. Furthermore, under the new reporting structure I understand the accountability of OPG is now with MOF although from a legal perspective the Minister of Energy remains as the sole shareholder.

Thanks,

Francisco

From: John Kim
Sent: Friday, March 24, 2017 10:19 AM

To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

Any comments?

From: John Psinas
Sent: Friday, March 24, 2017 10:15 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Bruno Amara (MOF)
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Thanks.

--John

416-325-8072

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Kaitlin

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Subject: RE: follow up from call

No worries – happy to chat – my afternoon is open so feel free to give me a call if you'd like to discuss

416.326.6343

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 12:01 PM
To: Montgomery, Kaitlin (MOF); Bruno Amara; Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi Kaitlin,

I missed this one as I was a bit under the weather last week. Will look at it this afternoon.

We may need to connect on a few things as we're interested in the approaches related to the legislation, etc.

John.

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
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To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
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Sent: March 17, 2017 11:14 AM
To: 'Bruno Amara'; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: RE: follow up from call

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If you could layer in any relevant info/thoughts that would be great.

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416.326.6343

From: Montgomery, Kaitlin (MOF)
Sent: March 16, 2017 3:16 PM

To: Bruno Amara; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
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From:	John Kim
To:	Francisco Chinchon
Subject:	FW: follow up from call - OPG GA
Date:	Friday, March 24, 2017 10:19:00 AM
Attachments:	2017 03 22 GA Financing - Equity Injection Discussion v02.docx

Any comments? This is like a…..see my IM.

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GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to finance the GA asset on a long-term will obtain financing from two sources on an ongoing basis
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from equity injections from the Province**
        - 5% from capital markets
- OPG will require equity injections on an ongoing basis in order to keep its capital structure in line, and will require flexibility in order to issues shares as needed

GA FINANCING IMPLEMENTATION TIMING:

- **April:** Proposed Legislative Changes Drafted (retroactive to May 1)
- **May 1**: GA smoothing incorporated into "RRP" rates
- **Early June:** Legislation may be passed and SPV created. OPG uses short term facility to accommodate GA asset purchase [OPG TBC]. This represents the earliest possible equity injection [OPG TBC]
- **September**:
    - SPV long-term borrowing begins and would continue

POTENTIAL PROVINCIAL PROCESS FOR EQUITY INJECTIONS

<u>Required Approvals for Equity Injection in May 2017</u>

- ENERGY would seek TB/MBC approval for equity injection up to $xxM over next three years
- Seek approval to use the Operating Asset (vote xx) [ENE CORP TBC]
- Seek appropriation for $xxM in 2017-18 and Note that the out-year requests will be included in ENE's PRRT submission

<u>Ongoing Provincial Approvals Process</u>

- **Nov/Dec**: OPG includes forecasted equity injection requirements in rolling 3-year Business Plan

- **Feb/Mar**: ENERGY seeks TB/MBC approval for equity injection/OPG issuance as part of annual Business Plan concurrence process
    - ENE would seek TB/MBC approval for authority to inject up to $xx in OPG, in exchange for up to xx shares over the next 3 year term [OPG TBC: does this satisfy requirements in articles]
    - Seek approval delegating authority to Minister of Energy to work with the Ministry of Finance to execute equity injections, working with the OFA
    - Seek approval to include the 3-year equity request in ENE's PRRT submission through the operating asset in vote xx
- **Oct/Nov**: ENE would seek appropriation for out-year funding of equity injections

<u>Ongoing Implementation Process</u>

- OPG would send a letter to the Minister of Energy requesting an equity injection of $xx, in exchange for xx shares
- If Minister approves, ENE would work with OFA to flow the money [OFA TBC: Do you need something formal to do this? How much notice do you need to flow the cash? Any other mechanical requirements we should flag?]

Further Considerations

- Share Price Determination:
    - As of December 31, 2016 OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million ($20/share book value)
    - All new issuances would be priced at the same value as existing shares ($20/share)

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Cc:	Ken Kandeepan; George Sakura
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Regards
carlos

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 12:14 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

No worries – happy to chat – my afternoon is open so feel free to give me a call if you'd like to discuss

416.326.6343

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 12:01 PM
To: Montgomery, Kaitlin (MOF); Bruno Amara; Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi Kaitlin,

I missed this one as I was a bit under the weather last week. Will look at it this afternoon.

We may need to connect on a few things as we're interested in the approaches related to the legislation, etc.

John.

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 11:46 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

Hi all – just checking in – do you think you'll have any edits to provide today? I have some further thoughts/ considerations I'd like to build in and am hoping to run our thinking up the chain (ENE/MOF) before we discuss with OPG.

Legal is also looking into timing for me so I am hoping to provide a bit more insight on that in the next turn.

Thanks,
Kaitlin

From: Montgomery, Kaitlin (MOF)
Sent: March 17, 2017 11:14 AM
To: 'Bruno Amara'; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi – This is based on my read of relevant docs so far, one meeting I attended with OPG last week and our call – I'm sure I'm missing lots but just wanted to get something in the system for us to build on.

If you could layer in any relevant info/thoughts that would be great.

Happy to chat
Kaitlin
416.326.6343

From: Montgomery, Kaitlin (MOF)
Sent: March 16, 2017 3:16 PM
To: Bruno Amara; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: follow up from call

Hey guys – I can pull a one-pager together on what I know in terms of timing/what I was thinking in terms of process (with placeholders) to share with you guys for review/input --- does that work?

Kaitlin

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to finance the GA asset on a long-term will obtain financing from two sources on an ongoing basis
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from equity injections from the Province**
        - 5% from capital markets
- OPG will require equity injections on an ongoing basis in order to keep its capital structure in line, and will require flexibility in order to issues shares as needed

GA FINANCING IMPLEMENTATION TIMING:

- **April:** Proposed Legislative Changes Drafted (retroactive to May 1)
- **May 1**: GA smoothing incorporated into "RRP" rates
- **Early June:** Legislation may be passed and SPV created. OPG uses short term facility to accommodate GA asset purchase [OPG TBC]. This represents the earliest possible equity injection [OPG TBC]
- **September**:
    - SPV long-term borrowing begins and would continue

POTENTIAL PROVINCIAL PROCESS FOR EQUITY INJECTIONS

<u>Required Approvals for Equity Injection in May 2017</u>

- ENERGY would seek TB/MBC approval for equity injection up to $xxM over next three years
- Seek approval to use the Operating Asset (vote xx) [ENE CORP TBC]
- Seek appropriation for $xxM in 2017-18 and Note that the out-year requests will be included in ENE's PRRT submission

<u>Ongoing Provincial Approvals Process</u>

- **Nov/Dec**: OPG includes forecasted equity injection requirements in rolling 3-year Business Plan

- **Feb/Mar**: ENERGY seeks TB/MBC approval for equity injection/OPG issuance as part of annual Business Plan concurrence process
    - ENE would seek TB/MBC approval for authority to inject up to $xx in OPG, in exchange for up to xx shares over the next 3 year term [OPG TBC: does this satisfy requirements in articles]
    - Seek approval delegating authority to Minister of Energy to work with the Ministry of Finance to execute equity injections, working with the OFA
    - Seek approval to include the 3-year equity request in ENE's PRRT submission through the operating asset in vote xx
- **Oct/Nov**: ENE would seek appropriation for out-year funding of equity injections

<u>Ongoing Implementation Process</u>

- OPG would send a letter to the Minister of Energy requesting an equity injection of $xx, in exchange for xx shares
- If Minister approves, ENE would work with OFA to flow the money [OFA TBC: Do you need something formal to do this? How much notice do you need to flow the cash? Any other mechanical requirements we should flag?]

Further Considerations

- Share Price Determination:
    - As of December 31, 2016 OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million ($20/share book value)
    - All new issuances would be priced at the same value as existing shares ($20/share)

From:	John Psinas
To:	Ken Kandeepan
Cc:	John Kim; Bruno Amara; Carlos Yep; George Sakura; Risa Thau
Subject:	FW: follow up from call - OPG GA
Date:	Tuesday, March 28, 2017 1:27:09 PM
Attachments:	2017 03 22 GA Financing - Equity Injection Discussion v02.docx

Ken,

At today's electricity relief working group, the question of the value of the shares came up. OPG would prefer to keep it simple and leave it at $20. When I asked about the value of the redeemable option being proposed, OPG still preferred not to factor that in, and keep it simple, especially as the equity injection is going to be monthly.

The timing is to introduce the relief program legislatively in May, with it being passed in early June.

On a monthly basis, IESO will send a notice to OPG on the amount of the purchase 5 business days before the actual injection. OPG will calculate 44% and notify us.

OPG will manage the financing shortfall over the course of the summer. The initial plan will be financing with their short term facilities, and then issue debt for long term in the Cdn money market.

When the 44% funding request comes to us every month, the thinking is capital markets will book the ticket, and then settlements and us in accounting will get involved in the normal manner.

There is another teleconference next week.

Thanks.

--John

416-325-8072

From: John Psinas
Sent: Friday, March 24, 2017 10:15 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Bruno Amara (MOF)
Cc: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

Regarding this statement

On the value of the shares-My understanding is it doesn't matter, but for simplicity I think we should keep it the same as the current shares unless anyone raises benefits/considerations otherwise

If the new shares will have a retractable/redeemable option, doesn't that option have a value to it, in addition to the $20 BV? If the equity injection were to happen every year at different amounts, a valuation of that option will have to be calculated, which will in turn revise the total BV/per share.

The value of the shares doesn't matter now, but in the future, if we were to sell the shares to the public, we would need to calculate BV in order to calculate the gain/loss. Will have to get some documentation from 20 years ago on how $20 was derived in the first place.

Thanks.

--John

416-325-8072

From: Carlos Yep
Sent: Thursday, March 23, 2017 4:26 PM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, March 23, 2017 1:37 PM
To: John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Revised version. Everything in here is up for discussion, I just wanted to share a straw man for people to react to.

Key changes relative to the last version:

- I've positioned as an ENE TB approval/appropriation request (though I haven't actually run this by ENE yet….)– they already have an operating asset, and hold the current OPG shares so I think any new shares would be held in the same place. I'm thinking about it similar to the equity injection that was done for H1 departure tax payment (ENE booked it but OFA actually flowed the funds). I've embedded within the OPG BP process for simplicity but if you think it should be on a separate track I'm happy to explore that.
- On the value of the shares-My understanding is it doesn't matter, but for simplicity I think we should keep it the same as the current shares unless anyone raises benefits/considerations otherwise

Realise you guys are still thinking this through, but if your schedule permits It would be helpful if we could regroup today/tomorrow on this so I can hear what you guys are considering and chat next

steps

Kaitlin

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 3:38 PM
To: Yep, Carlos (OFA); Montgomery, Kaitlin (MOF); Bruno Amara
Subject: RE: follow up from call

And in this working group, could we not reference the OEFC doing the equity injection pls? I've seen a few documents that refer to the OEFC but if we could avoid that going forward, that'd be appreciated.

John

From: John Kim
Sent: Tuesday, March 21, 2017 3:32 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Hi,

My understanding though it'd be good to check with accountants (assuming OPG accountants) would be that it would not matter given OPG does not have its shares trading. I think there are more technical ways of describing this but will leave at that.

On the diagram, it is my understanding that it'd be the Province.

Thanks,

John

From: Carlos Yep
Sent: Tuesday, March 21, 2017 3:20 PM
To: 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Kaitlin,
After the relevant legislation, Provincial approvals, OPG approvals ….. The funding of the Global Adjustment equity injection, will have a line on the Financing Table that feeds the Ontario Budget → and will then be incorporated on the Long Term Borrowing requirements for the Province.

-We are flexible on working with OPG on setting the required advance notice period that OPG needs

to provide the Province (Energy, OFA-Corporate and Electricity Finance, OFA Capital Markets, etc).

-Quarterly equity injections looks ok.

-OPG will need to determine who needs to sign-off on the equity injection requests.

-I don't know if OPG has any recommendations wrt how to determine how share price will be determined or if it will be a "par value" – will have to get our accountants involved as how it is booked

John or Kaitlin – the diagram has OEFC funding the equity injection – is that correct?

Regards
carlos

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: FYI
Date: Tuesday, April 25, 2017 12:55:16 PM
Attachments: TDS_v4.docx

TD Engagement – Terms of Reference (not formal)

I left the comments in. (Not to share widely pls.)

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

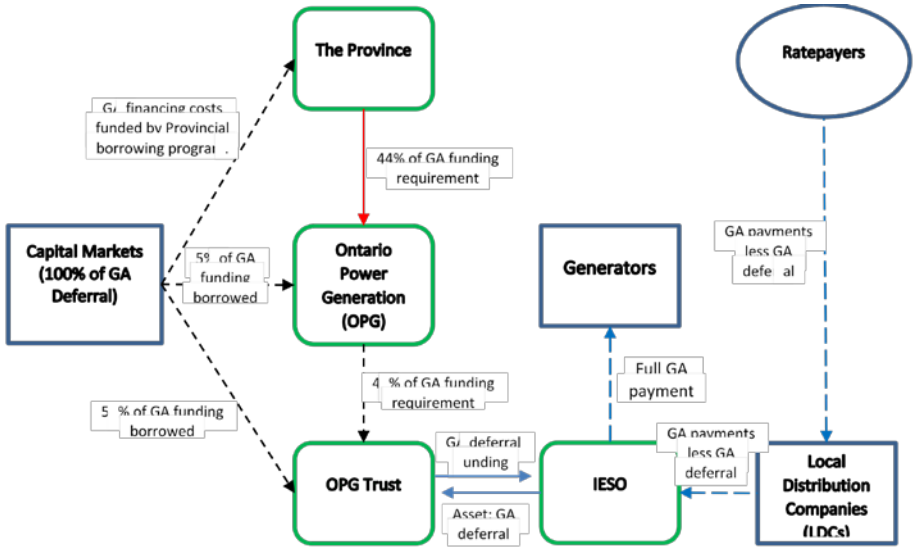
GA FINANCING – TD'S ADVICE SOUGHT ON CAPITAL CONTRIBUTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide capital ~~equity injection~~ to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

Context

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses recovery deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers versus the cost of full payment to~~in order to fully compensate~~ generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its capital

contributions ~~equity injection~~ through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the capital contributions ~~equity injection~~ from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the capital ~~money~~ provided to OPG ~~no matter if~~whether this is done as common equity or through other mechanisms, including the potential use~~d~~ of preferred shares.~~as 'equity injection' for the purpose of the GA deferral proposal.~~
- Under the current state of discussion, t~~T~~he capital contribution ~~equity injection~~ would~~ill~~ be provided on a monthly/quarterly basis to OPG by the Province.
- The capital contribution ~~equity injection~~ results in the Province, the sole shareholder of OPG receiving common shares, or another type of security, from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cash flow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the capital contribution ~~equity injection~~ the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder~~, as well as having vested legislative authority~~, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.

Commented [1]:
I suggest we delete this and have TD opine on options.

- ~~OPG c~~Could~~an~~ the structure involve issuing~~e~~ ~~preference~~ preferred shares ~~again~~ with some ~~kind~~ form of optionality for repayment. Preferredence~~e~~ shares, especially those with a specified annual dividend schedule could potentially~~will~~ ensure that the Province remain~~s~~ whole in terms of the incremental interest costs it would incur~~s~~ on the ~~equity injection~~capital contribution.

- Other factors to be considered for repayment:
  - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
  - Should the senior debt be repaid first or should repayment be on a pari-passu basis
  - OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
  - Eventually, the Province would need to have a discussion with OPG on the path forward.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in being able to recover its capital ~~getting the money back,~~ as stipulated in the GA deferral plan.
- The Province needs to be kept whole with respect to any financial cost that may arise from making and carrying forward the capital contributions.
- For regulatory purposes, there may be an interest in insuring that the capital contributions ~~equity injection is~~are considered a true equity in OPG's capital structure [TBD but still require consideration].
- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].
-

Commented [2]:
Not sure if this is needed here.

From: GRECO Clara -LAWDIV
To: John Kim; Montgomery, Kaitlin (MOF); Carlos Yep
Cc: YAO Anthea -FUNDMGMT
Subject: Fair Hydro Plan -- Equity Injection/OPG Share Purchase
Date: Tuesday, March 14, 2017 11:50:41 AM

Hello everyone
I'm hoping to have a quick kick off call this week amongst ourselves to discuss developing the work plan for this portion of the plan. OPG will need some input from the Province in order to structure the equity injection process on our side.
I will send a meeting invite for later this week with a brief agenda of some of the items we will need to consider.
Hope to talk to you all then.

Regards,
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

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From: Nelms, Scott (MOF)
To: Bruno Amara; Robin Lewis (MOF); John Kim
Subject: Fair Hydro Plan PILs amendments
Date: Wednesday, April 19, 2017 8:39:40 PM
Attachments: 23344385_4 (003).docx

Further to my last email, here is a set of proposed amendments focused on the PILs issue.

Sent with BlackBerry Work (www.blackberry.com)

Version 2

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

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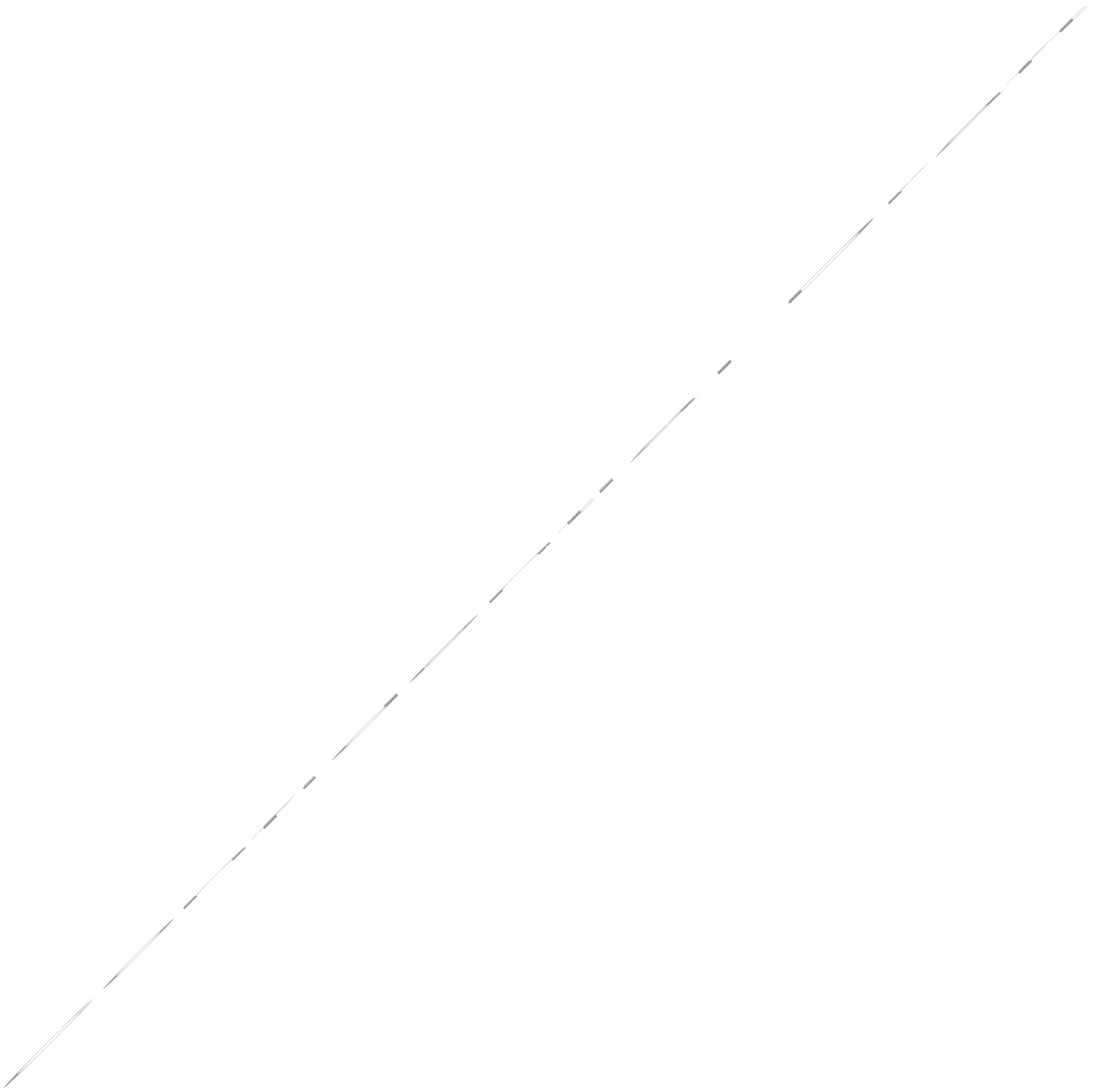
2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.



From:	Bruno Amara
To:	Ronald Kwan
Cc:	John Kim; Emily Kerr; Gavin He
Subject:	Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:11:23 PM
Attachments:	FHP programs_v2.docx Cabinet Submission - Electricity Price Mitigation.pdf

---

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund		200	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**200**	**665**	**753**	**829**	**892**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet

Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

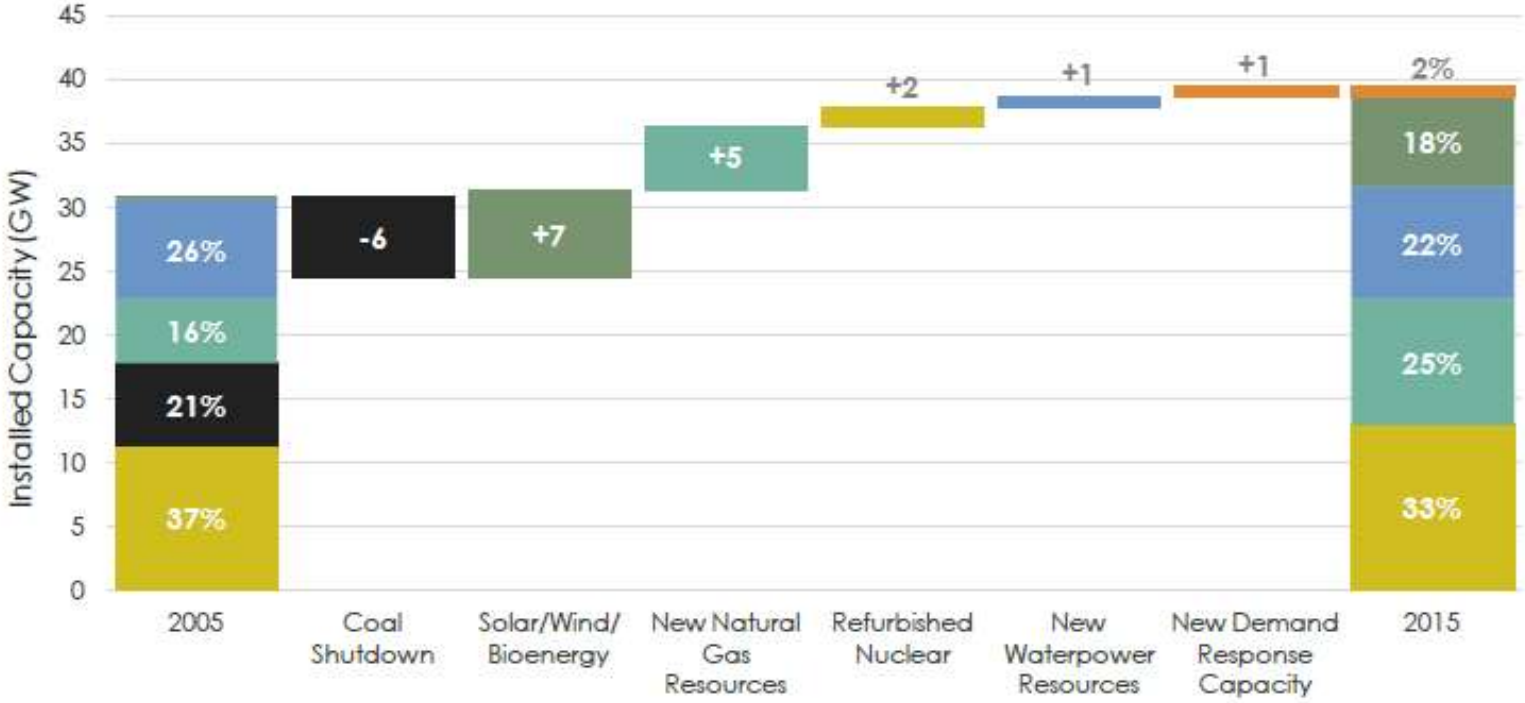
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



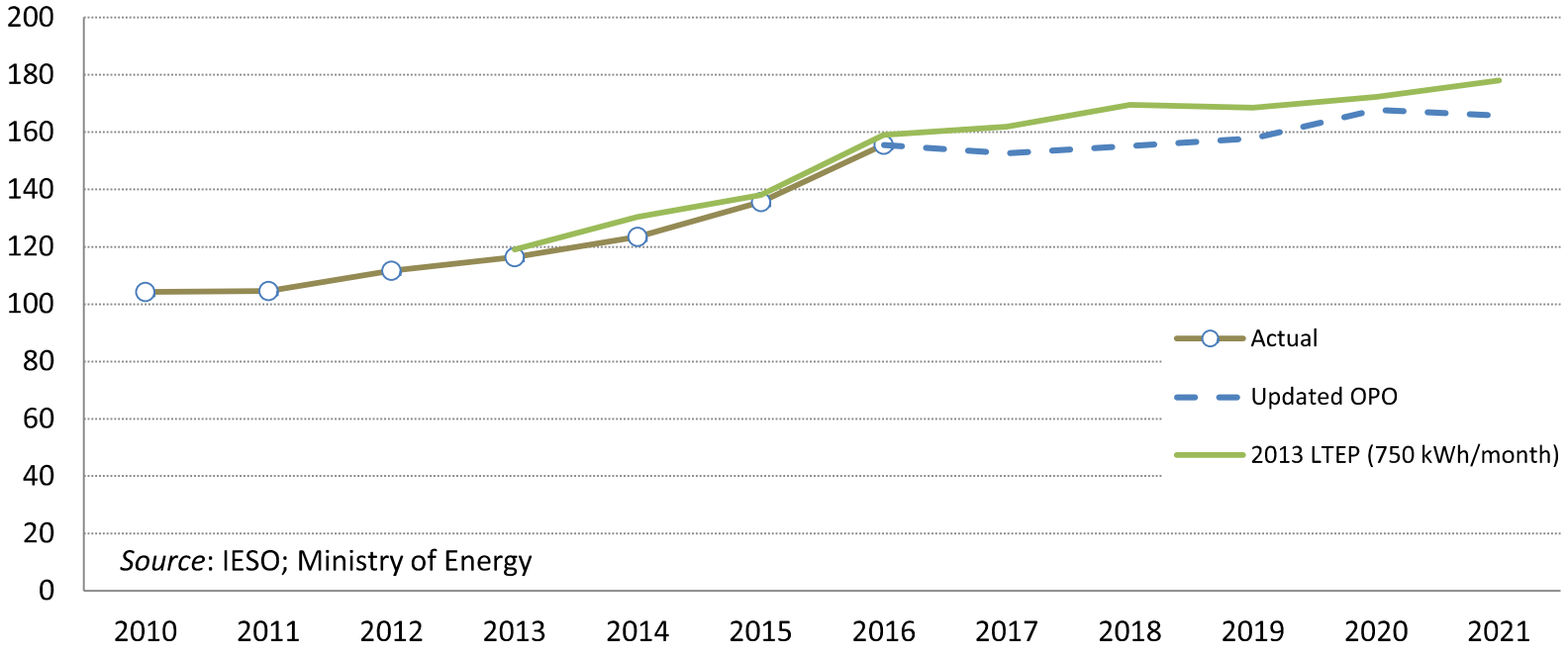
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

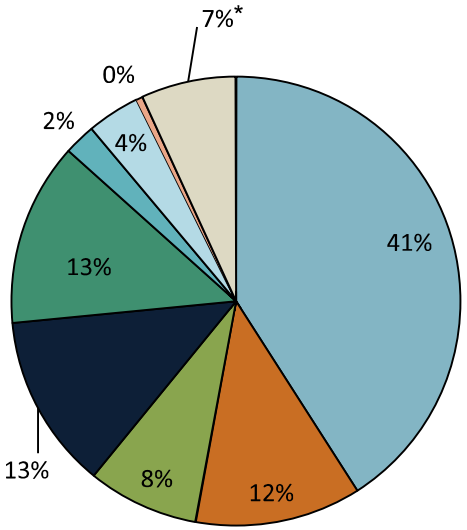
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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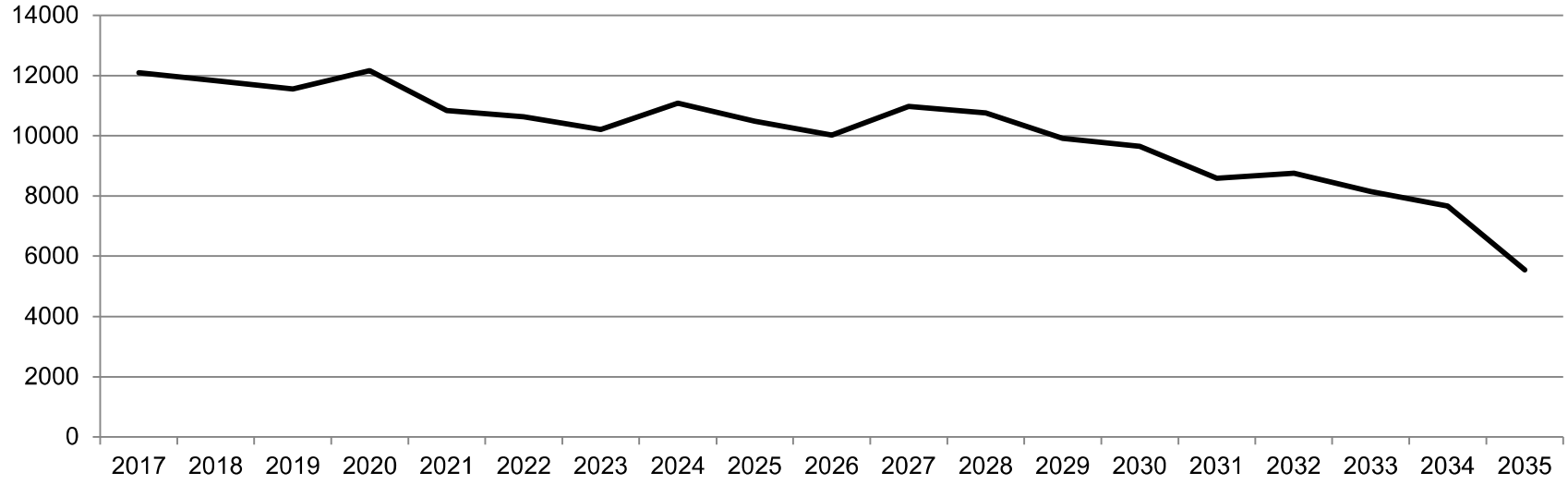
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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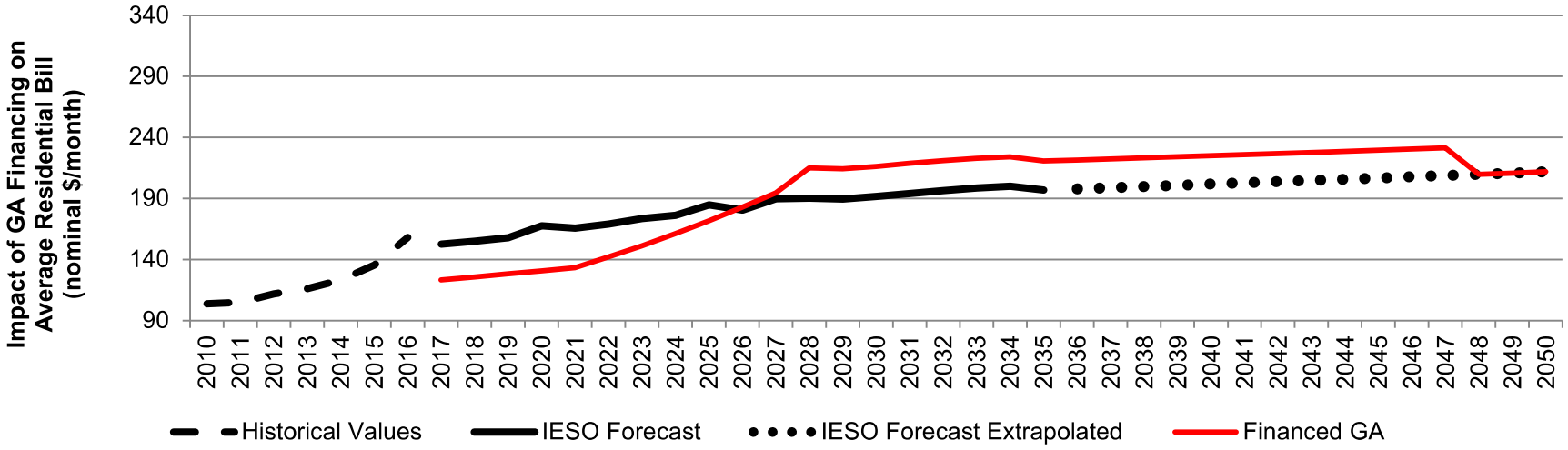
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

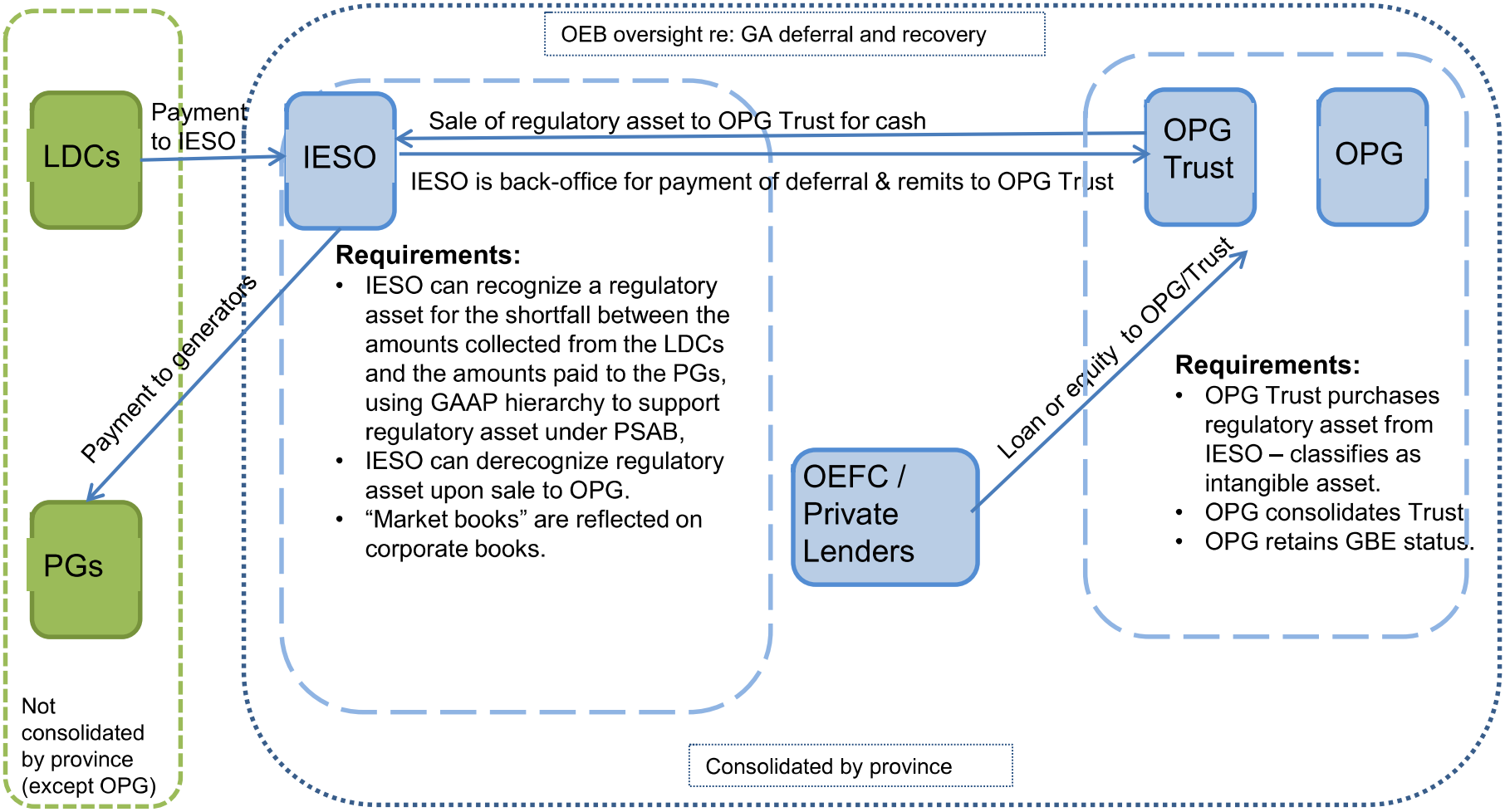
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

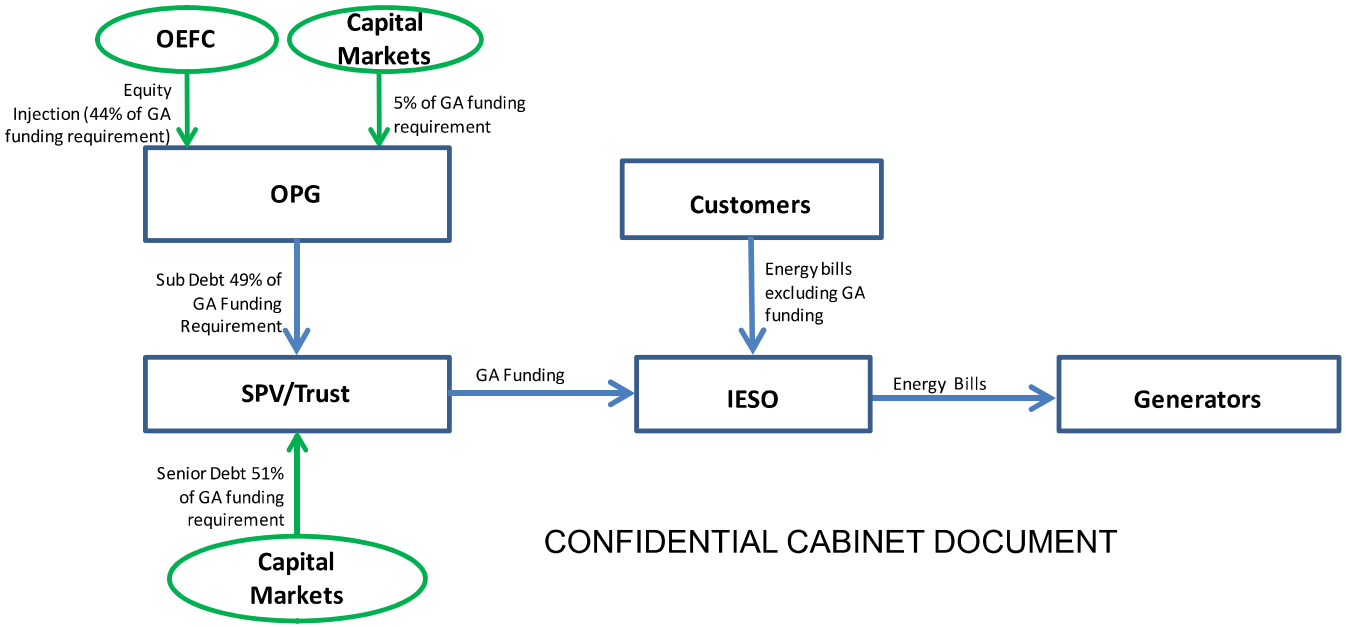
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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Ontario

GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

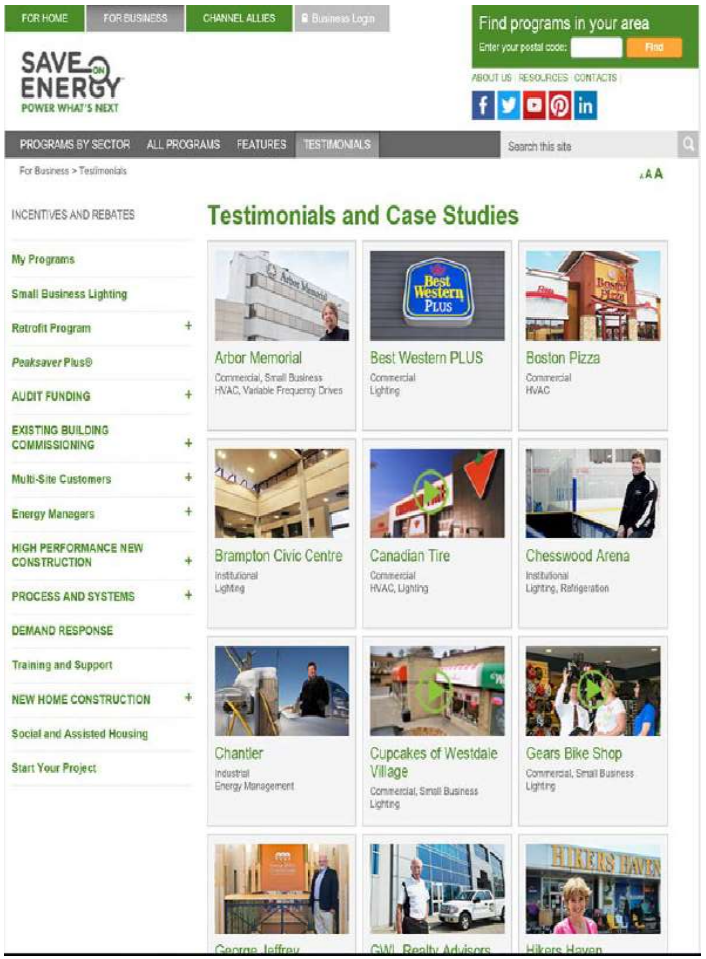
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



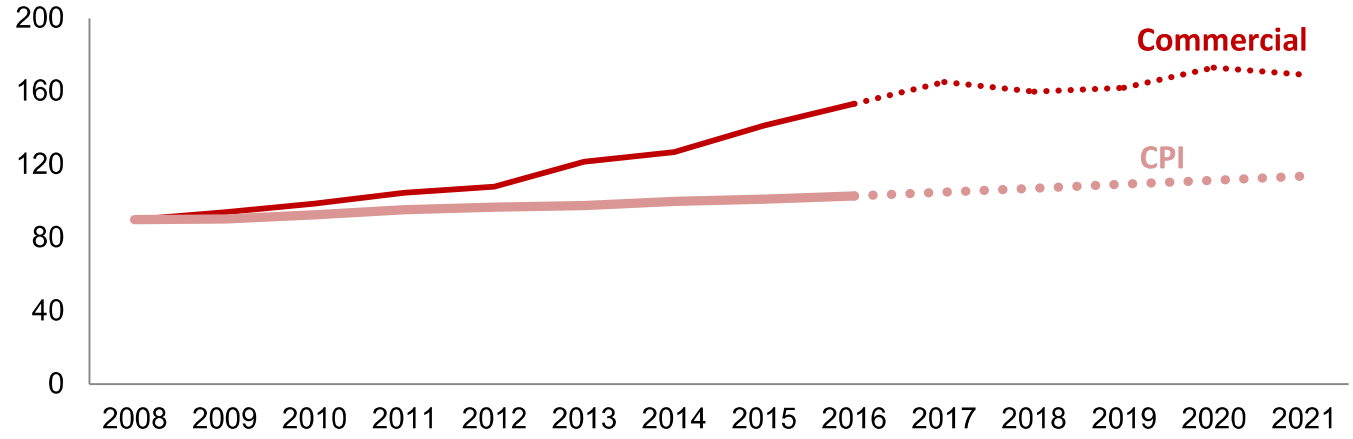
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

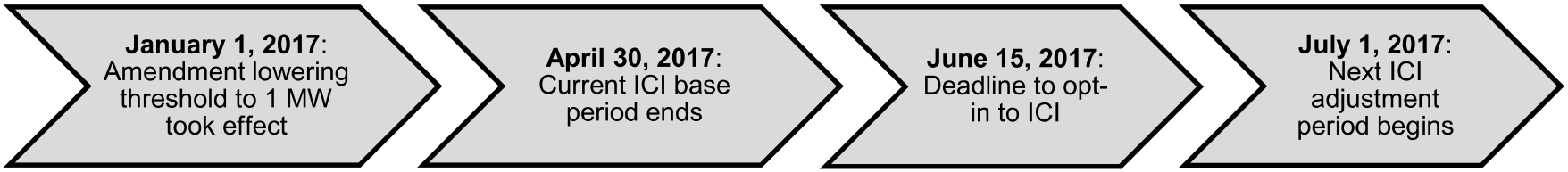
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

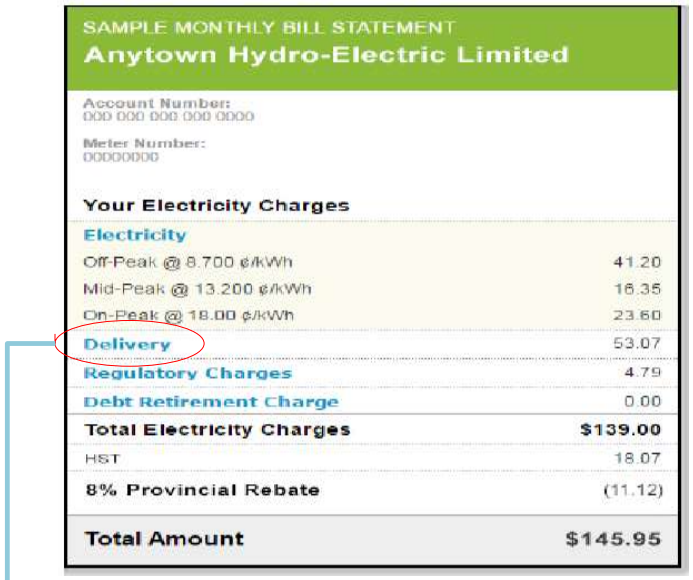
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

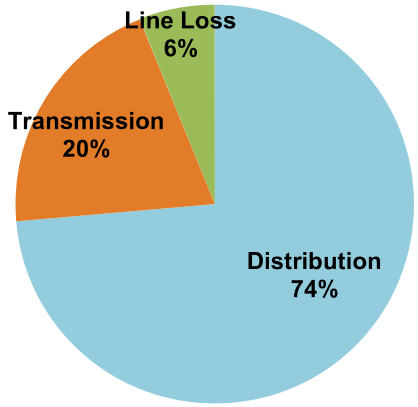
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

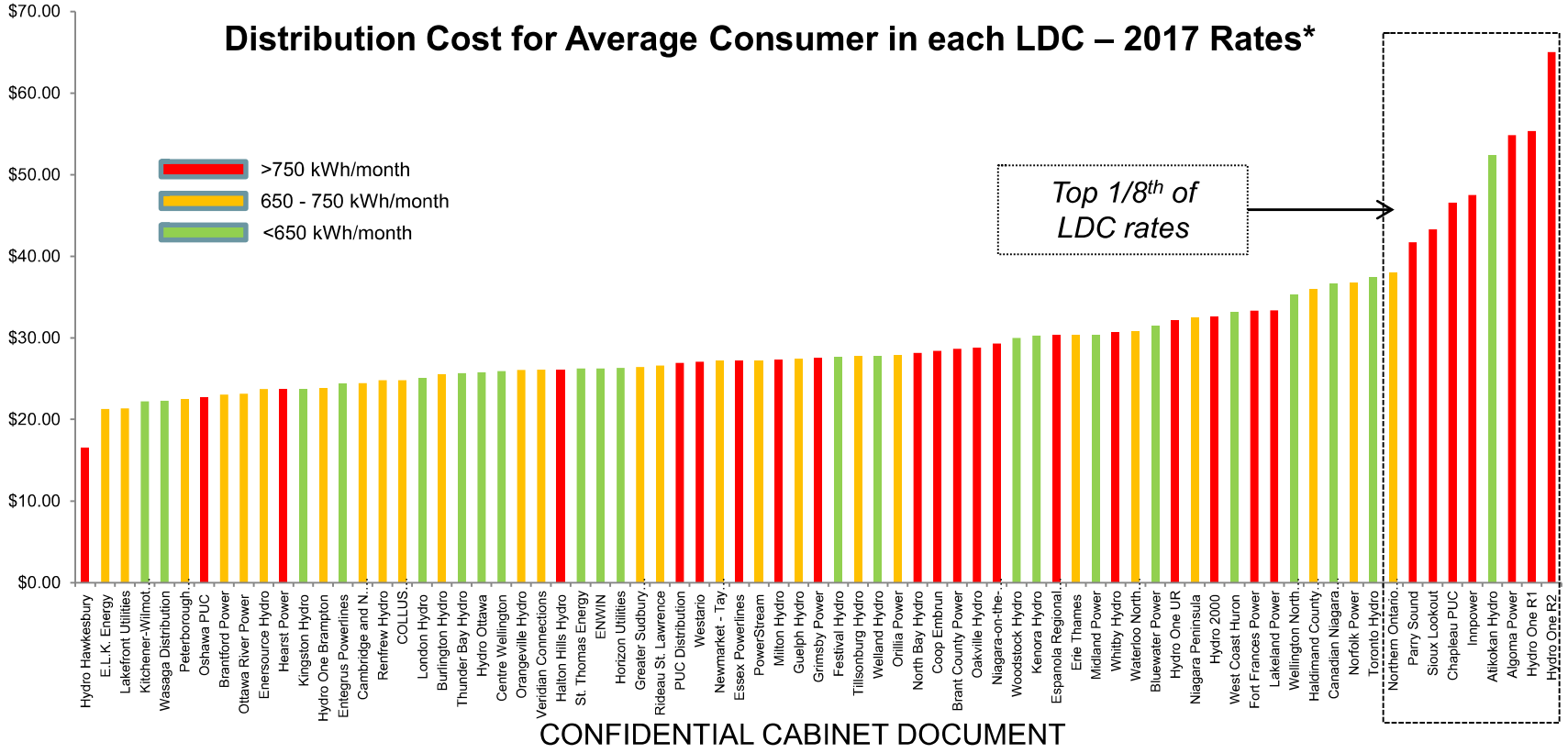
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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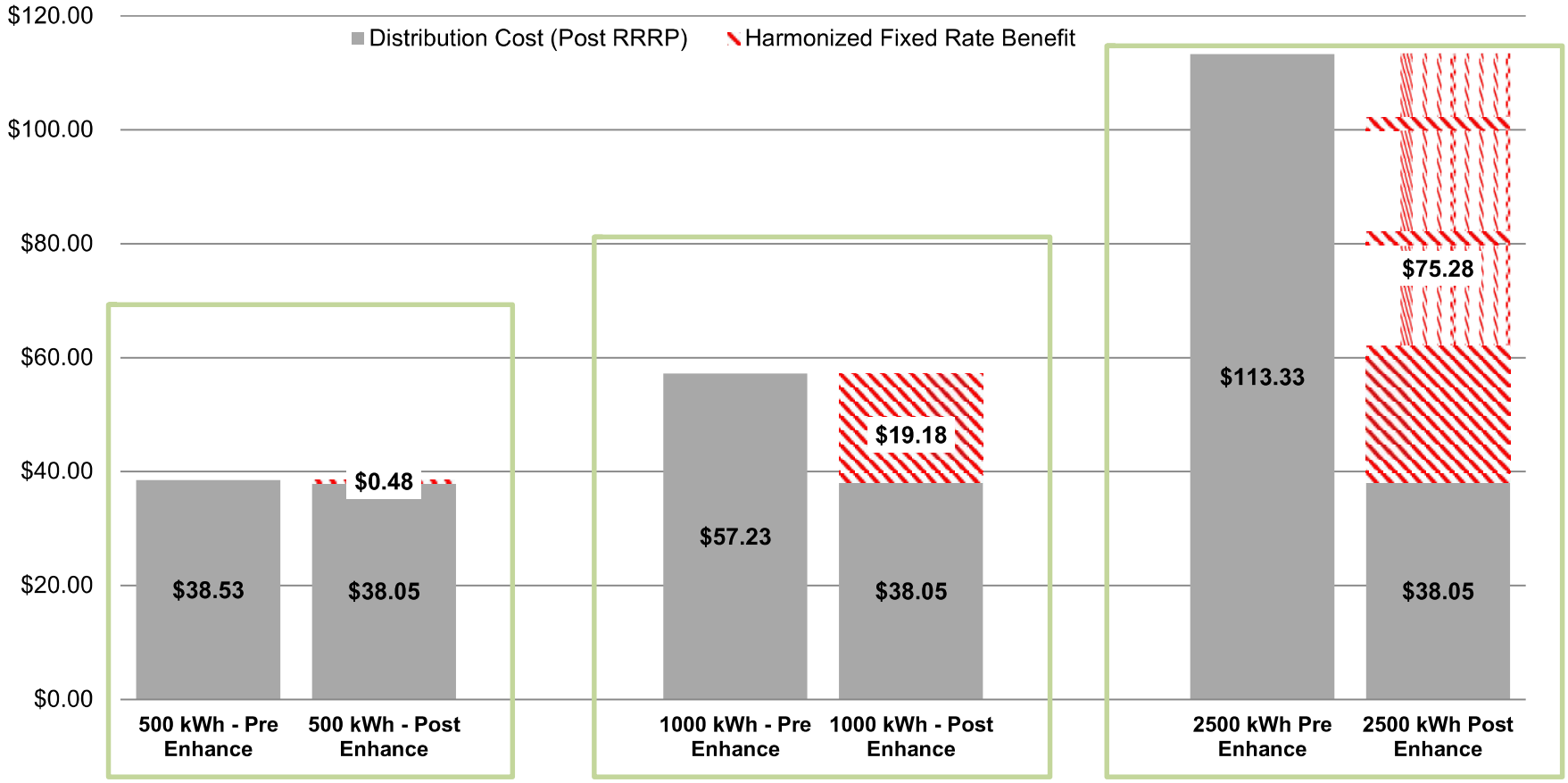
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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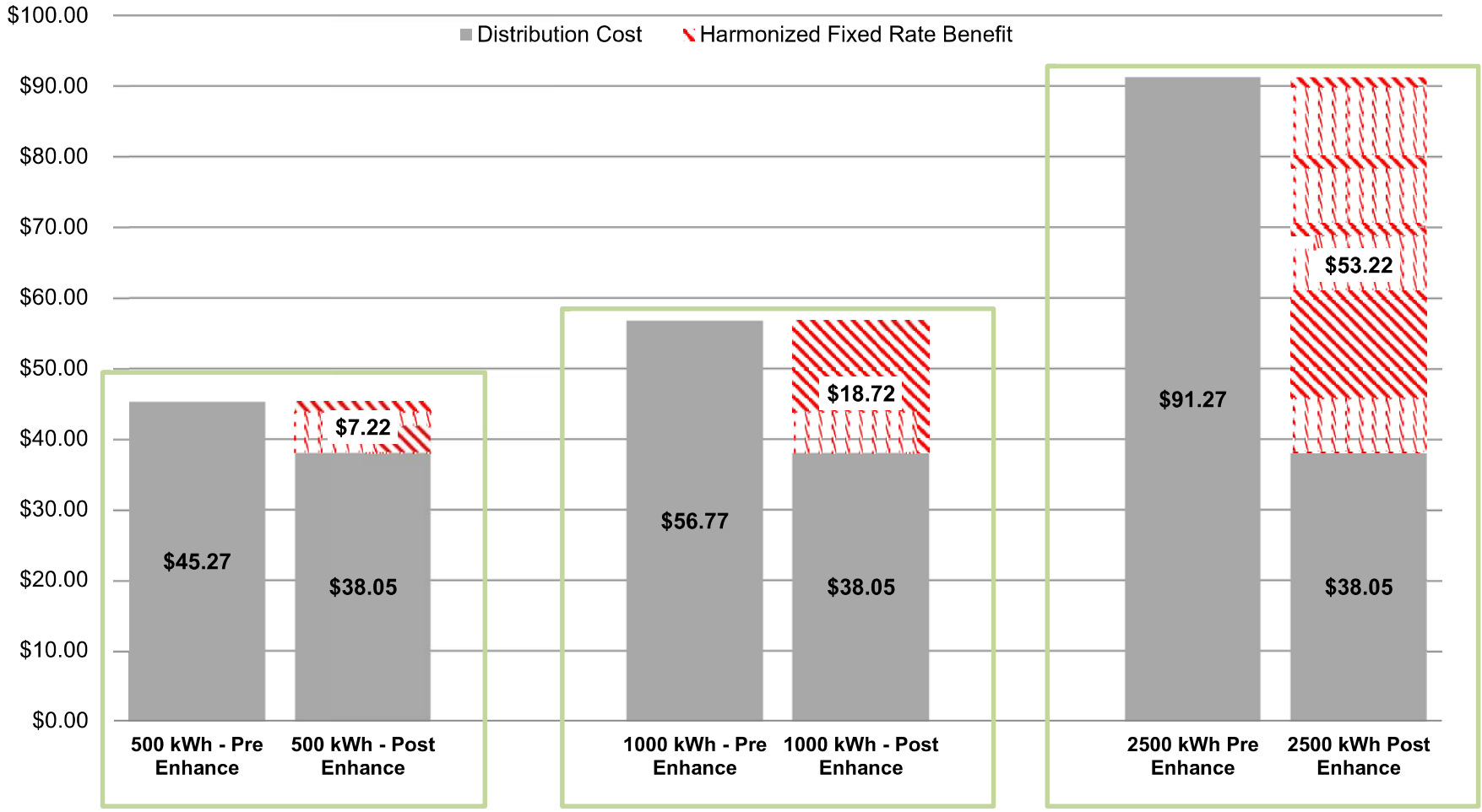
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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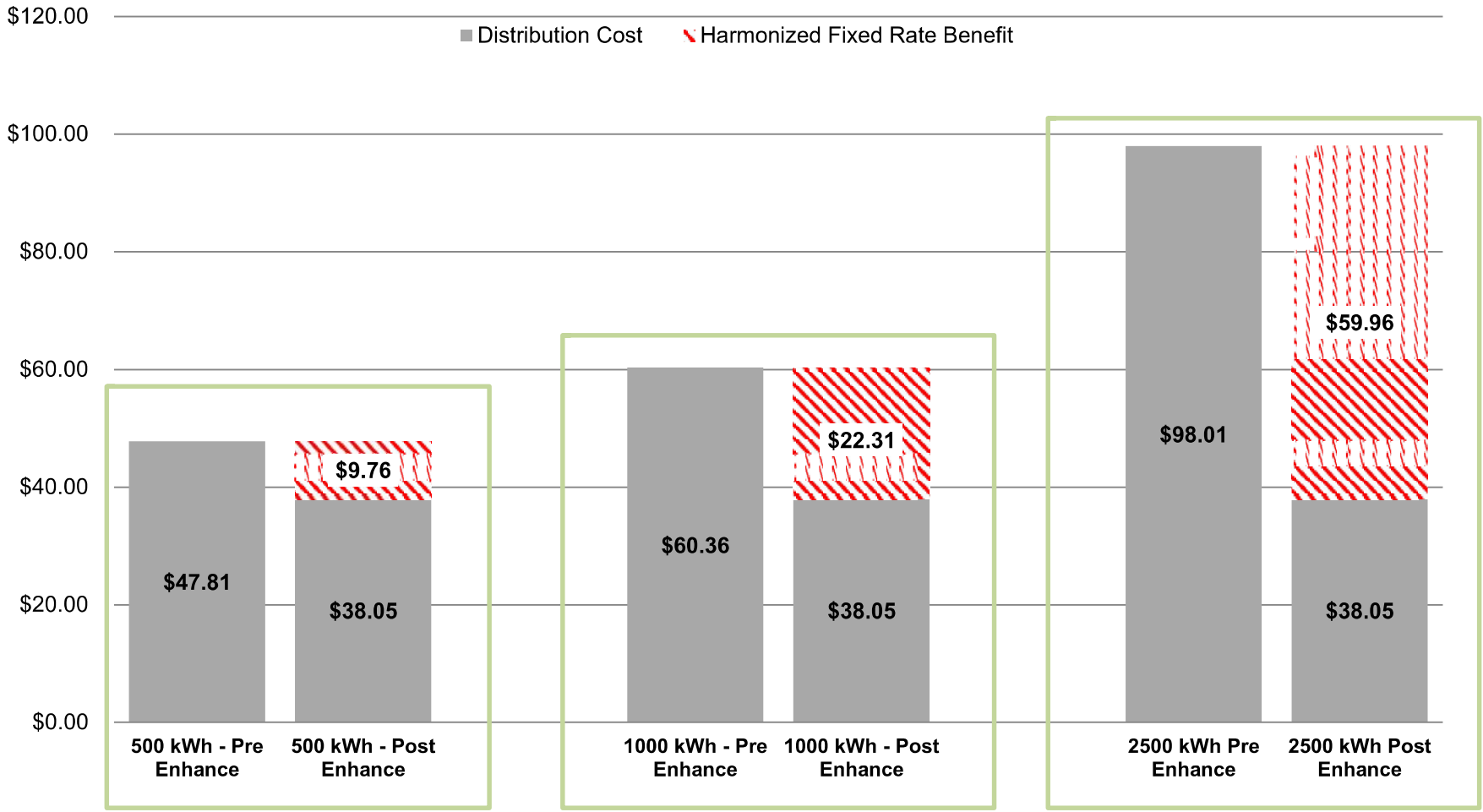
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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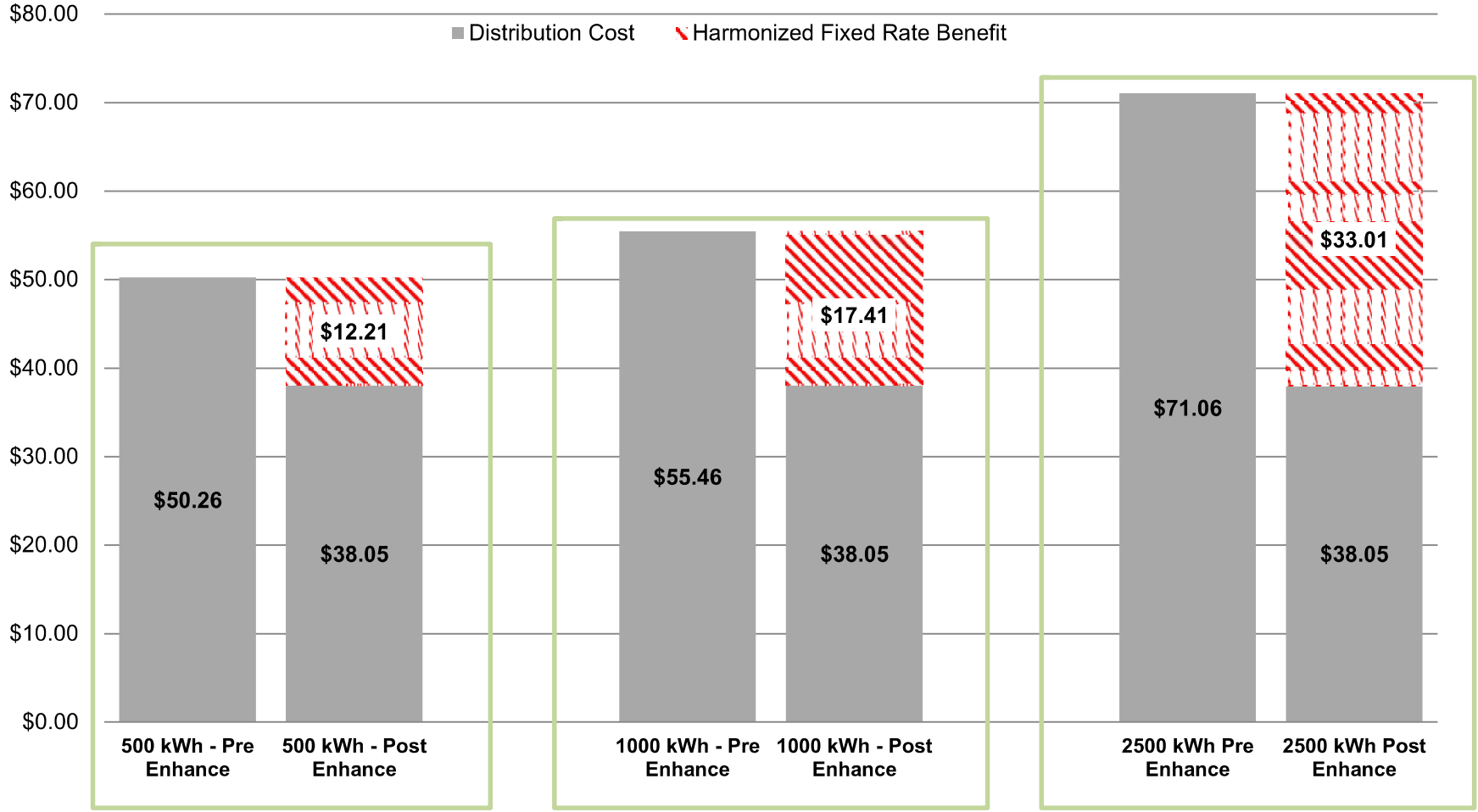
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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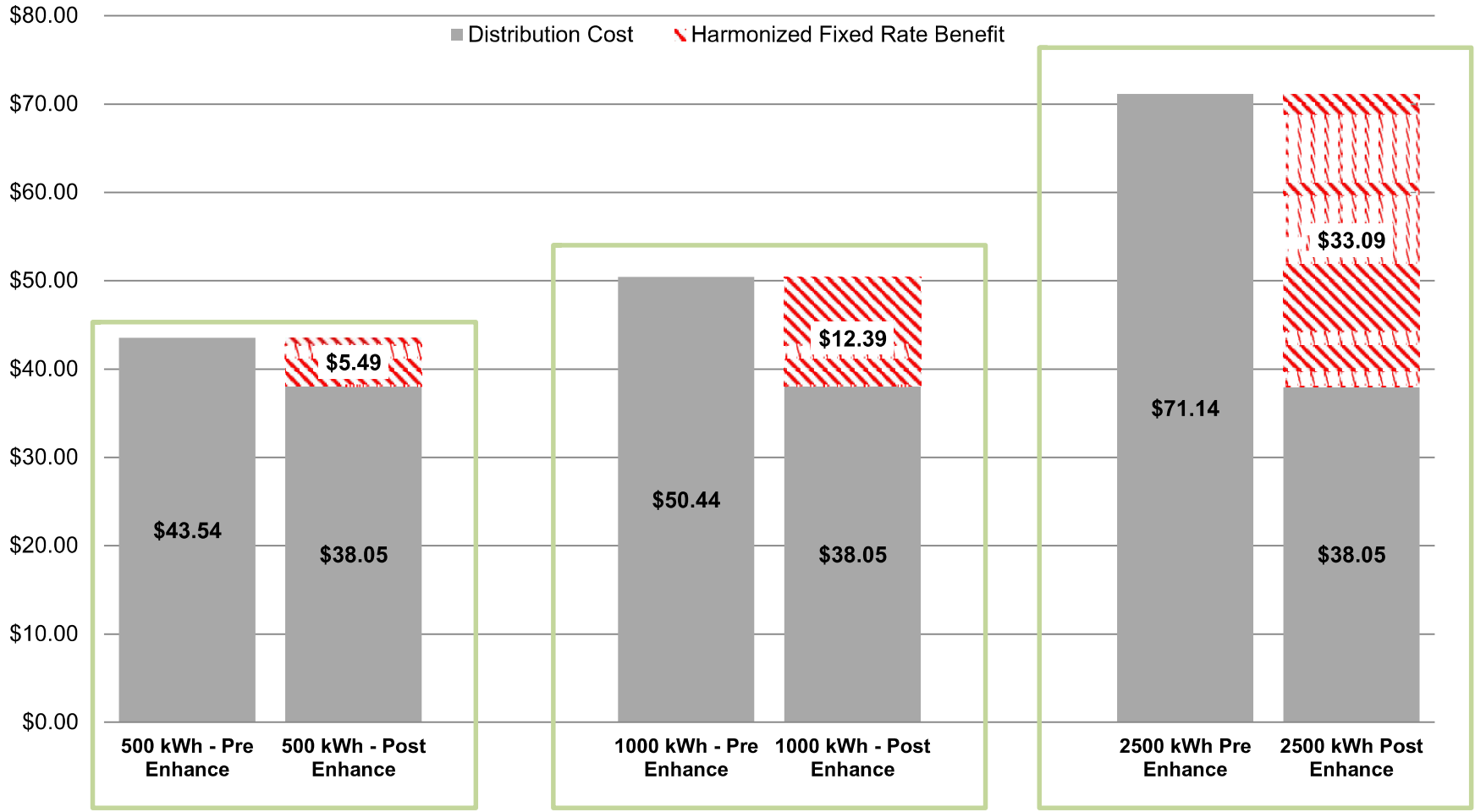
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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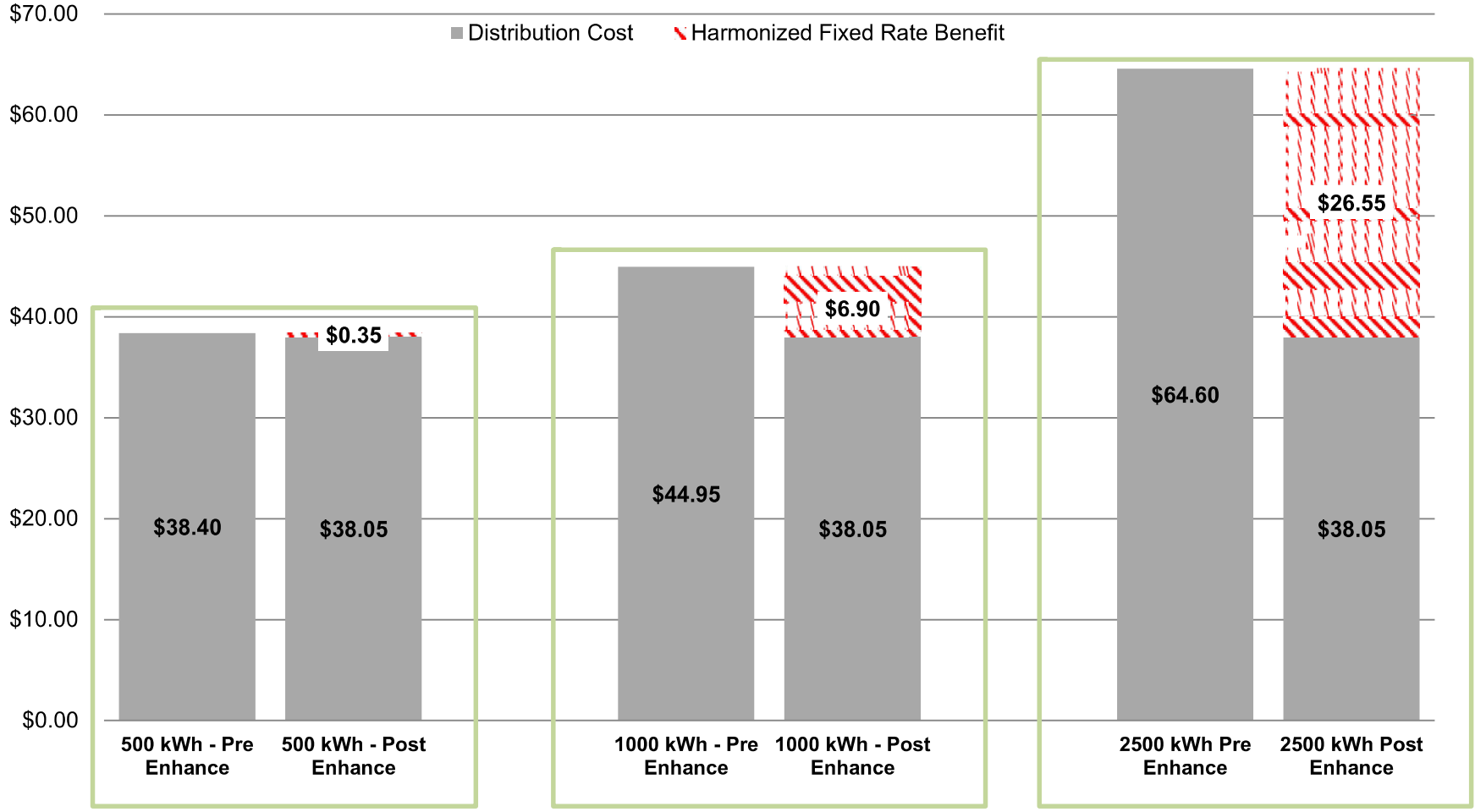
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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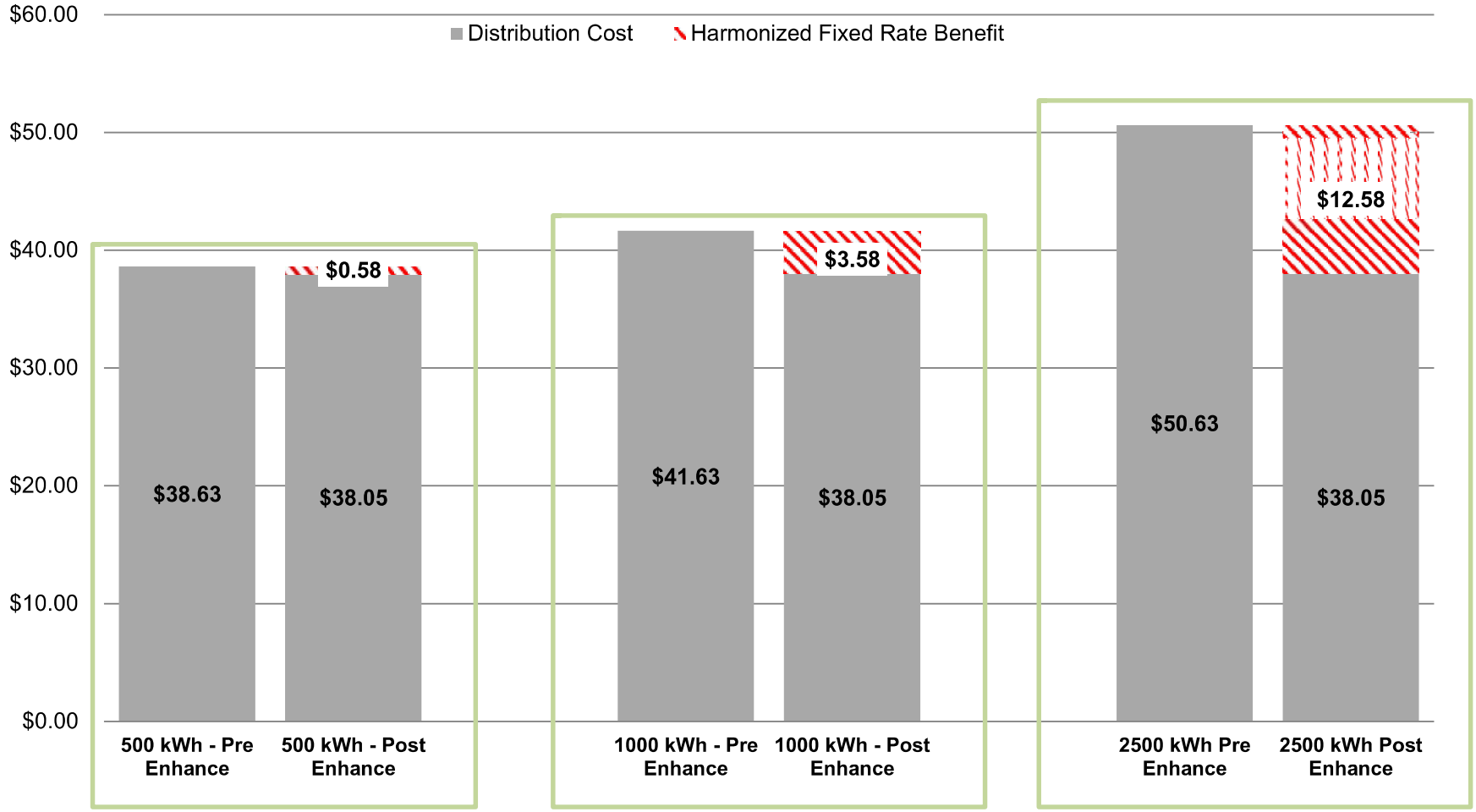
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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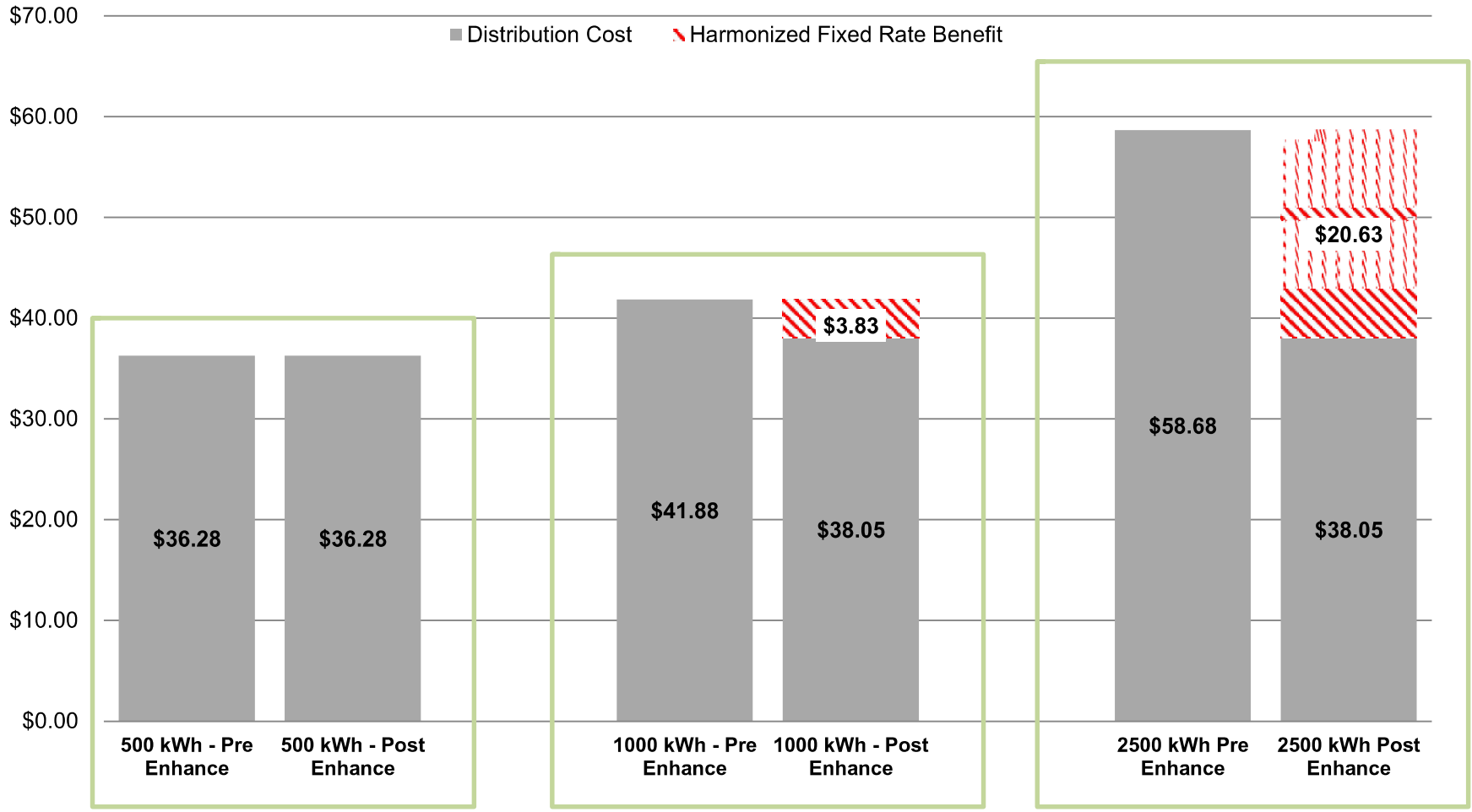
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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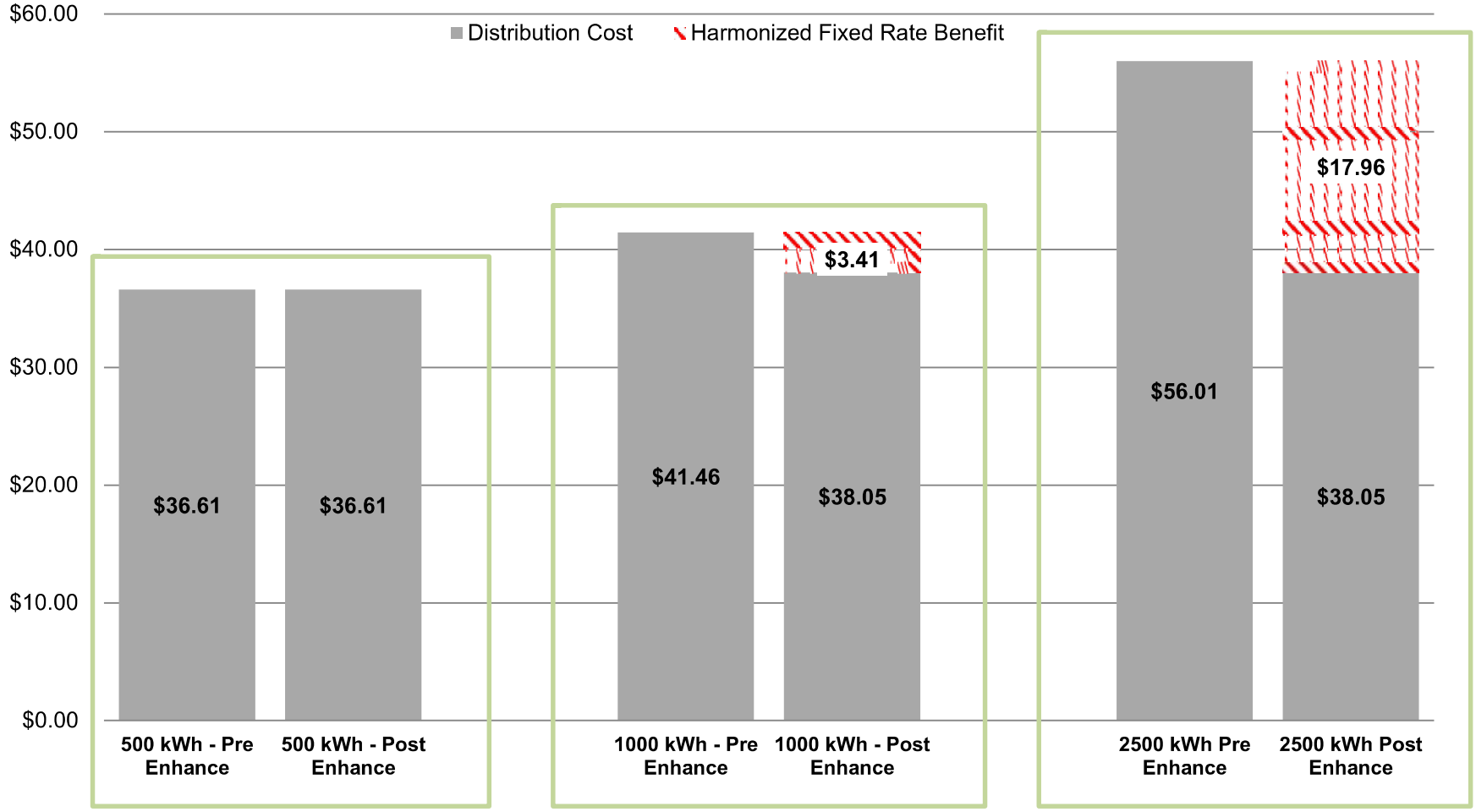
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

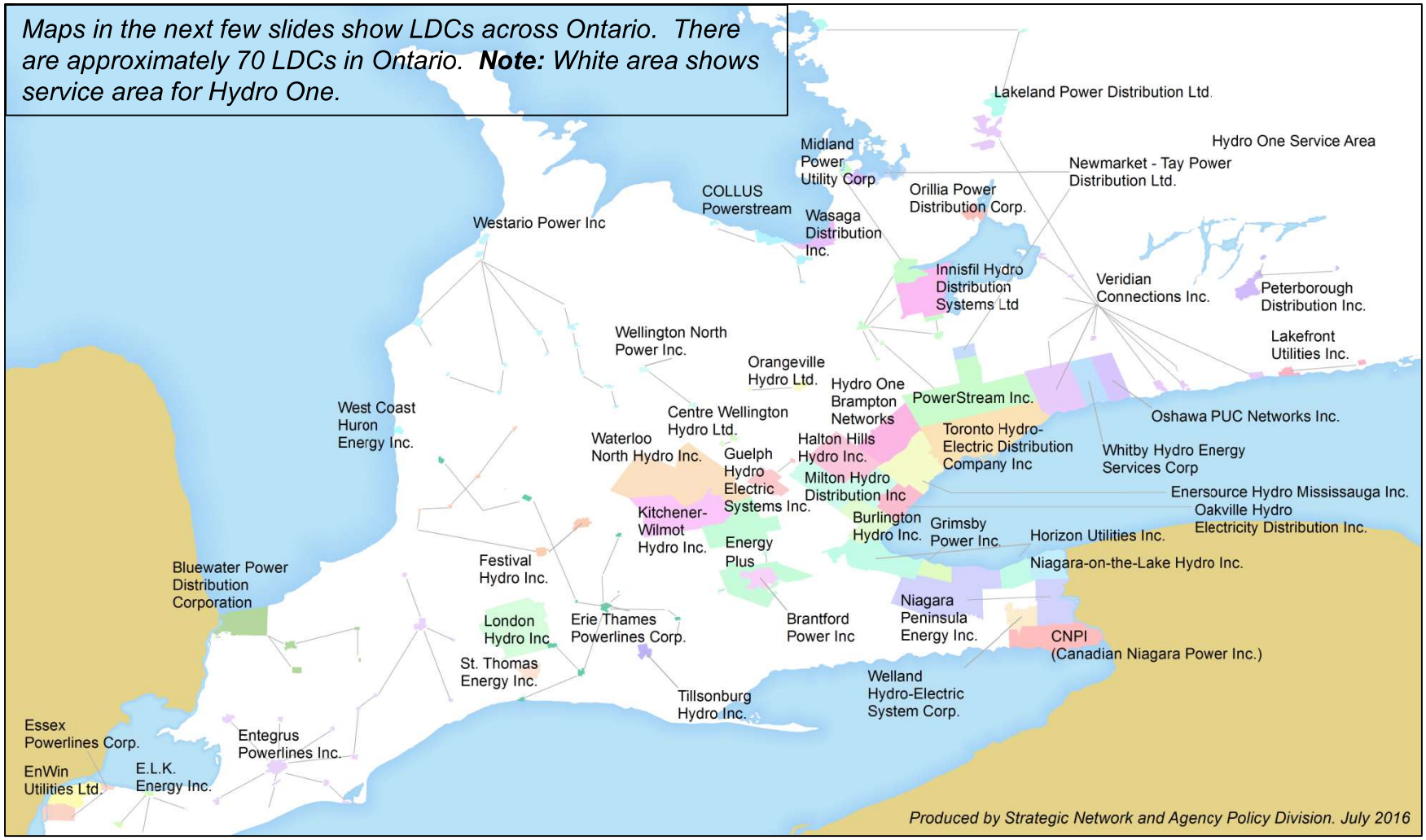
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

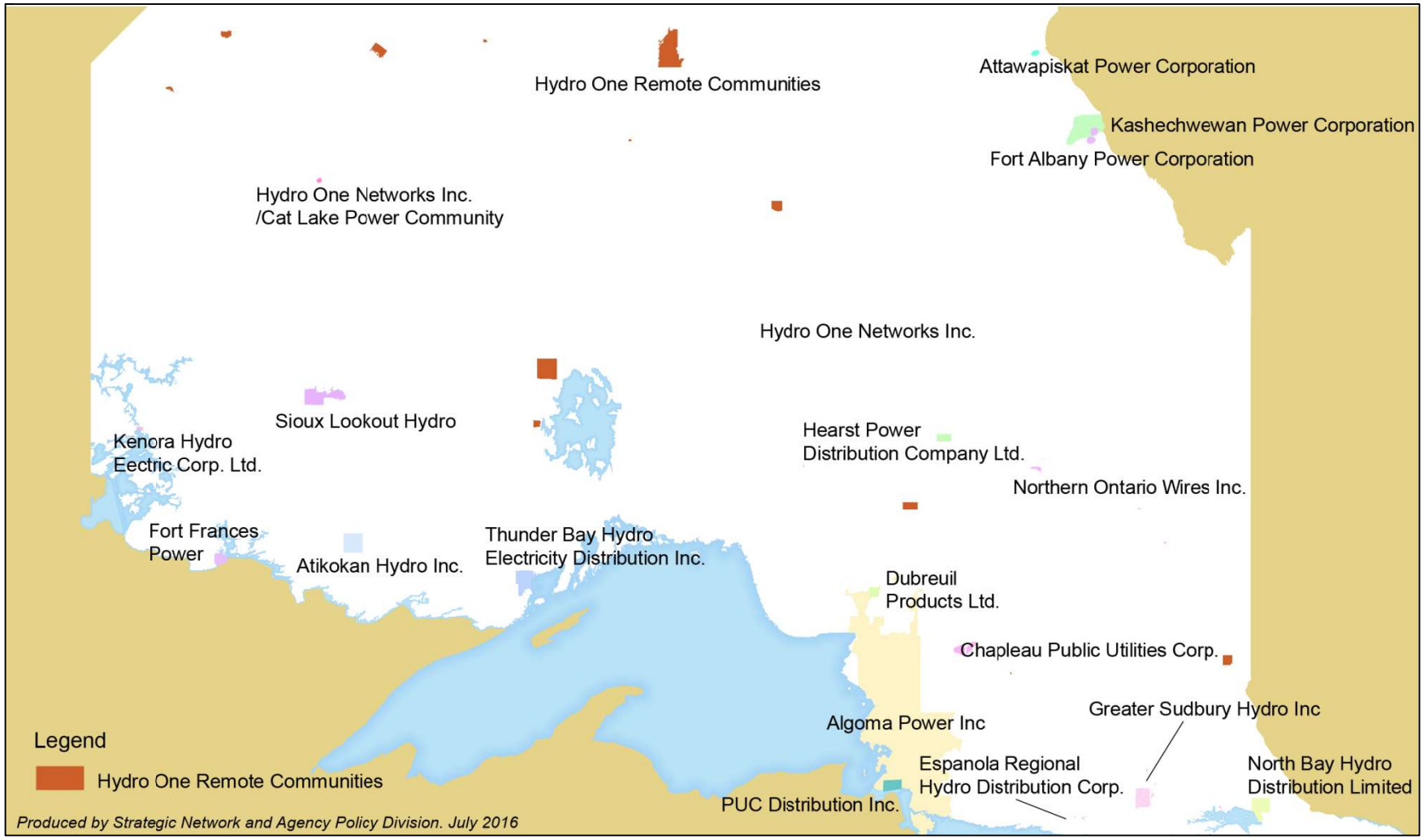
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

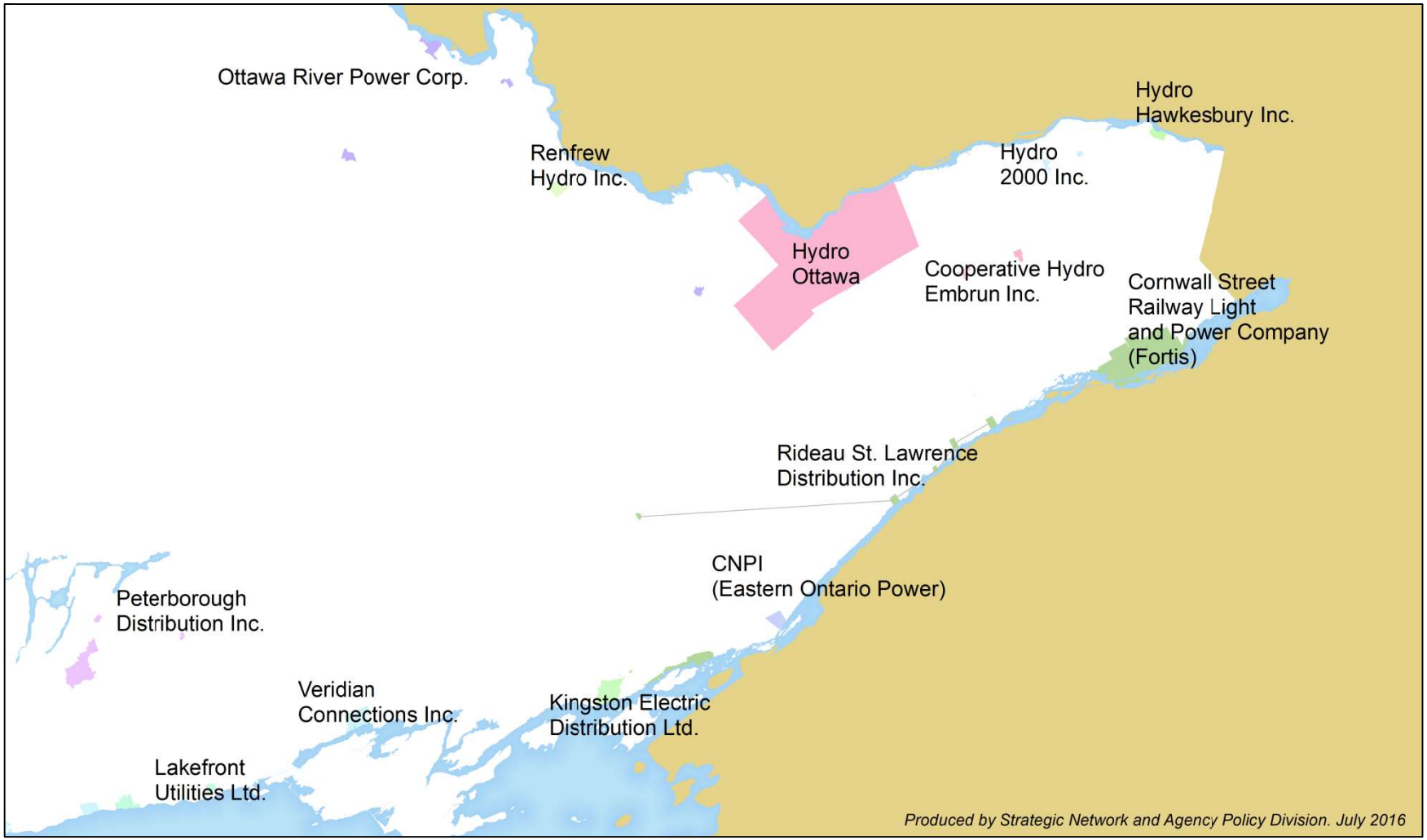
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

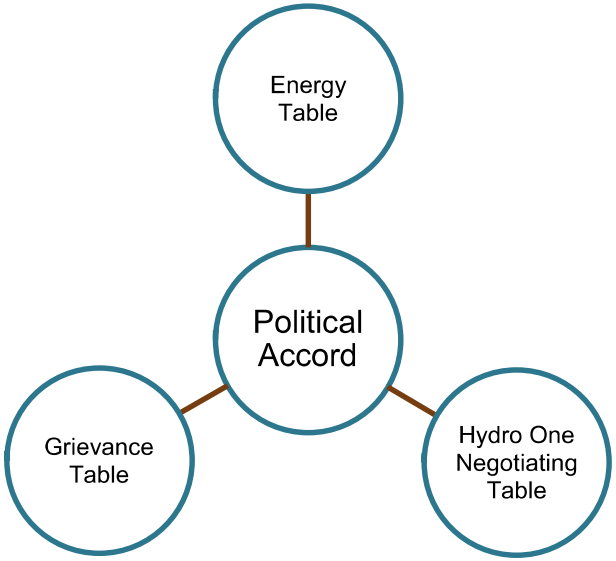
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

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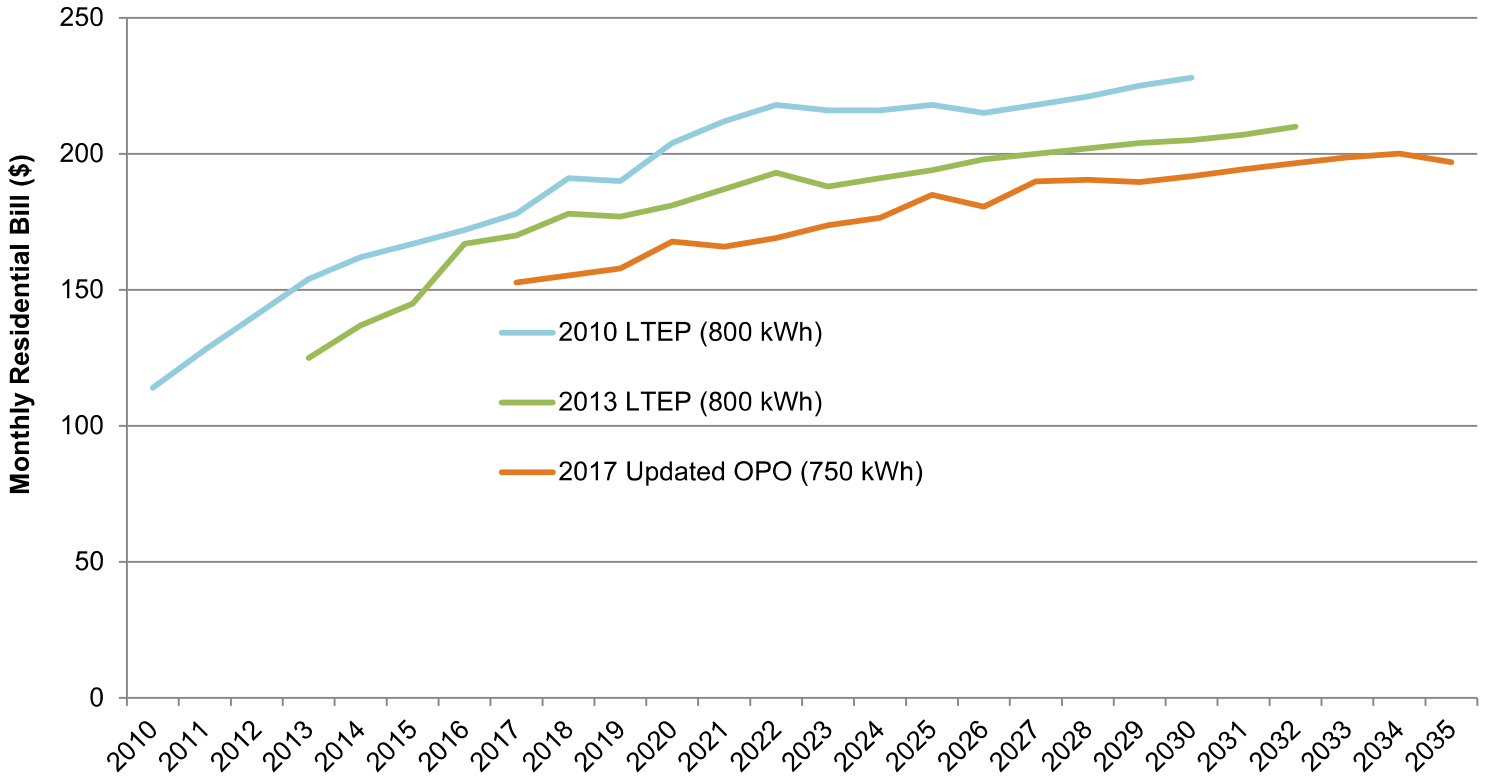
Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

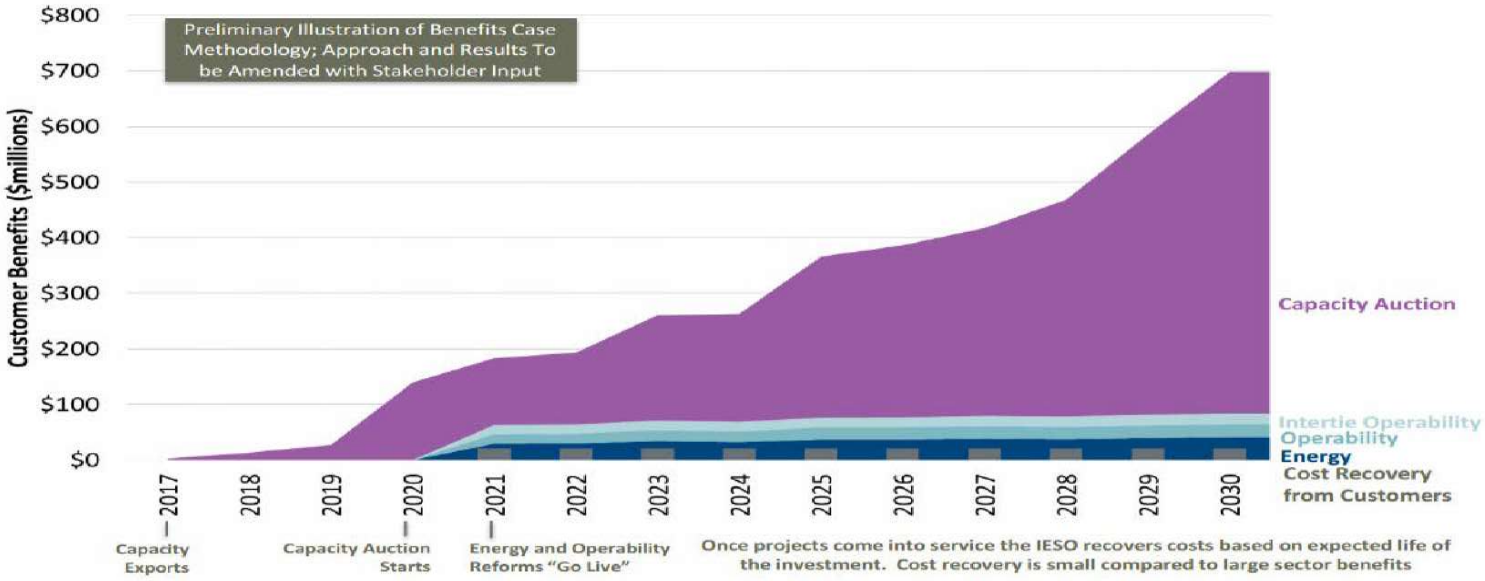
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

From: Bruno Amara
To: Ronald Kwan; John Kim
Subject: For DM Briefing.docx
Date: Tuesday, March 28, 2017 12:23:40 PM
Attachments: For DM Briefing.docx

Ron/John

Thinking of using this 2-pager, just to have something to speak to an put in front of Deputy. It is the high level summary. Let me know if you are OK with this approach.

Thanks
Bruno

Financial Accountability Office of Ontario

Question on The Financial Impact of Ontario's Fair Hydro Plan

- FAO questions are largely seeking background data and information on which Ontario's Fair Hydro Plan is based. This includes,
  - Projected costs of electricity over 2017 – 2048 period – Status Que vs. OFHP
  - Projected Global adjustment deferral and repayment schedule 2017-20148
  - Costs projections for other OFHP programs 2017-18 to 20147-48
    - Details on customers affected
  - Information on IESO Market Renewal Initiative and OEB efficiency initiatives
  - Explanation of financial impact of using OPG to conduct financing operations rather than OEFC

- Ministry of Energy and Ministry of Finance are largely responsive to FAO questions
  - ENE provides supporting data, where available, including IESO electricity costs forecast, market data from OEB (including Local Distribution Company summary data) and Hydro One market data.
  - Much of the data was included Energy's cabinet submission

Financial Accountability Office of Ontario
Question on The Financial Impact of Ontario's Fair Hydro Plan

- Main areas where ENE/MOF do not provide response to FAO questions:
  - Request for long term cost estimates to 2047 for OFHP programs. ENE provides cost estimates to 2020-21 for these, per information provided in cabinet submission
  - Two questions had limited responses as responsive records are not authorized to be released under records OC 1412/2016
    - Information requested on Affordability Fund cash payments. ENE identifies a TB/MBC cabinet submission as Affordability Fund as unauthorized for release
    - FAO question 6 asks for explanation of financial impact of using OPG rather than OEFC to conduct financing operations. MoF (CEFD) does not provide the OEFC comparison as OC 1412/2016 prohibits sharing of policy or costing options or recommendations, with FAO, unless the option or recommendation was selected by Cabinet or one of its committees. FAO is provided with GA financing table.

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 4:01:34 PM

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to

me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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From: Ronald Kwan
To: John Kim; Emily Kerr
Cc: Gavin He
Subject: Fw: OFHP Update
Date: Thursday, April 06, 2017 3:15:52 PM
Attachments: Agenda_Weekly Rate Mitig Implmentation Group_Mar 6.docx
Consolidated - OFHP Matrix - Week of April 3.docx
FHP Policy Foundations 04 04 2017 v.3.docx

Hi,

Please review and provide comments, highlights.

Emily, note the "Non-bypassability (exiting the electricity system / going off grid)" comment.

BTW, I seem to have not yet signed the letter back to Northland. Is that right? Would you get me the signing package on that.

Thanks,
Ron

From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: April 6, 2017 10:35 AM
To: David McLean (MOF)
Cc: Nancy Kennedy (MOHLTC); Gadi Mayman; Ronald Kwan
Subject: OFHP Update

Hi Dave,

Please see the following update (and attached materials) from this morning's rate mitigation meeting:

GA Financing

Legal Update
Fair allocation plan (think of this as the line showing savings and costs to ratepayers associated with this program over time)
Province has set plan for deferrals for the first 4 years (25% and annual increases tied to inflation)
Need process (within pre-set parameters and input from OPG) to determine path for deferrals and recovery for subsequent years (5-30)
Originally viewed Province as taking a role in setting out this path
Feedback from market that Province should not be involved
Need to determine appropriate lead entity (e.g. OPG or IESO)

Need to be linked to life of underlying assets in order to mitigate constitutional risk
Consider 1-2 year refresh on the plan
Structure is still in flux
Treasury Plan
OPG Trust sets this plan
Limited oversight in order to ensure OPG Trust can raise $ in the market at a reasonable cost
Must fit within the limits set by fair allocation plan (but can vary under the cost curve depending on market and interest rate realities)
Once specific bonds issued, fair allocation plan cannot override
Role for OEB
Needs to be extremely limited in order to meet market requirements
However need to project consumer confidence
Options are currently under reivew
Collectability is a key point that requires a number of provisions in legislation including
Irrevocable charges
Role of LDCs, IESO in collections
Non-bypassability (exiting the electricity system / going off grid)
Provincial back-stops
Springing guarantees that arise in the event Province takes certain actions that erode value to bondholders
Need to be limited and contingent in order to meet accounting tests
Dealers considering whether this needs to be in legislation or in a side agreement
Want to make sure that it is narrowly focused in terms of triggering events to cover only material impacts and avoid unintended consequences (investors taking legal action)

- Over time as relevant policy changes are implemented, trustee may look to a 3rd party (e.g. opinion, ratings confirmation) to ensure that value of debt is not degraded

If Province takes on any of the debt, need to determine what can happen from an accounting perspective. Situations to review:
Temporary freeze on borrowing markets
Permanent impairment of OPG's ability to purchase a portion of the asset from IESO (in this case may need a guarantee from the Province)
Timeline for legislation
Pens down April 21
May 1st TB, LRC, Cab
May 4th introduction
Currently working from a Blakes document as a straw-person that would act as instructions to legislative counsel
Driving to timeline, very aggressive

OPG
Special committee of the board met last week
RBC, CIBC, Goldman included
Discussed this is much larger than past models
Imperative that this structure follows past transaction models

Also reviewed stress scenarios (interest rates are most impactful)
Shareholder letter
Providing to committee tomorrow and will share with government thereafter
Reviewing sub-debt attributes
Certain characteristics needed in order to support senior debt financing (most notably will take on longevity risk)
Characteristics of the sub-debt would drive pricing (not tied to Province's cost of funds; likely to be higher interest rate)
At minimum, want to ensure that OPG's earnings are higher to offset incremental IOD to the Province

OEB
Comfort letter from the Province is nearly ready, hopefully tomorrow
Balancing amount of information needed

IESO
Want to narrow issues to what is needed in legislation
Regulatory asset
Speaking with KPMG today
Meeting with ENE today to discuss business issues

Affordability Fund
Advisory committee established to recommend final trustees
Will start mid-month deliberations
By May 31
3 from LDCs and 2 from social services
Hydro One is providing logistical support

Social programs (OESP, FN Rate, RRRP)
Same timelines for approvals as GA
Lots of details to sort through in regulation once legislation in place
Give comfort to LDCs, IESO, Board in terms of what will be included in regulations in order for them to begin implementation
Appearance on Energy Financials:
Will have flexibility to flow funds between programs while ensuring transparncy (4 line items but not executive control on each)
ENE could move $ between programs without TBS approval
OESP: May 1 implementation of enhancements, OEB using up existing funds so no immediate draw on fiscal plan, working with social program ministries to assist with implementation, working with MoF / CRA to remove wet signature requirement
RRRP: plan to have in place by July 1 for 8 utilities; retro-active start as safety valve if needed for utilities with more limited capacity to move quickly
FN Rate: working to set up a meeting with COO to discuss options (for next week), Province does not want to be involved in choosing who is FN therefore plan to determine eligibility solely on the basis of geography

ICI

Expanded to include greenhouses
Need to meet 500kw threshold
Were already eligible at 1MW; therefore, not many that aren't already been captured
Seeking LRC regulatory approval April 10th
Working with CME, OCC on outreach campaigns on benefits of ICI and other conservation initiatives

Bill Presentment

Will not attempt to change the bill for July 1

- If try to be more aggressive on changes to the bill may jeopardize implementation

Want a larger re-work, look at all the constraints and regulations

- For example, reconsider changing name of "delivery"
- Timing: fall for re-design

In the interim, want an insert that shows %

AG

Walk through with ENE / MoF staff on April 19th
TBS will share technical materials in advance

FAO

Submitted materials last week
Will circle back to determine status

Thanks,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 6, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

3) Bill Presentment (SNAP)

4) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 3, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation • Defining mitigation and recovery mechanism; and • Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg. 95/05) • Shareholder Resolution (work with OPG to determine form) • Third Party Technical Report re Long Lived Assets (TBD) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market	• IESO Board meeting on April 11, 2017 (TBD) – ESP to present on OFHP • AG briefing on April 19, 2017 (TBD) • Provide comfort level to allow OEB to include in May 2017 RPP • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	• OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • Legislative walk-through and working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Tuesday to work through issues related to legislation • LSB / Blakes to brief OPCD on legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap • Blakes / LSB to work with MAG on a second constitutional law	

Item	Key Deliverables / Considerations	Timing / Next Steps
	opinion from Peter Hogg • TD being engaged through OFA to provide financial advice • ESP to make presentation on GA financing at upcoming IESO Board meeting <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP/LSB working on LRC package for OESP enhancements • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • Board decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. <u>Considerations</u> • Legislative changes not required.	**April 7, 2017:** • Briefing for Advisory Committee members **April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) • ESP to consider implications of dropping below 500kw threshold due to investments in conservation <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • Ministry preparing responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion on April 19, 2017 (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment	• Initial discussion on March 31, 2017

Policy and Legal Foundations for the Proposed Ontario Fair Hydro Plan Act
April 4, 2017

Creating the Regulatory Framework

- Principles will link the benefit of the "Green Generation Initiative" with the regulatory cost that future rate payers will pay
- Need to name and articulate "Green Generation Initiative"

Fair Allocation Plan

- Policy direction around intergenerational funding will be established by the Minister of Energy
- The Fair Allocation Plan has been determined for the 1st four years, as set out in the March 2nd announcement
- Should there be a process around the Fair Allocation Plan [or as necessary]?
- [Role for the OEB?]

Treasury Plan

- Created by OPG to implement the Fair Allocation Plan
- Will pass through actual costs and expenses of funding obligations incurred
- 3 components:
    - Treasury Plan must be compliant with principles and parameters of the Fair Allocation Plan;
    - The Plan must match maturities to allocations under the Fair Allocation Plan, as well as achieve funding efficiencies and cost management articulated in the Fair Allocation Plan; and
    - Implementation
- Should [Minister?] [OEB?] review [and approve?] the Treasury Plan? At what point in process?

Establishment of the Regulatory Asset

- Right to recover from rate payers, through collection by LDCs and IESO, the regulatory charge, late fees, interest established by legislation
- IESO may dispose of (by assignment, transfer, sale, etc.) its right, title and interest in the Regulatory Asset
- Legislation will create property rights and allow for security interests in the Regulatory Asset
- [Role of the OEB in establishing the Regulatory Asset?]
- Role of OPG in acquiring the asset?

Ensuring Collectability

- Clearly defined class of rate payers that receive and pay for the benefit
- Charges are irrevocable
- LDCs have duty to invoice rate payers for the charge
- IESO and LDCs have duty to collect charges as agent and pay remittances to IESO
- IESO has duty to pay remittances to the Regulatory Asset Owner
- Non-by-passability – subject rate payers who opt to go off grid to a penalty (prepayment)?
- True up mechanism to reconcile collections with incurrences
- Province shall not take steps to reduce, alter, impair or terminate the Regulatory Asset or collection

OEB Role

- [Inspect books and records?]

DRAFT

- [Approve administrative costs?]
- [Prudence review of financing costs?]
- [Consequences of OEB review?]
    - Ability to review
    - Ability to review and make recommendations (non-binding)
    - Review and approve or refer back for reconsideration (binding)

Provincial Guarantee

- Scope / Triggers / Consequences / Form

DRAFT

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Fw: Ontario Fair Hydro Plan
Date: Thursday, April 20, 2017 6:17:56 PM
Attachments: Fair Hydro Plan Act (April 20 2017) Consultation v3.docx

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Hey John - here's the latest legislation

From: Kacaba, Jennifer (ENERGY)
Sent: April 20, 2017 5:59 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI)
Subject: RE: Ontario Fair Hydro Plan

All - Please find attached the next turn in the consultation draft (v.3) of the proposed legislation. We have been working to address the feedback that you provided earlier in the week. A number of points remain in progress. As with the earlier versions, by sharing this document, we hope to continue to advance our discussions.

Our timeline has been extended and we are now working to a pens down date of April 28th. We will not get another extension. Accordingly, we ask for your detailed, written comments on the draft, which we require no later than Sunday at noon.

We will continue to work on the bill in the interim, so earlier instructions are helpful to us. With your input on this timeline, we expect to be able to provide one more circulation around Tuesday or Wednesday next week.

We have not had the opportunity to add notes or to update our crosswalk to the Blakes summary document.

We look forward to receiving your written comments.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Kacaba, Jennifer (ENERGY)
Sent: April 17, 2017 12:00 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: RE: Ontario Fair Hydro Plan

Please find attached a further turn of the consultation draft. This document continues to be a work in progress. We have not had the opportunity to add notes or update our tracking table. We also have not yet considered the comments that we received this morning. We look forward to seeing you at 1.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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recipient(s) is prohibited. If you have received this message in error please notify the writer and permanently delete the message and all attachments. Thank you.

From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
Sent: April 15, 2017 10:06 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
Cc: 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: Ontario Fair Hydro Plan

All - Please find attached the draft “Intergenerational Fairness in Hydro Rates Act, 2017”. A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.

For ease of reference, included with the draft bill are the partially updated Blakes’ summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.

In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday

Carolyn Calwell
Legal Director
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility

416-212-8392

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Version 3

This confidential draft document is provided for discussion purposes only. It should not be construed as representing the position adopted by the Government of Ontario on any of the topics included or not included in this document. The notes included in this document are intended only to help facilitate a discussion of the topics to which they relate. Any potential legislation is subject to the approval of the Ontario Legislature.

Confidential Draft

A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL
TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

[Notes re this draft:
- all numbering of provisions may need to be re-done
- will need to check all definitions to ensure (1) that they are needed; and (2) that they work properly wherever the term is used in the Bill.
- additional consequential amendments likely required still
- overall organization of provisions still TBC (for now just trying to get all of the elements drafted and will reconsider architecture later)
- need to check consistency of various phrases (e.g. *during/for/in respect of* reference period; *owner of RA/IA vs. RA/IA owner; etc.)*]

Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1]

The Government of Ontario has established a regulatory framework related to the generation and sale of electricity, which has promoted and continues to promote significant investment to enable phasing out of coal fired generation, modernizing sites and facilities in the Province for the generation of electrical energy and the production therefrom,[2] and conservation and demand management.

The Government of Ontario is committed to ensuring that the costs of these investments, and the raising of money to fund the investments,[3] are allocated fairly among present and future generations of consumers.

Therefore, Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

[1] Note: please see the preamble of the *Green Energy Act, 2009.*
[2] Note: please see clause 92A (4) (b) of the Constitution, 1867: "des emplacements et des installations de la province destinés à la production d'énergie électrique, ainsi que de cette production meme".
[3] Note: please see opening flush of s. 92A (4) of the Constitution Act, 1867

Confidential Draft

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")
[Note - will need to check throughout the draft that references to CEA are clear as to whether it's the total CEA in respect of a reference period vs. the portion payable by a specified consumer.]

"clean energy benefits" means, in respect of a reference period, the value of the benefits determined to be derived by the specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected future incurrences of clean energy costs; ("French")

"clean energy costs" means, in respect of a reference period, the value of the costs allocated to specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated costs to be incurred by the IESO under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management, including storage,

(iii) energy efficiency,

(iv) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(v) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

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(b) such other estimated costs as may be prescribed; ("French")

"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[4] means the IESO, a licensed distributor, a licensed retailer or such other person as may be prescribed; ("French")

"fair adjustment" means the determination of the rate payable for electricity in accordance with Part II; ("French")

"Financial Services Manager" means Ontario Power Generation Inc. [or such other person or entity as may be appointed as the Financial Services Manager by the Minister under section **]; ("French")

"Financing Plan" means the plan prepared under section X, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means a payment obligation incurred by or on behalf of the regulatory asset owner or an investment asset owner under section x; ("French")

"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means, in respect of a reference period, the amount determined under section 20xx for the reference period; ("French")

"investment asset" means the investment asset created as described in section 22xx; ("French")

"investment asset owner" means a financing entity that acquires an investment interest in the investment asset; ("French")

[4] Note - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"investment interest" means an ownership interest in the investment asset, which entitles an investment asset owner to the rights and benefits specified in the agreement under which the ownership interest is transferred;

"invoice amount" means the amount, determined in accordance with subsections (2.1) and (2.2) and the regulations, that is payable by a specified consumer for the provision of electricity in Ontario during a period of time specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

(a) the period beginning on May 1, 2017 and ending on October 31, 2017,

(b) every six-month period following the period mentioned in clause (a) or such shorter period as may be set out in the Fair Allocation Plan; ("French")

"refinancing" means a repayment or repurchase of a funding obligation for cancellation by or on behalf of an investment asset owner by applying the net proceeds obtained by the owner incurring one or more other funding obligations; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right established under section X to recover the IESO funding shortfall; ("French")

"representative consumer" means a consumer who meets the criteria set out in subsection (3); ("French")

"specified consumer" means,

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(a) a person who has an account with an electricity vendor for the supply of electricity, receives an invoice in respect of the account and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"Toronto Hydro" means Toronto Hydro-Electric System Limited; ("French")

"transfer" means an assignment, conveyance, disposition or sale; ("French")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

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Invoice amount

(2.1) Subject to subsection (2.2) and the regulations, the invoice amount for a specified consumer includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following:

    i. The commodity price of the electricity used during the invoice period.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

    iv. The amount of any harmonized sales tax payable [by the consumer?] under Part IX of the *Excise Tax Act* (Canada);

    v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO, such amounts as may be prescribed. ("French")

Same, exclusions

(2.2) Except as otherwise prescribed by the regulations, the invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

    i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

    ii. A charge labelled as a "specific service charge" or "retail service charge".

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iii. A rate rider.

5. Any other prescribed amounts.

Representative consumer

(3) For the purposes of the definition of "representative consumer" in subsection (1), the consumer,

(a) purchases electricity directly from Toronto Hydro;

(b) has an account with Toronto Hydro that falls within a residential-rate classification as specified in a rate order made by the Board under section 78 of the *Ontario Energy Board Act, 1998*;

(c) is invoiced by Toronto Hydro on a monthly basis;

(d) is not invoiced by Toronto Hydro for electricity on an equal monthly payment plan or an equal billing plan; and

(e) uses, on average, 750 kilowatt hours of electricity each month.

Transfer

(4) For greater certainty, a transfer of the regulatory asset or a portion of the regulatory asset includes any act of the IESO by which the IESO purports to dispose of its interest in the regulatory asset with the result of a named person becoming the owner of an investment interest.

Effect of invalidity, etc.[5]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if some provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect a funding obligation that was incurred under this Act before the day that the provision was held to be invalid or ceased to be in effect.

Purpose

3xx. (1) The purposes of this Act are,[6]

[5] Note: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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(a) to ensure that clean energy costs are fairly allocated among specified consumers over time and that the process by which the Province raises money to fund the costs reflects the fair allocation; and

(b) to recognize that clean energy benefits that have accrued and that will accrue over time will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the amount of the clean energy adjustment or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding financial commitments, financial arrangements, indemnities or similar transactions.

PART II
FAIR ADJUSTMENT

[6] Note: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Fair adjustment, May 1, 2017 to April 30, 2018
Definition

6xx. (1) In this section,

"average baseline invoice amount" means the average monthly invoice amount that would be payable by a representative consumer under the average baseline rate; ("French")

"average baseline rate" means the average rate that would be payable effective May 1, 2017 by the class of consumers prescribed by the regulations under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act, as determined by the Board by applying the method prescribed by the regulations under clause 79.16 (1) (b) of that Act; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

Rate determination

(2) Subject to subsection (3), [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] the rate for electricity payable by a specified consumer for the period beginning on May 1, 2017 and ending on April 30, 2018 is the average rate that would be payable by a representative consumer in order for the representative consumer to receive a monthly invoice amount that is 25 per cent less than the average baseline invoice amount.

Sub-meter customers

(3) A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the rate determined under subsection (2).

Determining rate

(4) The rate mentioned in subsection (2) shall be,

(a) determined by the Board within seven business days after this section receives Royal Assent; and

(b) effective as of the first day of the calendar month immediately following the determination.

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Transition

(5) If, for technical or operational reasons, an electricity vendor, specified consumer or unit sub-meter provider is unable to adapt its invoices to comply with this section by the time it issues its first invoice for electricity consumed on or after May 1, 2017,

(a) the electricity vendor, specified consumer or unit sub-meter provider shall adapt its invoices as soon as possible and, in any event, no later than [August 1, 2017]; and

(b) the electricity vendor, specified consumer or unit sub-meter provider shall ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Fair adjustment, May 1, 2018 to April 30, 2022

7xx. The Lieutenant Governor in Council may, [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] make regulations prescribing the rate for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay clean energy adjustment

8xx. (1) Upon receipt of an invoice that includes a clean energy adjustment, a specified consumer shall pay the clean energy adjustment to the electricity vendor, as agent of the investment asset owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment is inconsistent with the fair allocation calculation applicable at the time when the payment is due; and

(b) whether the clean energy adjustment relates to funding obligations that were incurred in a manner that was inconsistent with the Financing Plan.

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Indebtedness of specified consumer

(4) An unpaid clean energy adjustment that is required to be paid by a specified consumer under this section constitutes indebtedness of the consumer to each investment asset owner in respect of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer under the invoice or otherwise.

Irrevocability of clean energy adjustment

9xx. (1) The amount of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness created by the adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a calculation error by the electricity vendor.

Determination of clean energy adjustment

10xx. (1) The clean energy adjustment payable by all specified consumers in respect of a reference period shall be determined as follows:

1. Calculate the estimated finance amount for the reference period in accordance with Schedule 1 and such additional rules as may be prescribed.

2. Add the true up amount for the reference period, as determined in accordance with the prescribed method, to the estimated finance amount calculated under paragraph 1.

True up amount

(2) For the purposes of paragraph 2 of subsection (1), the Lieutenant Governor in Council may make regulations prescribing the method for determining the true up amount, having regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the estimated finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

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i. differences between amounts billed and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

ii. variations in billings due to variations in electricity consumption.

IESO to issue remittance notice to electricity vendors

11xx. (1) The IESO shall, in accordance with the regulations, issue a remittance notice to each electricity vendor for the electricity vendor's portion, as determined in accordance with the regulations, of the clean energy adjustment in respect of a reference period.

IESO to collect

(2) The IESO shall, as an agent of the investment asset owners, collect the clean energy adjustment from electricity vendors [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Collection account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of collecting those accounts:

1. Amounts described in subsection 12 (4).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8 (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (6), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment asset owners in accordance with the regulations.

Collection of outstanding amounts, regulatory asset

(6) If the total clean energy adjustment payable by specified consumers in respect of a reference period is less than the amount contemplated to be payable under the

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applicable fair allocation calculation made by the Financial Services Manager under Part IV, the IESO may collect the difference from specified consumers.

Electricity vendor to invoice specified consumers

12xx. (1) The electricity vendor shall issue an invoice to each specified consumer for the consumer's amount of the clean energy adjustment in accordance with the regulations.

Electricity vendor to collect

(2) Each electricity vendor shall, as an agent of the IESO and the investment asset owners, collect the clean energy adjustment from specified consumers [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges for the same invoice period.

Held in trust

(4) All of the following amounts received by an electricity vendor shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act:

1. Payments received from or on behalf of specified consumers under subsection 8 (1).

2. Portions of payments received from or on behalf of specified consumers under subsection 8 (1) that are allocated to the clean energy adjustment under subsection (3).

3. Any proceeds arising from the exercise and enforcement of any rights and interests under or in respect of the investment asset.

Remittance to IESO

(5) Each electricity vendor other than the IESO shall remit amounts described in subsection (5) to the IESO for the benefit of the investment asset owners or secured parties in accordance with the regulations.

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Regulations

(6) If an electricity vendor fails, in the manner described in the regulations, to comply with the requirements of this section, the electricity vendor shall take such steps as the regulations may prescribe.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) [Note: To be elaborated.]

Termination

(2) The Minister may by written order terminate the appointment of an appointee as the Financial Services Manager if,

(a) the Minister has advised the appointee that the Financing Plan is either inconsistent with or is being implemented in a manner that is inconsistent with the principles set out in section x;

(b) the appointee has been afforded a reasonable opportunity to consider and address the inconsistency; and

(c) the appointee is unwilling or unable to address the inconsistency to the satisfaction of the Minister.

Replacement

(3) Upon terminating an appointment, the Minister may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment asset owner.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section XX.

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2. Providing information to electricity vendors, including the IESO, in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate the fair allocation amount for the purposes of,

(a) fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of each reference period; and

(b) aligning funding obligations that may be incurred during each reference period with the allocation of the estimated clean energy costs and estimated clean energy benefits across present and future generations of specified consumers.

Amount

(1.1) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which the estimated [clean energy costs] [clean energy benefits] to be allocated to specified consumers in respect of the reference period exceeds the estimated amount of [the global adjustment] that would be borne by the specified consumers in respect of clean energy costs [in the absence of this Act].

2. An allocable portion of the value of any fair adjustment, determined in accordance with subsection (3).

Principles

(2) In calculating the fair allocation amount [or in developing the fair allocation calculation?], subject to subsection (3), the Financial Services Manager shall have regard to the following principles:

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1. Clean energy costs allocated to the specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits attributed to the specified consumers in respect of a reference period should be determined based on *[Insert principles]*.

3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers for each reference period.

    iii. The expected electricity consumption rates for each reference period.

Allocation of fair adjustment

(3) If, before the Financial Services Manager has calculated the fair allocation amount in respect of a reference period, a fair adjustment has been made under Part II in respect of the reference period, the calculation shall include a portion of the value of the fair adjustment in the fair allocation calculation for each future reference period.

Amendments to the fair allocation calculation

(4) The Financial Services Manager may amend the fair allocation calculation from time to time, as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Submission of fair allocation to Minister

(5) The Financial Services Manager shall provide to the Minister the fair allocation calculation and any amendments to the fair allocation calculation.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

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FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare and provide to the Minister a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred or potential transfers should be made for the purposes of this Act.

Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align the expected finance amount determined under Schedule 1 that would become due and payable during a reference period with the fair allocation amount determined for the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment for the reference period.

2. Incurrences and transfers should be implemented in a manner that, as the Financial Services Manager considers to be reasonable, is cost effective and reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

[Note for reference: List of items for consideration in regulation: (a) anticipated IESO funding shortfalls and related transfer amounts; (b) the maturities of funding obligations; (c) the availability of refinancings, redemption opportunities and liquidity terms and conditions in order to achieve the objective contemplated in section X(1)(a); (d) the availability of currency and interest rate hedging facilities for the purpose of mitigating any differences between the expected finance amounts becoming due and payable during a reference period and the fair allocation amount for the reference period; (d) the amount and potential variability of interest rates and related financing costs; (e) available capital markets in which funding obligations may be incurred.]

Amendments to approved plan

(3) The Financial Services Manager may amend the Financing Plan at any time, without the approval of the Minister, subject to the requirements set out in this section.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in a clean energy adjustment for the reference period unless,

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(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount for the reference period and the amount of the fair adjustment for the reference period].

Confidentiality of plan

(4) The Financing Plan is deemed to be a record subject to section 17 of the *Freedom of Information and Protection of Privacy Act.*

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations and make transfers in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, section [paramountcy of funding obligations] applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish one or more financing entities that may incur funding obligations and make transfers.

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Effect of amendment to Fair Allocation Plan

(4) No funding obligation incurred and no transfer made by the Financial Services Manager shall be affected by any inconsistency with the Financing Plan, including any inconsistency with the principles set out in section X.

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PART V
THE REGULATORY ASSET

Interpretation, portion of regulatory asset

18xx. If a transfer under this Part provides for the transfer of a portion of the regulatory asset, any references in this Part to the regulatory asset are deemed to be references to the portion of the regulatory asset transferred.

[Note: This is meant to assist with clarity in the subsequent provisions.]

Variance account

19xx. (1) The Board shall issue an accounting order to authorize the IESO to do the following:

1. Create a variance account for the purposes of this Act.

2. Record the IESO funding shortfall in the variance account from time to time.

3. Recover the IESO funding shortfall in accordance with section X and the regulations.

No hearing

(2) The order of the Board shall be made in writing and without holding a hearing.

No appeals, etc.

(3) No appeal lies from the order of the Board.

IESO funding shortfall

20xx. (1) The IESO shall determine the IESO funding shortfall for each month in the following manner:

1. Calculate the sum of all invoice amounts issued to specified consumers for the month if Part II of this Act did not apply.

2. Calculate the sum of all invoice amounts issued to specified consumers for the month.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1, and make any other adjustments as may be prescribed.

Same

(2) To the extent that the IESO funding shortfall for any month is based on an estimate of the electricity used by specified consumers, the IESO shall record an

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adjustment in the variance account in the following month to reflect the difference between the estimate and the electricity actually used by specified consumers.

Recording of IESO funding shortfall

(3) IESO shall record the IESO funding shortfall from time to time, including adjustments resulting from the exercise of the right of recovery under section 21 and any transfer under section 22, in the variance account.

Recording determinative

(4) A recording of the IESO funding shortfall in the variance account is determinative of the amount of IESO funding shortfall at the time of the recording.

Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the IESO funding shortfall.

Same, restrictions

(2) The IESO's right to recover the IESO funding shortfall under subsection (1) is subject to the following:

1. The IESO shall not be entitled to collect the IESO funding shortfall from specified consumers before May 1, 2022.

2. The process by which the IESO may recover the IESO funding shortfall shall be established by the Board, having regard to the amount of the IESO funding shortfall from time to time and the [fair allocation calculation].

3. Such other restrictions as may be prescribed.

Transfer of regulatory asset

22xx. (1) The IESO may transfer all or a portion of the regulatory asset to any financing entity under the Financing Plan, which transfer creates the investment asset.

Same

(2) Upon receipt of any payment in consideration for the transfer,

(a) the IESO shall record the payment as a reduction of the IESO funding shortfall in the variance account; and

(b) unless otherwise provided for in this Act, the IESO shall have no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

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Same

(3) Upon transfer, the financing entity becomes an investment asset owner and acquires an investment interest.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment asset owner of the regulatory asset, and the investment asset created by the transfer shall be immediately vested in the transferee.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Interpretation, investment asset

24xx. If a transfer under this Part provides for the transfer of an investment asset, any references in this Part to the investment interest are deemed to be references to the specific investment interest transferred.

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests without duplication:

1. The right to impose, bill, invoice, collect and receive the clean energy adjustment from specified consumers, including the right to determine the amount of the clean energy adjustment in accordance with this Act.

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2. The right to receive and collect all amounts in respect of the clean energy adjustment that are imposed, billed and invoiced under this Act, including any amounts that all amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge, bill and invoice the clean energy adjustment.

5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of the clean energy adjustment.

6. All rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise the regulatory asset owner's regulatory asset.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

No set off, etc.

(2) The investment asset shall not be set off or reduced by any person in any circumstance, including,

(a) by a consumer, an electricity vendor, an agent of the investment asset owner or an owner of distribution system assets in the Province;

(b) in connection with any default, bankruptcy, reorganization or other insolvency proceeding of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

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Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with section [xx] of the *Personal Property Security Act*.

Collective action required

(4) If the investment asset owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment asset owner collectively and in coordination with all other investment asset owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment asset owner as a collective in accordance with its terms. [Note: Successors may need to be addressed here.]

Transfer of investment interest

26xx. An investment asset owner may transfer all or a portion of its rights and interests in an investment interest to any other investment asset owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the owner of the investment interest acquired a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment asset owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment asset owner shall have priority over any liens in favour of such other persons.

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Investment asset owner may grant security interest

28xx. (1) An investment asset owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property, except as otherwise provided for in this section, and any granting of a security interest by the owner of an investment interest to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment asset owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any [investment asset account] or other account of any electricity vendor, the IESO, an agent of an electricity vendor or the IESO or other person who may have commingled such revenues or other proceeds with other funds.

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PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment asset owner or a secured party, order the sequestration and payment of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment asset owner or secured party by any person or entity authorized to collect the clean energy adjustment, defaults on any required remittance of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Same

(3) An order under subsection (1) shall remain in full force and effect despite any bankruptcy, reorganization or other insolvency proceedings with respect to the person or entity who is subject to the order.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

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No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required with respect to the actions to be taken in compliance with this Act, including actions to be taken under the Financing Plan or in relation to the establishment of the Fair Allocation Plan.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under this section unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[7]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations,

(a) defining any term used in this Act….

(b) prescribing types of payment obligations that constitute funding obligations;

(a) governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment.

(b) governing the inclusion of adjustments under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments.

[7] Note - see s. 51 of the Electricity Act, 1998

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[Note: reg-making powers to be dealt with in subsequent draft]

PART VII
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under that Act and engaging in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including the following:

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1. Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by the *Ontario Fair Hydro Plan Act, 2017* subject to the right of reimbursement from amounts available to the financing entity.

2. Preparing reports on behalf of the financing entity.

3. Enforcing the rights of the financing entity.

4. Signing offering documents as sponsor or otherwise on behalf of the financing entity.

5. Exercising the powers and performing the duties of the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*

6. Issuing non-equity securities in Ontario Power Generation Inc. or on if its subsidiaries, for the purpose of raising funds to acquire debt or equity interests in a financing entity whose activities are limited to the incurrence of funding obligations pursuant to the *Ontario Fair Hydro Plan Act, 2017*.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

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[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [TBD - language should link up with language from new Act.]

205x. Section 70 of the Act would be amended by adding the following subsection

[Note - still need to draft new subs. 70 (2.1)]

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

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SCHEDULE 1
ESTIMATED FINANCE AMOUNT

Estimated finance amount

1. The estimated finance amount for a reference period shall be determined by estimating, prior to the start of a reference period, the sum of the following:

1. The sum of all amounts that are payable during the reference period by or on behalf of the investment asset owners to satisfy an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase, of all or a portion of the amount advanced to the owners under a funding obligation, excluding any payment made by applying the proceeds of a refinancing.

2. The sum of all funding costs for the reference period, determined as follows:

    i. Calculate the aggregate of all interest, scheduled principal and other periodic finance charges accruing, due and becoming payable or paid by or on behalf of investment assets owners during the reference period in respect of all funding obligations, including such amounts as may be prescribed.

    ii. Calculate the sum of the aggregate of all amounts received by or on behalf of investment asset owners during the reference period in respect of all funding obligations and such other amounts as may be prescribed.

    iii. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

3. The sum of all amounts payable during the reference period by or on behalf of investment asset owners to redeem, prepay or repurchase a funding obligation, including any premium, make-whole or other amount becoming payable under a funding obligation to give effect to the redemption, prepayment or repurchase.

4. The balance of the finance reserve at the end of the reference period, as determined under section 3 to this Schedule.

5. The sum of any other amounts payable during the reference period by or on behalf of investment asset owners that were incurred or committed to directly or indirectly in connection with the incurrence of funding obligations under the Financing Plan during the reference period, which may include such amounts as may be prescribed.

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Funding costs

2. For the purposes of paragraph 2 of section 1 to this Schedule, the funding costs for a reference period are determined by taking the following steps:

Finance reserve balance

3. (1) For the purposes of paragraph 4 of section 1 to this Schedule, the balance of the finance reserve at the end of the reference period is determined by taking the following steps:

1. Calculate the sum of all amounts deposited by or on behalf of investment asset owners during the reference period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of funding obligations or for related contingencies specified in the Financing Plan.

2. Calculate the sum of all amounts withdrawn by or on behalf of investment asset owners during the reference period from deposits previously made as described in paragraph 1.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

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From:	Whitfield, Tobias P. (MOF)
To:	Mike Manning; Gadi Mayman; Anna Strathy; Ronald Kwan; John Kim; Malle Hanslep (MOF); Ken Kandeepan; Michael Waterston (MOF)
Subject:	Fw: Ontario Fair Hydro Plan
Date:	Wednesday, April 26, 2017 4:23:18 PM
Attachments:	Fair Hydro Plan Act (April 26 2017) Consultation v4.docx

Please see attached the latest draft of the legislation. My understanding is that there is only room to make small tweaks based on the timeline right now.

Please note that Energy has not removed the exemption from section 28 in this draft. I am not sure if there has been any further discussion on that subject, but I think that if we want to push back on this issue it needs to be communicated as soon as possible.

Also, there is new language around the guarantee, but it does not contemplate the current plan to have both Ministers sign the guarantee. I have let Energy Legal know that this would make sense to change.

Best
Toby

Tobias Whitfield
Counsel, Legal Services Branch
Ministry of Finance
777 Bay Street, 11th Floor
Toronto, ON, M5G 2C8
tobias.whitfield@ontario.ca
Phone: 416-325-1456
From: Rehob, James (ENERGY) <James.Rehob@ontario.ca>
Sent: Wednesday, April 26, 2017 3:19 PM
To: Whitfield, Tobias P. (MOF)
Subject: FW: Ontario Fair Hydro Plan

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April 26, 2017

Hi, Toby. I am pleased to attach the most recent version of the draft legislation pertaining to the electricity rate reductions and intergenerational cost transfer.

Thanks for your help on all of this, and note that this version does not include amendments to EA ss.89 and 90 (PILS amendments). Those discussions are ongoing between MOF policy, OPG/Tory's and ENERGY is awaiting those discussions to close before finalizing the legislation on these matters.

Best regards,

James

James P. H. Rehob
Senior Counsel
Ministry of the Attorney General
Legal Services Branch
MAG Civil Law Division
Ministry of Energy, Ministry of Economic Development and Growth, Ministry of Research, Innovation and Science, Ministry of Infrastructure, Accessibility Directorate of Ontario
56 Wellesley Street West

Toronto, ON M7A 2E7
Tel: 416-325-6676
Fax: 416-325-1781
james.rehob@ontario.ca<mailto:james.rehob@ontario.ca>

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Version 4

This confidential draft document is provided for discussion purposes only. It should not be construed as representing the position adopted by the Government of Ontario on any of the topics included or not included in this document. The notes included in this document are intended only to help facilitate a discussion of the topics to which they relate. Any potential legislation is subject to the approval of the Ontario Legislature.

A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

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A proposal to create Legislation.

An Act to provide for the fair allocation of costs of electricity over time, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

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Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1] These commitments can only be achieved if costs are shared fairly among consumers, today and in the future.

Electricity rates have risen for two key reasons. First, decades of under-investment in the electricity system resulted in the need to invest more than $50 billion in generation, transmission and distribution assets to ensure the system is clean and reliable. Second, the decision to eliminate Ontario's use of coal and produce clean, renewable power has created additional costs.

The actions taken to achieve a clean, modern and reliable electricity system have resulted in significant costs to consumers today. The burden of financing these system improvements and funding key programs has unfairly fallen almost entirely on the shoulders of today's consumers.

The Government of Ontario is committed to ensuring that the costs of financing these investments and the associated charges to consumers are allocated fairly among present and future generations of consumers.

Recognizing that the electricity infrastructure that has been built and the policy decisions that have been made will create benefits for years to come, costs should be allocated fairly over time, so that consumers in the future pay their fair share for the benefits that they receive from the investments already made.

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")

"clean energy benefits" means the value of the benefits determined to be derived by or accruing to the specified consumers as a result of the clean energy initiative, including as a result of clean energy costs; ("French")

"clean energy costs" means the value of the costs allocated to specified consumers as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated amounts to be paid or reflected by the IESO in adjustments made under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management,

(iii) energy storage,

(iv) energy efficiency,

(v) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(vi) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

(b) such other estimated costs as may be prescribed; ("French")

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"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[2] means,

(a) a licensed distributor,

(b) a licensed retailer,

(c) the IESO in circumstances where the IESO directly invoices a specified consumer, or

(d) such other person as may be prescribed; ("French")

"fair allocation amount" means the amount determined in under section 15xx;

"financing entity" means an entity established or caused to be established under subsection 17xx (3); ("French")

"Financial Services Manager" means the Financial Services Manager appointed under section 13xx; ("French")

"Financing Plan" means the plan prepared under section 16xx, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means,

(a) a payment obligation incurred in connection with the transfer of a regulatory asset or the refinancing of an existing funding obligation, or

(b) a payment obligation that meets such other criteria as may be prescribed; ("French")

[2] FLS - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means the amount determined under section 20xx; ("French")

"investment asset" means the rights and interests described in section 22xx; ("French")

"investment interest owner" means a financing entity that has acquired and holds an investment interest; ("French")

"investment interest" means,

(a) an ownership interest in the investment asset, and

(b) in circumstances where the ownership interest is transferred, the rights and benefits specified in the agreement under which the interest is transferred; ("French")

"invoice amount" means, in respect of an invoice period, the sum of the amounts set out in subsection (2.1) in relation to the provision of electricity in Ontario to a specified consumer; ("French")

"invoice period" means the period in respect of which an invoice amount applies, as specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"Ontario Power Generation Inc." means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998; ("Ontario Power Generation Inc.")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

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(a) the period beginning on May 1, 2017 and ending on October 31, 2017, and

(b) during the period beginning on November 1, 2017 and ending on April 30, 2047,

(i) every six-month period following the period mentioned in clause (a); or

(ii) any period shorter than six months, as may be prescribed; ("French")

"refinancing" means, subject to the regulations, a redemption, repayment or repurchase of a funding obligation; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right and interest established under section 21xx; ("French")

"specified consumer" means,

(a) a person who has an account with an electricity vendor for the supply of electricity in Ontario and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

"transfer" means [TBD]; ("French")

"unit sub-metering" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("activités liées aux compteurs divisionnaires d'unité")

"unit sub-meter provider" has the same meaning as in the *Energy Consumer Protection Act, 2010*; ("fournisseur de compteurs divisionnaires d'unité")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

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2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

Invoice amount

(2.1) Subject to the regulations, the invoice amount for a specified consumer in respect of an invoice period includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following amounts in respect of the invoice period:

    i. The commodity price of the electricity used.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998* and in effect on April 30, 2017.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

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iv. The amount of any harmonized sales tax payable by the consumer under Part IX of the *Excise Tax Act* (Canada) in respect of the amounts mentioned in subparagraphs i, ii and iii;

v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO or other prescribed entity, such amounts as may be prescribed in respect of the invoice period. ("French")

Same, exclusions

(2.2) Subject to the regulations, an invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices in respect of previous invoice periods.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

   i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

   ii. A charge labelled as a "specific service charge" or "retail service charge".

   iii. A rate rider [of the prescribed type or class].

5. Any other prescribed amounts.

Effect of invalidity, etc.[3]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if one or more provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

[3] FLS: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect the validity or enforceability of a funding obligation incurred under this Act before the day that the provision is held to be invalid or ceases to be in effect, or any rights or obligations associated with the funding obligation.

Purpose

3xx. (1) The purposes of this Act are,[4]

(a) to ensure that clean energy costs are fairly allocated among present and future specified consumers and reflect the fair allocation; and

(b) to recognize that clean energy benefits have accrued and will accrue over time and will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of amounts in respect of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the clean energy adjustment determined under this Act or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding the performance of IESO or electricity vendors under this Act or similar transactions.

[4] FLS: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Guarantee, indemnification

(4) The Lieutenant Governor in Council may by order,

(a) authorize the Minister of Finance, on behalf of the Province,

(i) to agree to guarantee or indemnify any debts, obligations, securities or undertakings associated with an investment interest, and

(ii) to determine terms and conditions and the amount on which the guarantee or indemnity will be given;

(b) impose terms and conditions, as it considers advisable, on which the Minister of Finance may, on behalf of the Province, agree to guarantee or indemnify as described in subclause (a) (ii); and

(c) specify a maximum liability for the guarantee or indemnity.

PART II
FAIR ADJUSTMENT OF ELECTRICITY RATES

Definitions

6xx. In this Part,

"effective date" means the date determined under section 6.5xx; ("French")

"RPP rate" means the rate determined by the Board under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*, which rate is commonly referred to as the Regulated Price Plan"; ("French")

"specified RPP consumer" means a specified consumer who meets the following criteria:

1. The consumer is a member of the class of consumers prescribed by the regulations made under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act.

2. The consumer is subject to the RPP rate. ("French")

Specified RPP consumer, first fair adjustment

6.1xx (1) The rate for electricity payable by a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate required for a specified RPP consumer who meets the prescribed criteria to receive a monthly invoice

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amount that is 25 per cent lower than the monthly invoice amount for that consumer under the comparison rate described in subsection (2).

Comparison rate

(2) The comparison rate is the rate that would be effective May 1, 2017, determined by the Board solely using the method prescribed by the regulations made under clause 79.16 (1) (b) of the *Ontario Energy Board Act, 1998*.

Same

(3) For the purposes of subsection (2), the applicable method is the method on the day this section comes into force.

Specified consumers (non-RPP), first fair adjustment

6.2xx The rate for electricity payable by a specified consumer who is not a specified RPP consumer for the period beginning on the effective date and ending on April 30, 2018 is the rate that would be necessary in order for [the monthly global adjustment rate] in respect of a specified consumer who is not a specified RPP consumer (RPP) and who meets the prescribed criteria to be reduced by the same amount as the difference between the comparison rate referred to in subsection 6.1xx (2) and the rate determined under subsection 6.1xx (1).

Determination by Board

6.3xx The Board shall determine the rates mentioned in sections 6.1xx and 6.2xx no later than seven business days after the day this section receives Royal Assent.

Implementation of rates

6.4xx Each electricity vendor, [specified consumer who provides electricity to a sub-meter customer and unit sub-meter provider who provides unit sub-metering for a specified consumer] shall, no later than seven business days after the day on which the Board determines the rates under section 6.3xx, adapt is billing practices and invoices to reflect the new rates.

Effective date

6.5xx The rates determined under section 6.3xx are effective on the earlier of the following days:

1. The first day of the month immediately following the last day of the seven-day period referred to in section 6.4xx.

2. July 1, 2017.

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Transition

6.6xx (1) This section applies if an electricity vendor, specified consumer or unit sub-meter provider is unable to comply with section 6.4xx for one of the following reasons:

1. There are fewer than seven days between the day of the Board's determination of rates under section 6.3xx and the effective date.

2. Technical or operational reasons.

Same

(2) In the circumstances described in subsection (1), the electricity vendor, specified consumer or unit sub-meter provider shall,

(a) adapt its invoices as soon as possible and, in any event, no later than August 1, 2017; and

(b) ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate determined by the Board receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Subsequent fair adjustments

7xx. The Lieutenant Governor in Council may make regulations prescribing the methodology to be applied by the Board to determine rates for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

Sub-meter customers

7.1xx A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the applicable rate determined under this Part.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay

8xx. (1) Upon receipt of an invoice that includes an amount in respect of the clean energy adjustment, a specified consumer shall pay the amount to the electricity vendor, as agent of the investment interest owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

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Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment was determined in a manner that was inconsistent with this Act; and

(b) whether the amount payable in respect of the clean energy adjustment relates to funding obligations that were incurred in a manner that was not in material conformity with the Financing Plan.

Indebtedness of specified consumer

(4) An unpaid amount that is required to be paid by a specified consumer under this section constitutes indebtedness of the specified consumer to each investment interest owner to the extent of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer.

Recovery from sub-meter consumers

(6) A specified consumer who provides electricity to a sub-meter customer may recover amounts in respect of the clean energy adjustment payable under this section from each sub-meter customer on a pro rata basis.

Irrevocability of amount

9xx. (1) An amount in respect of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness resulting from the clean energy adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a clerical, typographical or calculation-related error by the electricity vendor.

Determination of clean energy adjustment
Financial Services Manager to determine

10xx. (1) The Financial Services Manager shall determine the clean energy adjustment payable by all specified consumers in respect of each month in a reference period by adding the estimated finance amount in respect of the reference period to the true up amount in respect of the reference period.

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Estimated finance amount, true up amount

(2) The estimated finance amount and the true up amount shall be determined in accordance with the regulations.

Regulations re true up amount

(3) The regulations under subsection (2) shall have regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

    i. differences between the estimated and actual finance amount for the immediately preceding reference period,

    ii. differences between amounts invoiced and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

    ii. variations in billings due to variations in electricity consumption.

Financial Services Manager to notify Board

(4) The Financial Services Manager shall, in accordance with the regulations, notify the Board of the clean energy adjustment and such other information related to the determination of the clean energy adjustment as may be prescribed.

Board to determine rates

(5) The Board shall, in accordance with the regulations, determine the rate at which specified consumers are invoiced to recover the clean energy adjustment in respect of the reference period.

IESO to receive amounts

11xx. (2) The IESO shall, as an agent of the investment interest owners, receive amounts in respect of the clean energy adjustment paid to it from electricity vendors in accordance with the regulations and the market rules made under section 32 of the *Electricity Act, 1998*.

Account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of receiving those amounts:

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1. Amounts described in subsection 11xx (2).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8xx (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment interest owner, be received and held in trust by the IESO for the investment interest owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment interest owners in accordance with the regulations.

Electricity vendor to invoice specified consumers

12xx. (1) Each electricity vendor shall issue an invoice to each of its specified consumers for the amount payable by the consumer in respect of the clean energy adjustment, as determined by applying the rate set by the Board under subsection 10xx (2) and in accordance with the regulations.

Electricity vendor to report

(1.1) Each electricity vendor shall, in accordance with the regulations, promptly report to the IESO the total amount invoiced to its specified consumers in respect of the clean energy adjustment, the amount collected and such further information as may be prescribed.

Electricity vendor to collect

(2) Each electricity vendor shall, as agent of the investment interest owners, collect amounts in respect of the clean energy adjustment from specified consumers in accordance with the regulations.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges in respect of the same period.

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Held in trust

(4) Payments received by an electricity vendor from or on behalf of specified consumers shall, until paid to or for the benefit of the investment interest owner in accordance with subsection (5), be received by and held by each electricity vendor in trust for the benefit of the investment interest owners.

Remittance to IESO

(5) Each electricity vendor shall remit amounts described in subsection (5) to the IESO for the benefit of the investment interest owners in accordance with the regulations.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) Subject to subsection (2), Ontario Power Generation Inc. is appointed as the Financial Services Manager for the purposes of this Act.

Replacement

(2) The Minister may terminate an appointment of a Financial Services Manager and may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment interest owners.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section 10xx.

2. Providing information to the IESO in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

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FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period, having regard to the need to align that amount with the finance amount payable during the reference period, for the purpose of fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of the reference period.

Timing of calculation

(1.1) The Financial Services Manager shall calculate a fair allocation amount in respect of each reference period before any funding obligation is incurred [by a financing entity during the reference period].

Amount

(1.2) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which, if this Act had not been enacted, the estimated clean energy costs and estimated clean energy benefits allocated to specified consumers in respect of the reference period would have exceeded the estimated amount of the adjustments provided for under section 25.33 of the *Electricity Act, 1998* and the regulations made under that provision that would have been borne by the specified consumers in respect of clean energy costs for the reference period.

2. A portion of the value of any fair adjustment that has been made under Part II in respect of any previous reference period.

Principles

(2) In calculating the estimated clean energy costs and estimated clean energy benefits to be allocated to specified consumers in respect of a reference period, the Financial Services Manager shall [comply with the regulations and] have regard to the following principles:

1. Clean energy costs allocated to specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits allocated to the specified consumers in respect of a reference period should be determined in accordance with the regulations.

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3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers in respect of each reference period.

    iii. The expected electricity consumption rates in respect of each reference period.

Method

(3) The Financial Services Manager shall calculate a fair allocation amount in accordance with such methods as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Notification to Minister

(4) The Financial Services Manager shall notify the Minister of the methods used to calculate the fair allocation amount and any changes to those methods.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred for the purposes of acquiring an investment interest in accordance with this Act.

Plan to be provided to Minister

(1.1) The Financial Services Manager shall provide the Financing Plan to the Minister.

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Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align with the estimated finance amount, as determined in accordance with the regulations, that would, subject to any refinancing, become due and payable during a reference period with the fair allocation amount determined in respect of the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment in respect of the reference period.

2. Incurrences should be implemented in a manner that, in the opinion of the Financial Services Manager, is reasonable, cost effective and that reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in amounts payable in respect of the clean energy adjustment in respect of the reference period unless,

(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount in respect of the reference period and the amount of the fair adjustment in respect of the reference period].

Other reports

(3.1) The Financial Services Manager shall submit to the Minister such reports and information as the Minister may require from time to time and shall, if required by the Minister to do so, examine, report and advise on any question relating to the Financing Plan.

Confidentiality

(5) The following are deemed to be records subject to clauses 18 (1) (c) and (d) of the *Freedom of Information and Protection of Privacy Act*:

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1. The Financing Plan.

2. Reports referred to in subsection (3.1).

3. Any other document that would reveal information contained in the Financing Plan or the reports.

Amendments to plan

(6) The Financial Services Manager may amend the Financing Plan at any time.

Same

(7) In the event that the Financing Plan is amended, any reference in this section to the Financing Plan is deemed to be a reference to the plan as amended.

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, subsection 17xx (5) applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish or cause to be established one or more financing entities that may incur funding obligations.

Prohibition

(3.1) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, Ontario Power Generation Inc., the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation or other agreement.

Effect of amendment to fair allocation amount

(4) Each funding obligation incurred and each transfer made by a financing entity is deemed to be consistent with the Financing Plan and [the fair allocation amount].

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PART V
THE REGULATORY ASSET

IESO funding shortfall

20xx. (1) The IESO funding shortfall for each month shall be determined in accordance with the regulations.

Electricity vendors to provide information

(2) Electricity vendors shall provide to IESO such information as IESO may reasonably request for the purposes of determining the IESO shortfall under subsection (1) and such further information as may be prescribed.

Same

(3) IESO may rely on information provided by electricity vendors for the purposes of the determination under subsection (1).

Variance account to be established, maintained

20.1xx (1) The IESO shall establish and maintain a variance account for the purposes of this section.

Recording in variance account

(2) The IESO shall record the following in the variance account:

1. The amount of the IESO funding shortfall for each month.

2. All payments received by the IESO resulting from the exercise of the right of recovery under section 21xx and any transfer under section 22xx.

3. Such other adjustments as may be prescribed.

Recording determinative

(3) Subject to any finding of [manifest error], a recording by the IESO in the variance account of the balance is, as of the time of the recording, determinative of the balance at the time.

Rights of investment interest owner

(4) No change made by IESO to the balance in the variance account shall, if the previous balance was relied upon by an investment interest owner in the context of a transfer under section 22x, affect the rights of the investment interest owner acquired under the transfer.

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Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the balance recorded in the variance account from specified consumers.

Limitation

(2) Despite subsection (1), the IESO shall not be entitled to collect all or part of the balance recorded in the variance account from specified consumers before May 1, 2022.

Board to set rates

(3) The Board shall, from time to time, determine and set rates payable by specified consumers to allow for IESO to recover the balance recorded in the variance account.

Same, limitations

(4) The Board's powers under subsection (3) shall be exercised in accordance with the regulations.

Transfer of regulatory asset

22xx. (1) The IESO may from time to time transfer all or a portion of the regulatory asset to any financing entity.

Same

(2) Upon receipt by IESO of payment in consideration of a transfer of all or a portion of the regulatory asset, the transfer shall be valid and enforceable against the IESO and the IESO shall retain no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

Same

(3) Upon transfer, the financing entity acquires an investment interest and becomes an investment asset owner.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment interest owner of the regulatory asset.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

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Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Effect of transfer

24xx. (1) The first transfer of the regulatory asset or a portion of it creates the investment asset.

Same

(2) Upon any transfer of all or a portion of the regulatory asset to a financing entity, the investment asset resulting from the transfer is immediately vested in the financing entity, free and clear of any adverse claim, and the financing entity becomes an investment interest owner and acquires an investment interest**.**

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests of investment interest owners:

1. The right to impose, invoice, collect, receive and recover amounts in respect of the clean energy adjustment from specified consumers, including the right to determine the clean energy adjustment in accordance with this Act.

2. The right to receive, collect and recover amounts in respect of the clean energy adjustment that are imposed, invoiced and recoverable under this Act, including any amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge and invoice for amounts in respect of the clean energy adjustment.

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5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of amounts in respect of the clean energy adjustment.

6. All rights of any kind related to any of the other property rights or interests that comprise the investment interest.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether it is invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

Not affected by failure to impose etc. clean energy adjustment

(1.1) An investment interest is not affected by any failure to impose, attribute, invoice, accrue or collect amounts in respect of the clean energy adjustment.

No set off, etc.

(2) The investment asset shall not be set off,

(a) by a consumer, an electricity vendor, an agent of the investment interest owner or an owner of distribution system assets in the Province;

(b) in connection with any default of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with Part III of this Act.

Collective action required

(4) If the investment interest owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment interest owner collectively and in coordination with all other investment interest owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment interest owner as a collective in accordance with its terms.

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Transfer of investment interest

26xx. An investment interest owner may transfer all or a portion of its rights and interests in an investment interest to any other investment interest owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the investment asset owner a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment interest owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment interest owner shall have priority over any liens in favour of such other persons.

Investment interest owner may grant security interest

28xx. (1) An investment interest owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property,

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except as otherwise provided for in this section, and any granting of a security interest by the investment interest owner to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment interest owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any ccount of any electricity vendor, an agent of an electricity vendor or other person who may have commingled such revenues or other proceeds with other funds.

Notice required

(7) The secured party shall be entitled to exercise the rights of an investment interest owner only after the secured party has given notice of the enforcement of its security interest to the IESO.

Definition

(8) For the purposes of this section, a security interest is perfected when it is perfected as described in the *Personal Property Security Act*.

PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

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Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment interest owner or a secured party, order the sequestration and payment of amounts in respect of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment interest owner or secured party by any person or entity authorized to collect amounts in respect of the clean energy adjustment, including defaults on any required remittance of amounts in respect of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required to be taken under the Financing Plan or in relation to the determination of the fair allocation amount.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

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Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under section 5xx unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[5]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations in respect of the following matters:

1. [6]Governing anything that is required or permitted to be prescribed or that is required or permitted to be done by, or in accordance with, the regulations or as authorized, specified or provided in the regulations.

2. Defining, for the purposes of a regulation, words and expressions used in this Act that are not defined in the Act.

x. Prescribing types of payment obligations that constitute funding obligations;

x. governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment;

x. governing the inclusion of information under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments;

x. governing the inclusion of information about the clean energy adjustment and any other matters provided for under this Act on invoices issued to specified consumers, including the form that the information must take and the form of

[5] FLS - see s. 51 of the Electricity Act, 1998

[6] FLS - see s. 78 (1) of the Climate Change Mitigation and Low-carbon Economy Act, 2016 - paras. 1 and 2.

Confidential Draft

the invoices and any notice to be provided to the specified consumer under this Act[7];

x. prescribing the time within which any action required by this Act may be required to be done;

x. Providing for such other matters as the Lieutenant Governor in Council considers advisable to carry out the purpose of this Act.

PART VII[8]
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* is amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

[7] FLS - see *OEBA s.79.17 and 88(1)(z.11) and (z.12)*
[8] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

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200.1xx (1) Subsection 25.33 (1) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(1.1) Subsection 25.33 (2) of the Act is amended by striking out "and" at the end of clause (a) and by adding the following clauses:

(c) amounts paid to or received from a [prescribed] financial services entity or [a financing entity prescribed under] the *Ontario Fair Hydro Plan Act, 2017* and any related amounts; and

(d) amounts collected from consumers who are [specified consumers within the meaning of] the *Ontario Fair Hydro Plan Act, 2017* in respect of the clean energy adjustment and any related amounts.

(2) Subsection 25.33 (3) of the Act is amended by adding the following paragraph:

4. A consumer who is,

   i. a [specified consumer within the meaning of] the *Ontario Fair Hydro Plan Act, 2017*, or

   ii. prescribed by the regulations [made under the *Ontario Energy Board Act, 1998]*.

(3) Clause 25.33 (4) (b) of the Act is amended by adding "or as may be required under a regulation made under the *Ontario Fair Hydro Plan Act, 2017* or the *Ontario Energy Board Act, 1998*" at the end.

(4) Subsection 25.33 (5) of the Act is amended by adding "or under the *Ontario Fair Hydro Plan Act, 2017*" at the end

201x. Section 53.1 of the Act is amended by adding the following subsections:

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Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and engaging in activities to facilitate the implementation of that Act, including entering into contracts and undertakings on behalf of financing entities, subject to the right to be paid by the financing entities for those services.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create or invest in one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act, the *Business Corporations Act* or any other Act,

(a) the assets and liabilities of a special purpose financing entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries; and

(b) the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries shall not form part of the assets and liabilities of a financing entity.

Definition, financing entity

(1.4) For the purposes of this section, "financing entity" has the same meaning as in the *Fair Hydro Plan Act, 2017*.

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* is amended by adding the following paragraph:

6. To facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*.

205x. Subsection 70 (2.1) of the Act is amended by adding the following paragraph:

4. The licensee is required to comply with the *Ontario Fair Hydro Plan Act, 2017*.

206x. Section 78.1 of the Act is amended by adding the following subsection:

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Same, limitation re Ontario Power Generation Inc.

(3) The determination of a payment to Ontario Power Generation Inc. under this section shall not include any consideration of amounts related to activities of Ontario Power Generation Inc. carried out in relation to the *Ontario Fair Hydro Plan Act, 2017*.

Same

(3.1) The amounts referred to in subsection (3) include, without limitation, the following:

1. Amounts related to the appointment of Ontario Power Generation Inc. as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

2. Amounts related to the charging of fees for performing duties as the Financial Services Manager.

3. Amounts related to exercising the powers and performing the duties of the Financial Services Manager.

4. Amounts related to the consolidation of the assets and liabilities for accounting purposes of any special purpose financing entities established under and for the purposes of that Act.

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

Confidential Draft

From:	Ronald Kwan
To:	John Kim; Emily Kerr
Cc:	Gavin He
Subject:	Fw: Rate Mitigation Implementation Meeting - April 6, 2017
Date:	Thursday, April 06, 2017 8:30:11 PM
Attachments:	Action Items - April 6.docx ATT00001.htm

From: Gadi Mayman
Sent: April 6, 2017 8:08 PM
To: Ronald Kwan; Mike Manning; Ken Kandeepan
Cc: Anna Strathy; Gavin He
Subject: Fwd: Rate Mitigation Implementation Meeting - April 6, 2017

Begin forwarded message:

> **From:** "Katona, Keley (ENERGY)" <Keley.Katona@ontario.ca>
> **Date:** April 6, 2017 at 6:24:56 PM EDT
> **To:** "Hume, Steen (ENERGY)" <Steen.Hume@ontario.ca>, "Sermat-Harding, Kaili (ENERGY)" <Kaili.Sermat-Harding@ontario.ca>, "Reid, Michael (ENERGY)" <Michael.Reid@ontario.ca>, "Calwell, Carolyn (ENERGY/MEDEI/MRI)" <Carolyn.Calwell@ontario.ca>, "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com)" <jeffrey.lyash@opg.com>, "HARTWICK Ken -FINANCE (ken.hartwick@opg.com)" <ken.hartwick@opg.com>, Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>, "Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca)" <maryanne.aldred@ontarioenergyboard.ca>, "Campbell, Bruce (bruce.campbell@ieso.ca)" <bruce.campbell@ieso.ca>, "Kim Marshall (Kim.Marshall@ieso.ca)" <Kim.Marshall@ieso.ca>, "Thompson, Scott (MOF)" <Scott.Thompson@ontario.ca>, "Angus, Helen (TBS)" <Helen.Angus@ontario.ca>, "Davidson, Steven (CAB)" <Steven.Davidson@ontario.ca>, 'Martine Band' <Martine.Band@ontarioenergyboard.ca>, 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>, "Mayman, Gadi (OFA)" <Gadi.Mayman@ofina.on.ca>, "LEE John -TREASURY" <john.s.lee@opg.com>
> **Cc:** "Imbrogno, Serge (ENERGY)" <Serge.Imbrogno@ontario.ca>, "Teliszewsky, Andrew (ENERGY)" <Andrew.Teliszewsky@ontario.ca>, "Whittington, Matt

(ENERGY)" <Matt.Whittington@ontario.ca>, "Baker, Carys (ENERGY)" <Carys.Baker@ontario.ca>, "MacIntyre, Kyle (TBS)" <Kyle.MacIntyre@ontario.ca>, "McLean, David (MOF)" <David.McLean@ontario.ca>, "Foster, Robert (CAB)" <Robert.Foster@ontario.ca>, "jordan.penic@ieso.ca" <jordan.penic@ieso.ca>, "'sarah.branco@ontarioenergyboard.ca'" <sarah.branco@ontarioenergyboard.ca>, "Turnevicius, Lorraine" <lorraine.turnevicius@ieso.ca>, "catriona.king@opg.com" <catriona.king@opg.com>, "Bungaro-Yemec, Francesca (ENERGY)" <Francesca.Bungaro-Yemec@ontario.ca>

Subject: RE: Rate Mitigation Implementation Meeting - April 6, 2017

Attached are the action items from today's meeting.

From: Katona, Keley (ENERGY)
Sent: April-05-17 5:10 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine Band'; 'CROZZOLI Carlo - CBUSDEV&STRT'; Mayman, Gadi (OFA); LEE John -TREASURY
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Bungaro-Yemec, Francesca (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,
Please find attached material for tomorrow's meeting.
Keley

Action Items – April 6, 2017

Global Adjustment Refinancing

- Legislation pens down April 21 for May 4 introduction
- OPG / IESO / Blakes to provide feedback on document that will provide instructions to Leg Counsel today
- MOs/PO meeting on Friday
- OPG providing shareholder resolution to OPG Board committee tomorrow and will be provided to Ministry following that
- OEB working with Ministry to finalize comfort letter

Affordability Fund

- Briefing of Advisory Committee scheduled for April 7

RRRP, OESP , FN Rate

- SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each
- SNAP working with MOF / CRA on waiving wet signature

ICI

- ESP / Comms continue to work with chamber of commerce / CME on outreach campaigns to business communities

Bill Presentment

- MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall)

Other Items

- AG meeting on April 19 will walk through a technical briefing deck (OFA / ENERGY / MOF / TBS to attend)

From: Ronald Kwan
To: John Kim; Emily Kerr
Cc: Gavin He
Subject: Fw: Rate Mitigation Implementation Meeting - April 13, 2017
Date: Thursday, April 13, 2017 6:15:35 PM
Attachments: Consolidated - OFHP Matrix - Week of April 10.docx
Agenda_Weekly Rate Mitig Implmentation Group_Mar 13.docx
Letter from Province to OPG.DOCX

Hi John, Emily,

FYI and please review.

Emily, note the point on the GA Refinancing and tying to individual customers.:

Ratepayers: final responsibility for repayment and there needs to be a direct link (normal course will be through IESO and LDCs but OPG SPV will need look through capabilities if necessary)
Cannot depend on intermediaries because that would result in degradation of credit ratings (would intermingle with ratings of intermediaries)
OEB has concerns around this tie to individual customers as it breaks from current practice
However it is required to meet credit requirements and in order to ensure IESO / LDCs do not take on incremental risk

Ron

From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: April 13, 2017 5:27 PM
To: David McLean (MOF)
Cc: Nancy Kennedy (MOHLTC); Gadi Mayman; Ronald Kwan
Subject: Rate Mitigation Implementation Meeting - April 13, 2017

Hi Dave,

Please see the following summary of today's OFHP discussion (Gadi note that there are a few references to OFA – that's what happens when you leave the room early):

GA Refinancing:
Past week has involved several "all day, all hands" meetings to come to ground on legislative instructions
Included IESO, OPG, OEB, ENE, TB, MoF, Torys, Oslers, Blakes, Stikeman, Goldman, RBC, CIBC, TD
Now moving into drafting of legislation itself and anticipate several turns over the weekend
This week's theme: who does what
OPG SPV: remains consistent, setting out and executing on a financing plan to purchase the regulatory asset from IESO

IESO: establishes the asset, sells it and acts as collection agent (not principle)
LDCs: also as collectors, but not at the table so have no voice, cannot impose incremental risk / burden on them, leverage existing structures
Ratepayers: final responsibility for repayment and there needs to be a direct link (normal course will be through IESO and LDCs but OPG SPV will need look through capabilities if necessary)
Cannot depend on intermediaries because that would result in degradation of credit ratings (would intermingle with ratings of intermediaries)
OEB has concerns around this tie to individual customers as it breaks from current practice
However it is required to meet credit requirements and in order to ensure IESO / LDCs do not take on incremental risk
Provincial guarantees:
Focused on a springing guarantee (not a blanket guarantee) in the event of government action and/or unconstitutionality
Dealers will need them
Planning to park this for now as it is not viewed as a requirement ion legislation
Based on Gadi's feedback and the importance of this element, the team will attempt to clarify this point prior to introduction of legislation (consider whether anything is needed in legislation)
Rationale for AAA rating
Need to access broadest possible set of markets for these securities including securitization market which requires AAA
Also first of a kind transaction in Canada, and very large scale so need to aim for strongest possible rating
Constitutional Law
Legislation is being drafted with the fairness concept at its core (tie to underlying generation assets in concept)
Making this defensible, but will need to tie back to cost curve of underlying contracts
- Work is underway to develop this linkage

Approvals
9 am May 1 for TB approvals
External reports to be available at that meeting
E&Y: opinion 1-2 pages, plan to include in May 1 submission (based on facts and assumptions)
KPMG: opinion 4-5 pages approx., coordinate to also have for May 1 submission (based on facts and assumptions)
OPCD:
Would reference accounting opinions in the TB note
Still layers of detail on regulation and commercial agreements that will impact, therefore opinions likely to reference facts in legislation and assumptions around what will be in regulation / contracts
OFA / OPG / Dealers
Will be asked to prepare an assessment of financeability of the structure
OPG
Accounting
Several calls + meetings set up for next week to begin to socialize and bring up to speed OPCD, E&Y, KPMG
Attempt is to be ready for accounting opinions to be delivered on a common set of facts
OPG Letter (earlier draft attached)

Comments from Province to be turned today
Provides choice to OPG Board to decide to participate based on commercial opportunity

OPG Actions:
Need a note describing why 49% / 51% split is necessary (need for accounting opinion on day 1 and throughout the program)
Need to better understand why OPG / Torys is seeking tax exempt status for the OPG SPV (and what that means)

IESO

Ministry briefed Board earlier this week
Fair bit of work required on mechanics once legislation is in place
Will need to work with OFA on LoC, including enhancements to deal with adverse situations (if OPG does not purchase the asset)
Can affect credit ratings
Need to ensure we preserve IESO's ability and right to collect

OEB

Minister's letter has been delivered to OEB in support of OEB rates
Comfort letter forming the basis of discussions of the RPP panel
April 20th announcement for May 1 rates

Affordability Fund
Up and running
First meeting of the advisors has occurred and they are getting ready to select Trustees

Social Programs
Leveraging existing structures
LDC working group next meets on Wednesday
Most focus on bill presentment (Province will propose minimal changes at implementation, more fundamental changes in fall, this will reduce anxiety)

OESP

Reg to LRC on April 10th, approved, to be filed and posted
Working with MCSS for automatic enrollment (and with OEB);
Appear to have a path forward
Align with existing social assistance programs + OESP
FN Rate
Meeting with Chiefs of Ontario set up on April 26th
Focused on implementation to move forward as quickly as possible to align with July 1 roll out

RRRP

In discussions with OEB on mechanism
Continue to monitor rate filings including H Dx application filed last Friday and recently file InnPower application
Revise fiscal projections accordingly
Need a memo explaining why important to continue with OEB rate application process and not freeze all applications
OEB process allows for a fair and responsible mechanism to review rates (sometimes leads to decreases)

Need to maintain reliability
Increases may have an impact on fiscal plan
Critical Path
Once legislation introduced May 1, quickly move to regulations
Late June LRC for July 1 implementation

ICI
Working on promoting program, in partnership with industry partners
Need for engagement as there is limited capacity in these organizations

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From: Katona, Keley (ENERGY)
Sent: April 12, 2017 5:33 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Mayman, Gadi (OFA); LEE John -TREASURY
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Bungaro-Yemec, Francesca (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 13, 2017

Good evening,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

Implementation of Ontario's Fair Hydro Plan
Week of April 10, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		

• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation
	• Defining mitigation and recovery mechanism
	• Establishing roles for IESO, OPG and OEB
	• Regulation (amend O.Reg. 95/05)
	• Shareholder Resolution (work with OPG to determine form)
	• Accounting opinions from E&Y (OPG) and KPMG (IESO)
	• Financing:
	  o How long will IESO hold short term liability (weeks/months);
	  o When and how frequently will OPG purchase the asset from IESO;
	  o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc);
	  o OPG to confirm if it is considering more than one SPV/subsidiary;
	  o OPG to explore tax considerations;
	  o OPG to indicate how it would determine interest rate on sub-debt; and
	  o OPG to provide amount/frequency of equity required and indicate trigger
	• Third Party Technical Report (e.g., long lived assets, associated assessment of social, health and environmental benefits)
	
	<u>Recent Action Items</u>
	
	OPG:
	• OPG to continue to work with lead banks / rating agencies / OFA on financing issues
	• OPG to confirm accounting if OFA were to act as lead order on borrowing
	• OPG to determine who will finance / hold the asset until it goes to
		• IESO Board meeting on April 12, 2017 – ESP to present on OFHP
		
		• AG briefing on April 19, 2017 (TBD)
		
		• Provide comfort letter to allow OEB to include in May 2017 RPP
		
		• April 21, 2017, "pens down" on Legislative drafting
		
		• Approval dates:
		  o TB/LRC on May 1 2017; and
		  o Cabinet on May 3, 2017
		
		• Legislation introduced May 4, 2017.
		  o Opposition Briefing (TBD)
		
		• Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	the market • OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member • OPG providing shareholder resolution to OPG Board committee April 7, 2017 and will be provided to Ministry following that **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes / OPG / IESO will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature • Working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Monday to work through issues related to legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap	

Item	Key Deliverables / Considerations	Timing / Next Steps
	• Blakes / LSB to work with MAG on a second constitutional law opinion from Peter Hogg • TD engaged through OFA to provide financial advice <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs • SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • LRC package for OESP enhancements (50% increase, expanded eligibility) approved by LRC and Cabinet. o Implementation on May 1 to align with OEB decision to end OESP charge on May 1, and to finance program through variance account. • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • SNAP to work with TBS map out how funds will flow from fiscal plan after legislation passes <u>Considerations</u> • Ministry is working with OEB on how the OESP enhancement will be announced as part of a communications exercise. • Positive progress with OEB on implementation: o OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts o Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to transition from OESP variance (approx. $100 million) to finance the program to financing with tax funds. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • On-reserve eligibility considerations require discussion with Chiefs of Ontario • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. • April 7, 2017: Briefing for Advisory Committee members <u>Considerations</u> • Legislative changes not required.	**April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information. March 31, 2017, information provided to the FAO
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP <u>Recent Action Items</u> • Provide AG technical briefing presentation used in media lock-up on OFHP in advance of the technical briefing	• March 2017: Cabinet submissions provided to AG • April 19, 2017: Preliminary discussion on (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment <u>Recent Action Items</u> • MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall)	• Initial discussion on March 31, 2017

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 13, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB / Blakes)
    - OPG Update
    - IESO Update
    - OEB Update

2) OPG Letter

3) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

4) Update on Action Items / Policy Matrix

Notes:

DRAFT: April 11, 2017

[Letterhead of Minister of Energy]

April [●], 2017

Bernard Lord
Board Chair
Ontario Power Generation Inc.
700 University Avenue, 19th Floor
Toronto, Ontario
M5G 1X6

Dear Mr. Lord:

I am writing further to the Premier's news release of March 2, 2017, in which the Province announced the Fair Hydro Plan to lower electricity bills by 25 per cent on average for certain customers starting in the summer of 2017, as part of a significant system restructuring that will address long-standing policy challenges and ensure greater fairness. Given OPG's expertise as a participant in the electricity market and its expertise in rate regulated accounting and investment stewardship over significant pension and nuclear funds, I am writing specifically to request OPG's involvement in the implementation of the Global Adjustment Refinancing component of the Fair Hydro Plan

As you will have read, the 25 percent reduction in residential electricity bills referred to in the March 2nd announcement includes the 8 per cent reduction resulting from the rebate of the provincial portion of the harmonized sales tax on electricity bills effective January 1, 2017. The Province has also committed that certain customer bills would not increase by more than the rate of inflation for the four years following the 25 per cent average reduction.

In addition, as you know, Ministry of Energy staff have been working on preparing the draft legislation and regulations to implement the Fair Hydro Plan, with input from the IESO, the OEB, OPG and their respective advisors.

The Province is requesting that OPG, working with the Ministry of Energy, the IESO, the OEB, and their respective advisors, consider and recommend a plan for financing mechanisms that could achieve the Province's objectives for the reduction in consumer bills and the limitation on bill increases outlined above and in the Fair Hydro Plan, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan.

In particular, the Province would like OPG's financing plan to consider, among other things, structures and methods that would permit viable refinancing of a portion of the Global

Adjustment to reduce electricity prices for certain of today's electricity ratepayers, with the costs of the refinancing to be recovered over a period of up to 30 years, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan. We would expect the financing plan to include:

i) potential structures for the financing, which may include, as appropriate, a special purpose vehicle created for the financing;

ii) potential financing mechanisms and instruments, including senior debt and subordinated debt; and

iii) identification of the capital markets and jurisdictions that can be accessed to finance the rate mitigation.

The Province recognizes the need to provide OPG with the necessary assurances with respect to recovery of the principal, interest, and operating and other costs of any financing and will address the specific requirements identified by OPG and its financial advisors, including in the pending legislation and regulations that will govern the mechanics and requirements of the financing entity. We would also request that your plan identify any amendments to OPG's governing legislation and constating documents needed to facilitate the implementation of the financing plan in a commercial manner.

We would further expect that the financing plan would be implemented in an effective and cost-efficient manner by OPG.

I look forward to receiving a detailed plan that has the support of the OPG Board of Directors by June 1, 2017.

Yours truly,

The Honourable Glenn Thibeault
Minister of Energy

From:	Ronald Kwan
To:	John Kim; Tobias P. Whitfield (MOF)
Cc:	Gavin He
Subject:	Fw: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Tuesday, April 11, 2017 1:21:38 PM

Hi,

FYI. Are either of you invited to tomorrow's meeting?

Ron

From: Smith, Elliot <ESmith@osler.com>
Sent: April 11, 2017 1:19 PM
To: ASHBOURNE, STEPHEN; Feldman, Michael; JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; James Rehob (ENERGY); Alan Hibben; Dan Shear (ENERGY); Carolyn Calwell (MCSS); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY); Sebastiano, Rocco; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Tim Christie (ENERGY); Carolyn Calwell (MCSS); Paul Johnson (ENERGY); Dan Shear (ENERGY); James Rehob (ENERGY); Ronald Kwan; Gavin He; Veinot, Cindy (TBS); Hosick, Sarah (TBS); Scott Nelms (ENERGY); kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com); Hilary Cox (ENE); Hilloowala, Maharukh; Wolff, Michael; Holloway, Harold; Akman, Steven; Manii, David; Nevison, Gary
Cc: Niehaus, Katrina; 'Maciel, Andrew'; Persaud, Donnie - Debt Capital Markets; Adalja, Sunil; Alvi, Shariq; 'Benaiah, Ian'; Fullerton, Rick; Collins, Patrick J; Mullen, Max M.; Delaney, Brian; Hong, Yoomin; Raman, Akila; Fullerton, Rick; Smith, Elliot; King, Richard; Innes, Michael; Milligan, Peter
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Stephen,
This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot

OSLER

Elliot Smith
Partner - Energy, Construction & Infrastructure

416.862.6435 DIRECT
416.862.6666 FACSIMILE
esmith@osler.com

Osler, Hoskin & Harcourt LLP
Box 50, 1 First Canadian Place
Toronto, Ontario, Canada M5X 1B8

osler.com
[osler.com]

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]
Sent: Monday, April 10, 2017 11:16 PM
To: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Smith, Elliot <ESmith@osler.com>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Rehob, James (ENERGY) <James.Rehob@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; 'Gavin He' <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>; kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com) <john.s.lee@opg.com>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com[blakes.com] **| Twitter**[twitter.com] **| Unsubscribe**[blakes.com]

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From:	John Kim
To:	Bruno Amara
Subject:	Fwd: Appendix
Date:	Saturday, April 29, 2017 3:05:28 PM
Attachments:	Rate Mitigation (ENERGY) - Appendix - Cabinet - March 1 2017 (6).pdf ATT00001.htm

---

Don't want to engage the guys yet but FYI.

Begin forwarded message:

> **From:** "Ken Kandeepan" <Ken.Kandeepan@ofina.on.ca>
> **To:** "John Kim" <John.Kim@ofina.on.ca>
> **Subject: Appendix**
>
> As requested
>
> Ken k

Electricity Price Mitigation – Appendix

Ministry of Energy

March 1, 2017

Electricity Bonds - Asset Securitization Transactions in U.S.: Long Island Power Authority and Duke Energy

	Long Island Power Authority (LIPA)	Duke Energy
Key Terms	Up to $4.5 billion, in one or more series/tranches, with maturity no longer than 30 years. Fixed interest rates for each tranche. Estimated net present value savings to ratepayers from securitization: $446 million.	$1.283 billion plus bond issuance costs, in one or more series/tranches, with maturity up to 23 years. Fixed interest rates for each tranche. Estimated total savings to ratepayers from securitization: $708 million.
Bond Issuer	Special-purpose “public benefit” corporation created by statute.	Wholly owned “limited liability corporation” (structure not available in Ontario) of investor-owned Utility.
Covered Costs	Outstanding debt arising mostly from the closing of Shoreham nuclear power plant.	Costs from early retirement or abandonment of nuclear power plants and ongoing financing costs.
Collateral Property	Revenues from usage-based “transition charges” (part of delivery charge) on all customer bills.	Revenues from usage-based Asset Securitization Charge (separate line item on all customer bills.
Covered Customers	All existing and future grid-connected customers; charges not by-passable.	All existing and future customers; charges not by-passable.
Issuance Approval Process	Financing order issued by LIPA setting out the amount and terms of bond. Public hearings must be held before order finalized.	Utility petitions for financing order from Florida Public Service Commission (FPSC), which sets out details of bond issuance, including amount and terms. Final structure of transaction reviewed by FPSC for limited purpose of ensuring all requirements of law and financing order are met.
Status of Bond	Not debt of the State, although State provides statutory pledge not to impair the value of the collateral property.	Not debt of the State, although State provides statutory pledge not to impair the value of the collateral property.
Governance of Bond Issuer	Board of Trustees appointed by Governor	“Bond team” is established by order of the FPSC, which is “visibly involved”.
Adjustment Mechanisms	“Transition charges” adjusted annually based on mathematical formula in financing order, to ensure charges are adequate for servicing the bond; transitions charges may increase or decrease depending on variations in consumption.	Mandatory biannual petition by Utility to FPSC to adjust charges for any over or under collection, based on mathematical formula provided in the financing order and estimates of consumption for each rate class.

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ieso
Connecting Today.
Powering Tomorrow.

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416 506 2800
www.ieso.ca

February 28, 2017

Deputy Minister Serge Imbrogno
Ontario Ministry of Energy
900 Bay Street
Hearst Block, 4th Floor
Toronto, ON M7A 2E1

Dear Deputy Imbrogno:

Attached are two documents prepared in conjunction with our KPMG advisors. The first outlines the proposed adoption by the IESO of the guidance in *ASC980 Regulated Operations* and the recognition of regulatory assets, as a more appropriate and transparent presentation in our financial statements.

The second is associated with the potential recognition and de-recognition of the regulatory assets associated with the IESO's role under the Global Adjustment Smoothing Account.

The conclusions of the second analysis are based on the structure of the account as the IESO currently understands it, and may vary depending on the final legislative materials.

We are available to address any questions you may have on these matters.

Sincerely,

Bruce B. Campbell

Attach.

Bruce B. Campbell
President and CEO
bruce.campbell@ieso.ca
t 416 506 2829

Ontario

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416 506 2800
www.ieso.ca

White Paper - Adoption of the guidance in ASC 980 Regulated Operations

Independent Electricity System Operator ("IESO" or the "Company") is considering making changes in its accounting policies to reflect the balances of market participants within the IESO-administered markets (see separate technical analysis) and the economic impacts of rate regulation, as the changes would result in a more appropriate presentation of events or transactions in its financial statements.

Issue being considered in this document is: Can the IESO adopt the guidance in ASC 980 *Regulated Operations (US GAAP in FASB)*?

Background and Assumptions

The facts, circumstances, and assumptions relevant to the specific transactions are as follows:

1. The IESO's legal status is a not-for-profit, non-taxable, corporation established pursuant to Part II of the *Electricity Act, 1998*. IESO is classified as an Other Governmental Organization and prepares its financial statements in accordance with Canadian public sector accounting standards (PSAB).
2. IESO is rate regulated by the OEB in accordance with the Electricity Act, 1998 and the Ontario Energy Board ("OEB") Act, 1998 but currently does not recognize the economic impacts of rate regulation in its general purpose financial statements.
3. The IESO is required to obtain approval from the OEB under s. 25(1) of the Electricity Act, 1998 for the approval of its own expenditures, revenue requirement and fees. The last rate approval was obtained on December 29, 2016[1].
4. The OEB issued a Decision and Order on March 28, 2013 that permits IESO to recover the MDMR costs (the Smart Metering Charge) (see Appendix A). *(i.e. Costs incurred in the past will be fully recovered through future rates)*
5. Furthermore, in accordance with the *Electricity Act, 1998* and the *OEB Act, 1998*, the IESO has approved variance accounts to record all amounts payable or receivable by it in connection with the amounts paid to generators, the Financial Corporation, distributors and to entities with whom the IESO has a procurement contract. (i.e. costs incurred in the past will be fully recovered through future rates)
6. The IESO would change its accounting policies to permit the recognition of the economic impacts of rate regulation as from the 2016 financial year. IESO would adopt the guidance of ASC 980 *Regulated Operations* to better reflect the economic substance of its operations and enhance the transparency and accountability of its financial reporting.

Appropriate Accounting Principle

PS2120.02, "*a change in an accounting policy may be made… if it is considered that the change would result in a more appropriate presentation of events or transactions in the financial statements of the government.*"

PS1150.05 "*When the primary sources of GAAP do not deal with the accounting and reporting in financial statements of transactions or events encountered by the public sector reporting entity, or additional guidance is needed to apply a primary source to specific circumstances, the selection of an appropriate accounting policy requires the exercise of professional judgment. In these circumstances, a public sector reporting entity should adopt accounting policies and disclosures that are consistent with:*

[1] http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/556699/view/Dec_Order_IESO_20161229.PDF

(a) *the primary sources of GAAP; and*

(b) *the application of the concepts described in FINANCIAL STATEMENT CONCEPTS, Section PS 1000."*

PS1150.19 *"Pronouncements issued by other bodies authorized to issue accounting standards may be useful sources to consult. For example, accounting pronouncements published with the authority of the Canadian Accounting Standards Board (AcSB), International Accounting Standards Board (IASB), US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB), or International Public Sector Accounting Standards Board (IPSASB) are often important sources to consult on matters not covered by primary sources of GAAP or for assistance in applying a primary source of GAAP to specific circumstances."*

PS1150.08 "A public sector reporting entity consults sources other than primary sources of GAAP to assist in selecting accounting policies and disclosures only when these sources comply with paragraph PS1150.05. The public sector reporting entity evaluates sources in selecting the appropriate accounting policies and disclosures based on all of the following criteria:

(a) *The specificity of the source — A source that deals with the specific circumstances is likely to be more relevant than one from which the public sector reporting entity must analogize.*

(b) *The authority of the issuer or author — A source issued by an accounting standard setter in its own jurisdiction is likely to be more relevant than a source issued by others in the same jurisdiction.*

(c) *The continued relevance of the source — The passage of time may diminish the relevance of certain sources.*

(d) *The development process for the source — A source developed after extensive consultation and debate is likely to be more relevant than a source developed without such discipline."*

PS1150.10 "PSAB considers a source to be consistent with the concepts in paragraph PS 1150.05(b) when the guidance in that source is compatible with the (i) qualitative characteristics of financial information, (ii) the elements of financial statements, and (iii) the recognition and measurement criteria in paragraph PS 1150.05(b)."

PS1000.58 "In the absence of appropriate public sector recognition and measurement criteria for intangibles, all intangibles, including those that have been purchased, developed, constructed or inherited in right of the Crown, are not recognized as assets in government financial statements. The intangible often called "human capital" that embodies the talent or intellectual capital of government employees is not recognized as an asset under existing accounting principles."

PS3210.03 "Assets are economic resources controlled by a public sector entity as a result of past transactions or events and from which future economic benefits are expected to be obtained."

PS3210.04 "Assets have three essential characteristics:

(a) *They embody future economic benefits that involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash inflows, or to reduce cash outflows.*

(b) *The public sector entity can control the economic resource and access to the future economic benefits.*

(c) *The transaction or event giving rise to the public sector entity's control has already occurred."*

Issue: Can the IESO adopt the guidance in ASC 980 *Regulated Operations*?

In accordance with PS2120.02, the IESO can reflect the economic impacts of rate regulation only if it is considered that the change of accounting policy would result in a more appropriate presentation of events or transactions in the financial statements of the government. As mentioned in the Agenda ref. 9A of the IASB meeting of February 2017[2], rate regulated entities have long argued that, without recognizing regulatory assets and regulatory liabilities, the entity's performance is distorted by the rate regulator's intervention in the imposition of performance obligations on the entity and the timing of cash flows from the ratepayers.

[2] http://www.ifrs.org/Meetings/MeetingDocs/IASB/2017/February/AP09-Rate-regulated-Activities.pdf

Ontario

The recognition of regulatory assets and liabilities would better reflect the economic substance of IESO's operations and enhance the transparency and accountability of its financial reporting. For example, during the period from 2007 to April 2013 the IESO incurred costs relating to the Smart Meter Program amounting to $90.9 million, and these costs were expensed and are included in the accumulated deficit. In the absence of applicable regulatory accounting under PSAS, the IESO was unable to recognize a regulatory asset for this charge, despite receiving a rate order to recover it over the period from May 1, 2013 to October 31, 2018. Should the IESO choose to adopt ASC 980, a regulatory asset for the Smart Metering Charge would be recognized at December 31, 2016 for an amount of approximately $21.6 million, which would represent the remaining unamortized amount that would have been reported if the asset was recognized originally in 2013.

PSAS does not address accounting concepts in a rate regulated environment. Since there is no guidance in PSAS regarding the recognition and measurement of regulatory assets and liabilities, IESO may consider other sources based upon PSAS 1150.05 in the GAAP hierarchy to determine appropriate accounting policies in a rate regulated environment.

Within AcSB, Accounting Standards for Private Enterprises (ASPE) defines a rate regulated entity but provides no guidance on regulatory assets and liabilities however requires disclosure of such balances if they are recognized. IASB has not completed their project on rate regulated activities and current standards only include a holding standard based upon what was done under previous GAAP. It will be important for the IESO to monitor the IASB's ongoing project on rate regulated activities as this may affect the recognition, measurement, presentation and disclosures of the regulatory assets and liabilities. Both FASB and GASB have guidance on accounting in a regulatory environment. IPSASB does not provide any guidance on accounting by rate regulated entities.

It is important to note that rate regulated entities in Canada that prepare their general purpose financial statements in accordance with US GAAP (e.g. Hydro One and Ontario Power Generation), ASPE (e.g. the three Fortis subsidiaries in Ontario), as well as those rate regulated entities that are eligible to elect to apply the requirements of IFRS 14 and elected to do so when they adopted IFRS (e.g. over 60 LDCs in Ontario), generally all recognize regulatory deferral and variance accounts in accordance with US GAAP accounting principles set out ASC 980 *Regulated Operations.*

Statement 62 issued by GASB in December 2010 is effective for financial statements for periods beginning after December 15, 2011. The objective of the Statement is to incorporate into the GASB's authoritative literature certain accounting and financial reporting guidance that is included in the Financial Accounting Standards Board (FASB) Statements and Interpretations issued on or before November 30, 1989, which does not conflict with or contradict GASB pronouncements. Paragraphs 476–500 may be applied to activities reported in business-type activities that have regulated operations that meet all of the three criteria in paragraph 476 as follows:

(a) The regulated business-type activity's rates for regulated services provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.

(b) The regulated rates are designed to recover the specific regulated business-type activity's costs of providing the regulated services.

(c) In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the regulated business-type activity's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs.

The criteria above and the guidance in paragraphs 476-500 are based on ASC 980 *Regulated Operations.*

It is also important to note that in its statement of financial position, the Ontario Electricity Financial Corporation ("OEFC"), which reports under Canadian public sector accounting standards, recognizes a net unamortized liability balance for power purchase contracts, as detailed in the summary of significant accounting policies:

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"The liability for power purchase contracts was originally calculated by discounting estimated losses over the life of the contracts. Under the *Electricity Restructuring Act, 2004*, OEFC began receiving actual contract prices for power from electricity consumers, effective January 1, 2005, and no longer incurs losses on these power purchase contracts. At that time, the Ministry of Finance estimated that the bulk of the liability would be eliminated over 12 years as existing electricity contracts expire. As a result, the bulk of the liability is being amortized to revenue over that period."

Although this liability is not defined as a regulatory liability in the OEFC's financial statements, the argument can be made that it substantively meets the definition under ASC 980 of a regulatory liability, as the OEFC had no further obligation and should have reversed the liability into income. After consultation with the AG at that time, it was decided to amortize the gain over the remaining term of the contracts.

In summary

Rate regulated entities in North America reporting under US GAAP, ASPE, IFRS (entities which have elected to use IFRS 14) and GASB generally all recognize regulatory deferral and variance accounts in accordance with US GAAP accounting principles based on ASC 980 *Regulated Operations* (see Appendix B for the accounting framework used by the Canadian rate regulated entities).

Evaluation of Other Sources of GAAP

When looking to other sources of GAAP, PSAS requires the other sources of GAAP to be evaluated

1. *as to whether they are consistent with accounting policies and disclosure within PSAS,*
2. *as to whether they are consistent with the application of concepts in PS 1000 and*
3. *as to all of the following criteria:*
   - *(a) Source deals with the specific circumstance*
   - *(b) Source is issued by an accounting standard setter*
   - *(c) Source continues to be relevant*
   - *(d) Source uses a consultative process and deliberation when developing policies*

As required by PS 1150.05(b), we need to analyze whether the concepts in the other source (i.e. ASC 980) are compatible with the (i) qualitative characteristics of financial information, (ii) the elements of financial statements, and (iii) the recognition and measurement criteria in PS 1000.

(i) Qualitative Characteristics of Financial Information

FASB	PSAS 1000	Evaluation
Concepts and objectives are for both business and non-business organizations as well as governmental units (Concept #4.3 to 4.5)	Public, legislators, councilors, investors, analysts, other governments (par. 14)	FASB considers governmental units
Financial reporting should: – Be useful in making resource allocation decisions – Be useful in assessing services and ability to provide services – Be useful in assessing management stewardship and performance – Provide information about economic resources, obligations, net resources and changes in them (Concept # 4.33-.54)	Financial statements should be relevant to the needs of the users and reliable. Relevance is achieved through timeliness, predictability and accountability value. Reliable information has the following characteristics: representational faithfulness, completeness, neutrality, conservatism and verifiability. (par. 28-29)	Similar

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(ii) Elements of Financial Statements

FASB	PSAS	Evaluation
Assets		
Probable future economic benefits obtained or controlled by the entity as a result of past transactions or events. (Concept #6.25-.34)	Economic resources controlled by a government as a result of past transactions or event and from which future economic benefits are expected to be obtained. (par. 35)	Essential characteristics similar
Liabilities		
Probable future sacrifices of economic benefits arising from present obligations of the entity to transfer assets or provide services in the future as a result of past transactions or events. (Concept #6.35-.43)	Present obligations to others arising from past transactions or events, the settlement of which is expected to result in the future sacrifice of economic benefits with little or no discretion to avoid settlement. (par. 44)	Essential characteristics similar
Revenues		
Inflows from delivering or producing goods, rendering services or other activities that constitute the entity's central operations. (Concept #6.78-.79)	Increases in economic resources resulting from operations, transactions and events of the accounting period. (par. 46)	Similar
Expenses		
Outflows from delivering or producing goods, rendering services or carrying out other activities that constitute the entity's central operations. (Concept # 6.80-.81)	Decreases in economic resources resulting from operations, transactions and events of the accounting period. (par. 49)	Similar

(iii) Recognition Criteria

FASB	PSAS	Evaluation
To be recognized, an item must meet the definition of an element of the financial statements, must be measurable with sufficient reliability, be relevant and be reliable. (Concept # 5.64)	Item must have an appropriate basis of measurement, a reasonable estimate can be made of the amount and if the item involves obtaining or giving up future economic benefits, it is expected those benefits will be obtained or given up. (par. 55)	Similar

(iii) Measurement Criteria

FASB	PSAS	Evaluation
Measurement basis dependent upon nature of item. Historical cost basis, replacement cost, market value. (Concept # 5.65-.70)	Primarily using historical cost basis. Replacement cost and realizable value are also used, but in limited circumstances. (par. 60)	Similar

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Criteria of PS 1150.08

Criteria	Evaluation
Source deals with the specific circumstance	Yes, ASC 980 Regulated Operations
Source is issued by an accounting standard setter	Yes, FASB
Source continues to be relevant	Yes, still used by rate regulated entities
Source uses a consultative process and deliberation when developing policies	Yes, comprehensive consultative process and deliberation

Evaluation whether regulatory assets meet the definition of Assets as per Section PS3210

PS3210 defines assets as *"economic resources controlled by a public sector entity as a result of past transactions or events and from which future economic benefits are expected to be obtained."* (par. 03)

The analysis of the three essential characteristics as defined by PS3210.4 are analyzed in the next table.

Characteristics	Additional guidance	Comments
They embody future economic benefits that involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash inflows, or to reduce cash outflows. (par. 4(a))	The essence of assets are their future economic benefits. Assets embody future economic benefits that allow public sector entities to achieve their objectives. The future economic benefits embodied in assets involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash inflows or to reduce cash outflows. (par. 11) The future economic benefits embodied in an asset may also be in the form of generating future cash inflows. Cash inflows benefit the public sector entity because cash can be used to purchase or to provide goods and services, redistribute wealth or settle liabilities. (par. 13)	The economic benefit embodied in the variance accounts (i.e regulatory asset) is the right to collect the incurred costs from ratepayers in order to settle the liability for the energy already consumed by the ratepayers. The electricity Act, 1998 ("EA") section 25.33(1) states: *"The IESO shall, through its billing and settlement systems, make adjustments in accordance with the regulations that ensure that, over time, payments by classes of market participants in Ontario that are prescribed by regulation reflect,* *a) amounts paid to generators, the Financial Corporation and distributors, whether the amounts are determined under the market rules or under section 78.1, 78.2 or 78.5 of the Ontario Energy Board Act, 1998; and* *b) amounts paid to entities with whom the IESO has a procurement contract, as determined under the procurement contract."*
The public sector entity can control the economic resource and access to the future economic benefits. (par. 4(b))	Economic resources can arise from, but are not limited to, the following: government's own legislation (for example, taxes, fines and penalties); (par. 08(c)) A public sector entity controls the economic resource and access to the	The economic resources is the right created by the legislation that the energy costs IESO incurs will result in future cash flows. In the regulatory environments, incurring costs creates an enforceable right to set rates at a level that permits

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	future economic benefits when it: a. can benefit from the economic resource through its capacity to provide goods and services, to provide future cash inflows or to reduce cash outflows; b. can deny or regulate access to those benefits by others; and c. is exposed to the risks associated with the economic resource. (par.16)	IESO to recover those costs. The adjustment of future rates is the mechanism the OEB uses to implement the right. Currently, the EA section 25.33(5) states: *"The IESO shall establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by it under this section."* The legislation would be amended to permit IESO to collect specifically the deferral of the energy costs and the related interest and administrative costs.
The transaction or event giving rise to the public sector entity's control has already occurred. (par.4(c))	It is the occurrence of a past transaction or event on or before the financial statement date that distinguishes a present economic resource controlled by a public sector entity from an economic resource that may be controlled by a public sector entity in the future. (par. 25) The past transaction or event that gives rise to control of an economic resource resulting from exchange agreements or contracts usually occurs at the point of exchange. This arises when substantially all the benefits and risks of ownership have been transferred to the public sector entity and normally coincides with the disbursement of funds, exchange of other assets or assumption of liabilities. (par. 26)	The past event giving rise to IESO's control occurs as the energy cost is incurred, as IESO has a right to collect it from the ratepayers.
Conclusion: The right to collect the deferral of the energy costs and the related interest and administrative costs meets the definition of assets.		

When concepts are in conflict with PSAS then PSAS prevails (PS 1150.12). For example, PSAS does not recognize intangible assets (PS 3150.03, .14 and PS1000.58). So if regulatory assets are considered to be intangible assets, they would not be allowed to be recognized through another source of GAAP.

It is worth noting that the economic impacts of rate regulation are not recognized under US GAAP as intangible assets as the FASB has specific guidance to deal with this type of asset. It is also worth noting that the IASB has an ongoing project on rate regulated activities and are currently developing an accounting model based on the principles of IFRS 15 *Revenue from contracts with customers* to provide a principle-based framework for recognizing regulatory assets (see Agenda Ref. 9 for the IASB meeting on February 23, 2017). Furthermore, the Summary Comment Letter Analysis related to the ED/2009/8 on Rate Regulated Activities published by the IASB in July 2009 states on page 2 of 50:

"The International Financial Reporting Interpretations Committee ("IFRIC") observed that it had previously discussed whether a regulatory asset should be recognized in the context of service concession arrangements, either as deferred costs or as an intangible asset to reflect an expectation that the entity will

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recover these costs as part of the price charged in future periods. It had concluded that entities applying IFRSs should recognize only assets that qualified for recognition in accordance with the IASB's *Framework for the Preparation and Presentation of Financial Statements* and relevant accounting standards, such as IAS 11 *Construction Contracts*, IAS 18 *Revenue*, IAS 16 *Property, Plant and Equipment* and IAS 38 *Intangible Assets*."

Entities that are not eligible to elect to apply the requirements of IFRS 14 do not recognize regulatory assets because in 2009 the IFRIC determined they did not meet the criteria for recognition of an intangible asset under IAS 38.

Therefore, we can conclude that ASC 980 is NOT in conflict with PS 3150.03, .14 and PS1000.58 with respect to intangible assets.

Conclusion:
FASB is appropriate to use as "*other source of GAAP*". FASB standard ASC 980 has extensive guidance for rate regulated entities including the recognition of regulatory assets and use of rate regulated accounting by IESO would be consistent with current reporting practices of H1, OPG and OEFC.

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Appendix A:

Extract from the "DECISION and ORDER issued by the OEB on March 28, 2013" available on the IFRS website

Proceeding on the Ontario Energy Board's own motion to review the options for and ultimately determine the appropriate allocation and recovery of the Smart Metering Charge pursuant to section 19 of the Ontario Energy Board Act, 1998.

THE BOARD ORDERS THAT:

Effective May 1, 2013, the Smart Metering Entity charge to be levied and collected by the Smart Metering Entity from all Distributors identified in the Board's annual Yearbook of Electricity Distributors shall be $0.788 per month for each Residential and General Service <50kW customers for each distributor. The Smart Metering Entity charge shall be in effect from May 1, 2013 to October 31, 2018. The number of Residential and General Service <50kW customers to which the Smart Metering Entity charge will be applied to shall be in accordance with the methodology set forth in the Settlement Agreement attached as Appendix A.

http://www.ontarioenergyboard.ca/oeb/_Documents/EB-2012-0100/dec_order_IESO-SME_20130328.pdf

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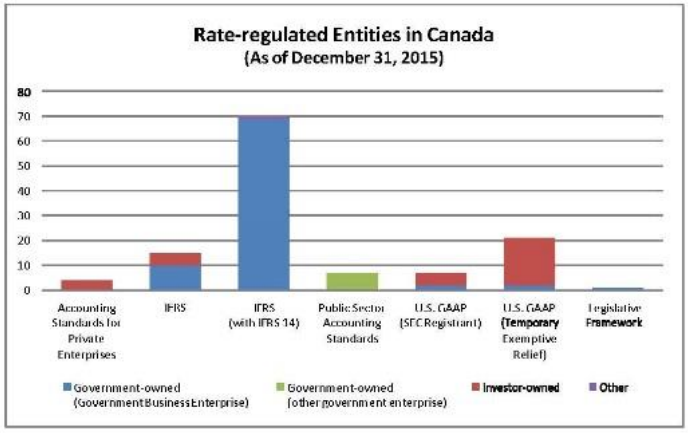
Appendix B:

Extract from the "Accounting Standards Advisory Forum Agenda Ref: 3A dated September 29, 2016" available on the IFRS website

Canadian Rate-regulated Entities

18. The accounting framework landscape for Canadian rate-regulated entities is currently diverse. For annual periods beginning on or after January 1, 2015, rate-regulated entities that are Canadian publicly accountable enterprises are required to apply IFRS. Rate-regulated entities that adopted IFRS for the first time after IFRS 14 *Regulatory Deferral Accounts* was issued continue to recognize these balances. Government Business Enterprises (which operate to generate a profit or on a break-even basis) that are also rate-regulated entities are also directed to apply standards applicable to for-profit entities, and thus apply IFRS. Canadian securities legislation permits dual-listed entities (i.e., Canadian entities also registered with the U.S. Securities and Exchange Commission) to apply U.S. GAAP in the normal course. Temporary exemptive relief is also available from the Canadian Securities Administrators that permits rate-regulated entities that are not dual-listed to apply U.S. GAAP in place of IFRS. If a rate-regulated entity is not a publicly accountable enterprise or a Government Business Enterprise, additional accounting framework options may also include Accounting Standards for Private Enterprises or Public Sector Accounting Standards. A non-GAAP reporting framework is used when legislated by the provincial owner of a government-owned rate-regulated entity.

19. As of December 31, 2015, there were approximately 125 rate-regulated entities in Canada. These entities mainly range in size from small entities owned by municipal governments to large investor-owned entities or entities owned by provincial governments.



Source: Information compiled based on audited financial statements for fiscal year 2015, or information from rate filings that confirmed the accounting framework used by these entities. Due to data collection constraints, the population could be slightly larger.

20. The chart above highlights two key points:

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(a) The majority of investor-owned entities have chosen U.S. GAAP over IFRS. A few entities that are not reporting issuers apply Accounting Standards for Private Enterprises. Both U.S. GAAP and Accounting Standards for Private Enterprises permit the recognition of balances arising from rate regulation. Several entities that apply U.S. GAAP have told us this choice was influenced by the need to provide their users with financial statements that accurately reflect the economics of their business. Further, some entities presently using the temporary exemptive relief described in paragraph18 have said they are considering incurring the cost and effort necessary to become a registrant of the U.S. Securities and Exchange Commission in order to have the permanent ability to apply U.S. GAAP. While such a decision could be primarily for business reasons such as the entity expanding its operations into the U.S., it could also be attributed to the continuing uncertainty about the ultimate outcome of the IASB's Rate-regulated Activities project and the approaching expiry date of the securities regulators' exemptive relief.

(b) Public sector entities that are Government Business Enterprises tend to apply IFRS. The majority of these entities is made up of several large provincially-owned utilities, and many small municipally-owned local distribution utilities that do not issue debt or list in the U.S. stock market, and are not subject to Canadian securities legislation. As a result, they cannot apply U.S. GAAP. As shown in the chart, many of these entities adopted IFRS for the first time after the IASB issued IFRS 14, which allowed them to continue their previous accounting practices for rate-regulated activities.

21. Within the pool of government-owned rate-regulated entities, there are entities that do not meet the characteristics of Government Business Enterprises and are required to apply Public Sector Accounting Standards.

22. The data on the different accounting frameworks in Canada is unique. It demonstrates that when given a choice, rate-regulated entities select an accounting framework that captures the effects of rate regulation on their financial position and financial performance in order to communicate more decision-useful information to users.

http://www.ifrs.org/Meetings/MeetingDocs/ASAF/2016/September/1609-ASAF-03A-Rate-regulated-Activities-Canada.pdf

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Connecting Today.
Powering Tomorrow.

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416 506 2800
www.ieso.ca

White Paper on the Province's proposed Global Adjustment Smoothing Account

Below is a summary of IESO's preliminary views on the implementation of the Province's proposed Global Adjustment Smoothing Account.

Understanding that the finalization of the legal terms, the financing structure and other detailed terms will take several months and will involve collaboration between legal counsel, parties involved and other stakeholders, this letter is intended to provide the guideline and framework which could form the foundation of the plan.

Issues being considered in this document are:

Issue #1: Can the IESO recognize deferral or variance accounts related to the annual Global Adjustment Smoothing Account as a regulatory asset on its statement of financial position?

Issue #2: Can the IESO derecognize the deferral or variance accounts related to the Global Adjustment Smoothing Account upon sale to the OPG Trust?

1. Recognition of regulatory assets (deferral and variance accounts)

Background and Assumptions for issue #1

The facts, circumstances, and assumptions relevant to the specific transactions are as follows:

1. The IESO's legal status is a not-for-profit, non-taxable, corporation established pursuant to Part II of the *Electricity Act, 1998*. IESO is classified as an Other Governmental Organization and prepares its financial statements in accordance with Canadian public sector accounting standards (PSAB).
2. IESO is rate regulated by the OEB in accordance with the Electricity Act, 1998 and the Ontario Energy Board ("OEB") Act, 1998 but currently does not recognize the economic impacts of rate regulation in its general purpose financial statements.
3. The IESO is required to obtain approval from the OEB under s. 25(1) of the Electricity Act, 1998 for the approval of its own expenditures, revenue requirement and fees. The last rate approval was obtained on December 29, 2016[1].
4. The OEB issued a Decision and Order on March 28, 2013 that permits IESO to recover the MDMR costs (the Smart Metering Charge) (see Appendix A). *(i.e. Costs incurred in the past will be fully recovered through future rates)*
5. Furthermore, in accordance with the *Electricity Act, 1998* and the *OEB Act, 1998*, the IESO has approved variance accounts to record all amounts payable or receivable by it in connection with the amounts paid to generators, the Financial Corporation, distributors and to entities with whom the IESO has a procurement contract. (i.e. costs incurred in the past will be fully recovered through future rates)
6. The province is contemplating deferring the recovery of a portion of the annual Global Adjustment Smoothing Account (comprised primarily of the electricity costs paid to the generators) over a period of 25-30 years, so that costs incurred would be fully recovered through future rates.
7. The *Electricity Act, 1998* and the *OEB Act, 1998* would be amended through legislation to require the deferral of the recovery of the Global Adjustment Smoothing Account and the future recovery in rates charged to customers.

[1] http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/556699/view/Dec_Order_IESO_20161229.PDF

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8. The OEB would grant generic deferral or variance accounts to capture the difference between the amounts paid to generators and others, and the amounts collected in rates. Furthermore, the interest and ancillary costs related to the contemplated transaction would also be included in future rates charged to customers. In summary, the legislation would create a right to collect the incurred cost.

9. The IESO would change its accounting policies to permit the recognition of the economic impacts of rate regulation as from the 2016 financial year. IESO would adopt the guidance of ASC 980 *Regulated Operations* to better reflect the economic substance of its operations and enhance the transparency and accountability of its financial reporting.

Appropriate Accounting Principle for issue #1

ASC 980 Regulated Operations

- 980-10-15-2 *"The guidance in the Regulated Operations Topic applies to general-purpose external financial statements of an entity that has regulated operations that meet all of the following criteria:*

  (a) The entity's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.

  (b) The regulated rates are designed to recover the specific entity's costs of providing the regulated services or products. This criterion is intended to be applied to the substance of the regulation, rather than its form. If an entity's regulated rates are based on the costs of a group of entities and the entity is so large in relation to the group of entities that its costs are, in essence, the group's costs, the regulation would meet this criterion for that entity.

  (c) In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the entity's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs."

- 980-10-20 Glossary, Definition of incurred costs *"A cost arising from cash paid out or obligation to pay for an acquired asset or service, a loss from any cause that has been sustained and has been or must be paid for."*

- 980-10-05-8 *"Unless an accounting order indicates the way a cost will be handled for rate-making purposes, it causes no economic effects that would justify deviation from the GAAP applicable to business entities in general. The mere issuance of an accounting order not tied to rate treatment does not change an entity's economic resources or obligations. In other words, the economic effect of regulatory decisions—not the mere existence of regulation—is the pervasive factor that determines the application of GAAP. 980-340 – Other Assets and Deferred Costs."*

- 980-340-25-1 *"Rate actions of a regulator can provide reasonable assurance of the existence of an asset. An entity shall capitalize all or part of an incurred cost that would otherwise be charged to expense if both of the following criteria are met:*

  (a) It is probable (as defined in Topic 450) that future revenue in an amount at least equal to the capitalized cost will result from inclusion of that cost in allowable costs for rate-making purposes.

  (b) Based on available evidence, the future revenue will be provided to permit recovery of the previously incurred cost rather than to provide for expected levels of similar future costs. If the revenue will be provided through an automatic rate-adjustment clause, this criterion requires that the regulator's intent clearly be to permit recovery of the previously incurred cost.

  A cost that does not meet these asset recognition criteria at the date the cost is incurred shall be recognized as a regulatory asset when it does meet those criteria at a later date."

- 980-340-40-1: *"If at any time an entity's incurred cost no longer meets the criteria for the capitalization of an incurred cost (see paragraph 980-340-25-1), that cost shall be charged to earnings."*

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- 980-350-50-1: *"In some cases, a regulator may permit an entity to include a cost that would be charged to expense by an unregulated entity as an allowable cost over a period of time by amortizing that cost for rate-making purposes, but the regulator does not include the unrecovered amount in the rate base. That procedure does not provide a return on investment during the recovery period. If recovery of such major costs is provided without a return on investment during the recovery period, the entity shall disclose the remaining amounts of such assets and the remaining recovery period applicable to them."*
- 980-340-55-2: *"In some cases, a regulator may approve rates that are intended to recover an incurred cost over an extended period without a return on the unrecovered cost during the recovery period."*
- 980-340-55-3: *"The regulator's action provides reasonable assurance of the existence of an asset (see paragraph 980-340-25-1). Accordingly, the regulated entity would capitalize the cost and amortize it over the period during which it will be allowed for rate-making purposes. That cost would not be recorded at discounted present value. An exception to this general rule is provided for costs of abandoned plants."*

Issue #1: Can the IESO recognize deferral or variance accounts related to the annual Global Adjustment Smoothing Account as a regulatory asset on its statement of financial position?

US GAAP includes special accounting provisions that are applicable to entities with activities that are subject to rate regulation (see White Paper - Adoption of the Guidance in ASC 980 Regulated Operations). The result is that rate regulated entities are required to recognize regulatory assets and liabilities provided the following three criteria are met:

Criteria	Comment	Evaluation
The entity's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.	IESO has unrecognized variance accounts related to the MDMR (smart meters), that have been approved by the OEB in accordance with the Electricity Act and the OEB Act (see Appendix A). It is important to note that Hydro One and OPG are both consolidated into the province's books, are both regulated by the OEB and their respective regulatory assets and liabilities are reported in the province`s books.	Met
The regulated rates are designed to recover the specific entity's costs of providing the regulated services or products.	Currently, the rates approved by the OEB are designed to recover the IESO's costs of providing the regulated services and the pass-through related to the energy purchased from the generators. The contemplated transaction is based on the fact that the OEB would grant generic deferral or variance accounts to capture the difference between the amounts paid to generators and others, and the amounts collected in rates. Furthermore, the interest and ancillary costs related to the contemplated transaction would also be included in future rates charged to customers. In summary, the legislation would create a right to collect the incurred costs.	Met

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In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the entity's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs."	Since the deferral or variance accounts would be sold to the OPG Trust at least on a monthly basis and cash would be received on the same day, this criteria would be met. This criteria would need to be monitored on a yearly basis to ensure that IESO and the OPG Trust would be able to recover the future deferred amount taking into account the levels of demand or competition during the recovery period.	Met
Conclusion: The three criteria would be met.		

Conclusion: Based on the assumptions mentioned above, IESO should be able to recognize a regulatory asset for the deferral of the annual Global Adjustment Smoothing Account. As mentioned in the ASC 980 guidance above, it is important that an accounting order be issued by the OEB which indicates the way the incurred costs would be handled for rate-making purposes as the OEB's action provides reasonable assurance of the existence of a regulatory asset.

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2. Derecognition of regulatory assets (deferral and variance accounts)

Background and Assumptions for issue #2

The facts, circumstances, and assumptions relevant to the specific transactions are as follows:

1. The annual Global Adjustment Smoothing Account that would be deferred in the deferral or variance accounts (the "Asset") would be significant.
2. The IESO does not currently have the financial capability to finance the Asset and is contemplating selling the Asset to a Trust to be set-up by OPG (the "OPG Trust").
3. The OPG Trust would be consolidated by OPG.
4. Proposed terms of the sale agreement between the IESO and the OPG Trust:
   - The sale contract would be structured as an absolute sale, which would assign future economic benefits or cash flows related to the Asset exclusively to the OPG Trust.
   - The arrangement would be structured whereby there is no recourse or obligations remaining of IESO related to the Asset.
   - The arrangement is not considered to be a financing transaction as IESO would have no obligations to the OPG Trust after the Asset is sold to the OPG Trust.
   - IESO would not retain any rights or benefits from the Asset.
   - IESO would not have any rights to interest or penalties on the Asset once it has been transferred to the OPG Trust.
   - The contract would be clear that IESO cannot pledge the Asset as collateral to obtain future cash flows or financing.
   - IESO would continue to collect related cash flows on the OPG Trust's behalf and remit those cash flows to the OPG Trust without material delay. In addition, IESO would not be entitled to reinvest such cash flows, except for investments in cash or cash equivalents during the short settlement period from the collection date to the date of required remittance to the OPG Trust, and interest earned on such cash and cash equivalents is passed to the OPG Trust. The contract would define IESO's role strictly as that of agent, under a pass-through arrangement.
   - Servicing, origination, and arrangement fees, would be collected by IESO in rates charged to ratepayers as part of its market dealings.
   - The Asset would be sold to the OPG Trust at least, on a monthly basis and cash would be received on the same day.

Appropriate Accounting Principles for issue #2

Public Sector Accounting Standard ("PSAS") 3210, *Assets*, defines an asset as "*... economic resources controlled by a government as a result of past transactions or events and from which future economic benefits are expected to be obtained.*" [par. 3]

.04 *"Assets have three essential characteristics:*

(a) they embody future economic benefits that involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash inflows, or to reduce cash outflows;

(b) the public sector entity can control the economic resource and access to the future economic benefits; and

(c) the transaction or event giving rise to the public sector entity's control has already occurred."

.22 *"Control of an economic resource and of access to the future economic benefits are essential characteristics of an asset, whereas possession or ownership is not."*

.24 *"A public sector entity may act as trustee when it administers trusts on behalf of the beneficiaries specified in the agreement or statute. As trustee, the public sector entity merely administers the assets, following the terms*

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and conditions set out in the agreement. It does not control the asset because it does not have access to the future economic benefits. Those benefits flow to the beneficiaries."

As noted in PS1000 Financial statement concepts:

.37 *"An item is not an asset of a government if it lacks one or more of the essential characteristics listed in the preceding paragraph. Thus, for example, an item does not qualify as an asset of a government if the item involves:*

(a) no future economic benefit;

(b) future economic benefit, but the government cannot obtain it; or

(c) future economic benefit that the government may obtain, but the events or circumstances that give the government control of the benefit have not yet occurred."

As noted in PS3450, derecognition of a financial liability:

.042 *"A government should remove a financial liability (or part of a financial liability) from its statement of financial position when, and only when, it is extinguished (i.e., when the obligation specified in the contract is discharged or cancelled, or expires)."*

.043 *"A financial liability (or part of a financial liability) is extinguished when the debtor either:*

(a) discharges the liability (or part of it) by paying the creditor, normally with cash, other financial assets, goods or services; or

(b) is legally released from primary responsibility for the liability (or part of it) either by process of law or by the creditor. (When the debtor has given a guarantee, this condition may still be met.)"

.046 *"Payment to a third party, including a trust (sometimes called "in-substance defeasance"), does not, by itself, relieve the debtor of its primary obligation to the creditor in the absence of legal release."*

.047 *"If a debtor pays a third party to assume an obligation and notifies its creditor that the third party has assumed its debt obligation, the debtor does not derecognize the debt obligation, unless the condition in paragraph PS 3450.043(b) is met. If the debtor pays a third party to assume an obligation and obtains a legal release from its creditor, the debtor has extinguished the debt. However, if the debtor agrees to make payments on the debt to the third party or direct to the original creditor, the debtor recognizes a new debt obligation to the third party."*

Issue #2: Can the IESO derecognize the deferral or variance accounts related to the annual Global Adjustment Smoothing Account upon sale to the OPG Trust?

PS3210 does not specifically address the derecognition of a regulatory asset as the concept of a regulatory asset does not exist under PSAS.

As mentioned above, regulatory assets do not meet the definition of intangible asset or financial asset. Specifically, regulatory assets do not meet the definition of financial asset because they are imposed on customers through the tariff (i.e., imposed by the OEB) and do not represent a right to receive payments from another party as a result of a contract.

More generally, PSAS.3210.37 suggests that an asset would no longer be recognized when it fails to meet the definition of an asset.

Based on PS1000.37(b), an item does not qualify as an asset of a government if the item involves future economic benefit, but the government cannot obtain it.

Based on the assumptions mentioned above, the legal title of the Asset would be transferred to the OPG Trust, as well as, ALL risks and rewards, including the following:

- the contract would define IESO's role strictly as that of agent, under a pass-through arrangement;
- all cash flows related to the Asset would be transferred without material delay to the OPG Trust;
- rights to interest or penalties on the Asset would be for the benefits of the OPG Trust;
- IESO cannot pledge the Asset; and
- no recourse or obligations remaining of IESO related to the Asset.

Ontario

IESO should also evaluate whether the sale of the Asset should in fact be considered as a borrowing arrangement. In the absence of detailed guidance on this subject, we can analogize to the guidance in PS3450 *Financial Instruments* for the derecognition of a financial liability. Par. 43 states that *"A financial liability (or part of a financial liability) is extinguished when the debtor is legally released from primary responsibility for the liability (or part of it) either by process of law or by the creditor. (When the debtor has given a guarantee, this condition may still be met.)"* Based on the assumptions mentioned above, since the legal title of the Asset would be transferred to the OPG Trust, as well as, ALL risks and rewards, it can be concluded that the sale of the Asset is not a borrowing arrangement.

Conclusion: Based on the proposed terms of the sale agreement between the IESO and OPG Trust mentioned above, the deferral or variance accounts would be derecognized at the point where the IESO would derive no future economic benefit from it. This would occur where the IESO ultimately transfers the rights, risk and rewards related to those deferral or variance accounts to the OPG Trust. This would occur on the receipt of cash from the OPG Trust.

Ontario

Appendix A:

Extract from the "DECISION and ORDER issued by the OEB on March 28, 2013" available on the IFRS website

Proceeding on the Ontario Energy Board's own motion to review the options for and ultimately determine the appropriate allocation and recovery of the Smart Metering Charge pursuant to section 19 of the Ontario Energy Board Act, 1998.

THE BOARD ORDERS THAT:

Effective May 1, 2013, the Smart Metering Entity charge to be levied and collected by the Smart Metering Entity from all Distributors identified in the Board's annual Yearbook of Electricity Distributors shall be $0.788 per month for each Residential and General Service <50kW customers for each distributor. The Smart Metering Entity charge shall be in effect from May 1, 2013 to October 31, 2018. The number of Residential and General Service <50kW customers to which the Smart Metering Entity charge will be applied to shall be in accordance with the methodology set forth in the Settlement Agreement attached as Appendix A.

http://www.ontarioenergyboard.ca/oeb/_Documents/EB-2012-0100/dec_order_IESO-SME_20130328.pdf

Ontario

OPG Memo

ONTARIO POWER GENERATION

February 27, 2017

Mr. Serge Imbrogno
Deputy Minister,
Ministry of Energy
4th Floor, Hearst Block
900 Bay Street
Toronto, Ontario
M7A 2E1

Dear Deputy:

Below is a summary of OPG's preliminary views on the implementation of the Province's proposed Global Adjustment Smoothing Account and financing structure. These views are contingent on the proposed terms and conditions that were sent to the Ministry of Energy on February 21, 2017.

Understanding that the finalization of the legal terms, the Trust indentures, financing structure and other detailed terms will take several months and will involve collaboration between legal counsel, input from capital markets, parties involved and other stakeholders, this letter is intended to provide the guideline and framework which could form the foundation of the plan.

Please do not hesitate to contact me if you have any questions regarding this summary.

Sincerely,

Mr. Ken Hartwick
Chief Financial Officer and Senior Vice President, Finance
Ontario Power Generation
W: 416-592-6985
C: 647-544-6985
ken.hartwick@ opg.com

cc. Jeff Lyash, President and CEO, OPG

Background:

The Province has indicated that it will take steps to reduce electricity bills in the near term. It has identified reductions in the Global Adjustment Charge (GAC) charged to electricity customers as a means to achieve its policy goals. The Province is proposing to temporarily reduce the amount of the GAC charged to electricity customers (primarily RPP-eligible customers). The exact quantum and duration of the program is still not known but based on discussions with the Province GAC charges of approximately $2-5B per year for the next 5-10 years would be deferred and collected over future periods commencing after the deferral period. A combination of senior debt and subordinated debt (mainly sourced by additional equity from the shareholder) would be issued to fund the amount deferred. The financing cost of the debt and other costs of running the program would form part of the amounts recovered from customers over the term of the program.

The Province has requested that OPG administer the GAC deferral, because of OPG's participation in the market, regulatory knowledge and the potential ability to consolidate the activity and accounting with OPG. Given the significant amount of financing required for the GAC deferral, OPG has developed a financing structure (depicted below) to:

- restrict the risk to OPG;

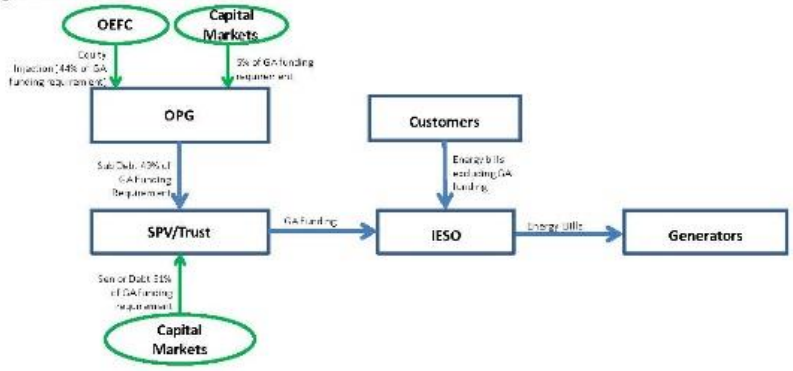
Ontario

- maximize the cost-effectiveness of the Trust or the Special Purpose Vehicle ("SPV") financing vehicle; and
- allow for consolidation into OPG financial statements.

The success of this structure is dependent on achieving a number of objectives which are reviewed in the following sections:

A. Ability to Recognize an Asset and Record Revenue
B. Ability to Consolidate the SPV into OPG
C. Ability to Finance
D. External Assessment
E. Risk Summary

All of the percentages shown in the graphic below are indicative and will be highly dependent on the legislation that the Province will enact:



Process:

The IESO will effectively sell the 'right to collect' deferred future revenue from ratepayers (GA Recovery Right asset) to the SPV in return for cash proceeds. In order for the SPV to purchase this asset the SPV will obtain the financing from two key sources: 51% directly from capital markets and 49% as subordinated debt from OPG. OPG will obtain 44% of this financing as an equity injection from the Province and 5% from capital markets.

A. Ability to Recognize an Asset and Record Revenue

Accounting Requirements under International Financial Reporting Standards (IFRS)

1) It is our understanding that the IESO and KPMG have concluded that the sale of this 'right to collect' future revenue (or regulatory asset) is not a financing transaction and will not be recorded as a financial liability. Based on that conclusion, the right to collect will be accounted for as an intangible asset in the SPV.

2) In order to the SPV to record this right as an intangible asset, the right must meet the following conditions:
   - The intangible asset must be separable and arise from a contractual or legal right (i.e. mandated by the Legislation and SPV Indenture Agreement).
   - The SPV must have the control and power to obtain future economic benefits from the intangible asset.
   - The SPV must be able to demonstrate that the intangible asset is purchased at fair value.

3) In order for the SPV to recognize appropriate revenue to offset any ongoing costs, the Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis. This may result in additional amounts to be deferred to achieve the desired customer impact. Payment of revenue to the SPV is also important to service the interest expenses of the debt.

B. Ability to Consolidate the SPV into OPG under IFRS

OPG 'Control' of the SPV - Accounting Requirements

1) In order to meet the accounting definition of 'control', accounting guidance must be considered. There are no bright lines to determine whether OPG has exposure, or rights, to variable returns from its involvement with the SPV, or whether it has the ability to affect the returns of the SPV through its power over the SPV. Rather, all facts and circumstances are considered when assessing whether an entity has control over another entity. Based on the relevant accounting guidance under IFRS, OPG has proposed terms necessary to demonstrate that OPG has control over the SPV. OPG's external auditors, Ernst & Young, has provided their concurrence that based on the information provided to them to date that the following conditions should permit consolidation of the SPV by OPG.

Directive:

1. The SPV must be undertaken by OPG as a business initiative on its merits. A Shareholder Directive is to be limited to direct OPG to investigate the option of establishing a SPV vehicle to administer, finance and operate the Global Adjustment plan. The control, risk and rewards of that SPV will determine its consolidation into OPG as a business enterprise.

SPV:

2. The SPV should not operate in a predetermined way such that OPG does not have decision-making authority over the SPV's ongoing activities after its formation (i.e. should not operate on 'autopilot').
3. OPG must have the ability to appoint and remove the Trustee (or Board of Trustees), with no veto right by the Province. No party shall have the ability to remove OPG from its role and authority in the SPV.
4. The Province cannot have the right to veto OPG's decisions about the relevant activities of the SPV. OPG must have the power over the relevant activities of the SPV and be compensated. The relevant activities of the SPV include (but are not limited to) the evaluation and decisions on financing alternatives, duration, and the strategy to minimize financing costs. OPG must have the power to establish operating and capital budgets of the SPV.
5. OPG must have the power to determine or change operating and financing policies of the SPV, which will affect the variability of risks and returns.
6. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    - The SPV
    - Any of OPG's investments in the most subordinated debt of the Trust
7. OPG must own greater than 50% of the most subordinated debt and targeted to be no less than 5%[1] of the total debt of the SPV. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources. A quantitative analysis should be performed at a later date to corroborate the appropriateness of the 5% threshold to support that the 5% subordinated debt investment is sufficient to absorb most of the expected variability in the SPV.
8. OPG must have the ability to earn variable returns by exercising its authority, which shall be accomplished as follows:

[1] While the rest of the letter refers to a 10% investment in the most junior subordinated debt with OPG owning 5%, it should be noted that OPG should own more than 50% of the most subordinate debt. For simplicity, the degree to which OPG's ownership beyond 50% is not shown in this letter.

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a. The cash flow from the restructured asset shall include interest determined based on a relevant benchmark that is appropriate relative to the restructured asset, plus an appropriate margin consistent with the relevant market and other risks
b. OPG shall have the authority to determine the financing strategy, which will vary the financing costs with the objective of enabling the SPV to achieve a more favourable return compared to the return from the restructured asset
c. The SPV shall establish classes of liabilities (senior, subordinated and the most subordinated). The classes would allow the SPV to delineate financing of lower risk investment and investment that would bear higher residual risk. The delineation would limit OPG's self-funded investment to a reasonable level in order to allow OPG to remain a self-sustaining entity.
d. OPG shall, through its ownership of the most subordinated liability, be able to capture and retain the pricing difference between cost of financing and benchmark for interest on the restructured asset, or any residual risk of restructured asset. The targeted return of the subordinated liability should be reflective of the underlying risks and compensate holders for active management that would be required.
e. OPG should participate in the detailed design of the above and the SPV documentation to ensure that it has substantive power and variability, which will allow OPG's Board of Directors to evaluate the opportunity as a business initiative instead of through a shareholder directive.

Nothwithstanding the above, under certain Defined Forced Majeure for emergency events (e.g. unlikely credit market event or disruption where it is not possible to borrow from the market at a reasonable rate), the OEFC may provide bridge financing beyond the designated percentage for a defined period. The relevant terms should ensure that this temporary measure does not detract from the rights of OPG to direct all of the relevant activities of the SPV. Additionally, OPG should not be protected from risk of loss by the OEFC with respect to its subordinated investment, nor should it lose its right to derive the residual returns should such bridge financing be required.

Legislation

9. The Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis, so that the SPV is able to recognize appropriate revenue to offset any ongoing costs.
10. The Legislation must dictate the manner in which the restructured asset would be determined, collected, and the period of collection, so that the determination of the restructured asset will not be subject to the Province's decisions on an ongoing basis, but determined based on a formula. Alternatively, the Legislation may allow for an adjustment to the pre-determined deferral formula based on specific parameters that would limit the adjustment to the restructured asset. Adjustments beyond the specific parameters would require approval by the Board of Trustees.
11. The Legislation must be written to avoid legal or constitutional challenges and be irrevocable to reduce the cost of borrowing and with a specific formula which determines the deferral amount. As irrevocability would be difficult under Canadian law one mitigation would be to provide a Provincial guarantee which only applies with cancellation or amendment of the legislation.
12. The spirit of the above terms should be reflected in the SPV Indenture Agreement as well as Legislation, wherever possible.

2) The Trust is expected to be financed as follows:
- 51% senior secured debt from external markets
- 39% senior subordinated debt from OPG (via Province equity injection into OPG)

Ontario

- 10% junior subordinated debt from OPG (5% from external markets and 5% from Province equity injection into OPG).

When assessing control, an investor shall consider the nature of its relationship with other parties and whether those parties are acting on the investor's behalf (i.e. they are 'de facto agents'). If OPG is assessed to be a 'de facto agent' of the Province, it will compromise the ability for OPG to consolidate the Trust. The split above is to meet the following conditions to ensure that OPG is not considered a 'de facto agent' of the Province:

- The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
  - The Trust
  - Any of OPG's investments in the most subordinated debt of the Trust
- OPG must own greater than 50% of the most subordinated debt and targeted to own no less than 5% of the total debt of the Trust. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources.

3) The Province will need to conclude on whether OPG still meets the definition of a Government Business Enterprise as defined under Public Sector Accounting Board standards in order to obtain the preferred consolidation treatment after the transaction. We also recommend that the Province to undertake the analysis deemed necessary to confirm the accounting treatment in its consolidated Public Accounts, including if the recognition of the intangible asset would result in an offsetting liability in the Public Accounts.

C. Ability to Finance

Property Right or Right to Collect
Legislative Requirements for Financing

The GA Recovery Right must be structured to encompass the following elements:

- Right to recover from and bill Ontario electricity customers for (1) the principal amount of GA that is being deferred, (2) all interest and other financing costs incurred in respect of the deferral of the GA, (3) all fees, expenses and other administrative costs associated with such financing;
- Repayment/amortization schedule as agreed by the IESO and any purchaser of such GA Recovery Right (or pursuant to a pre-defined schedule/formula that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis);
- Repayment/amortization schedule must include a true up mechanism to ensure all costs associated with the deferral can be recovered from customers;
- IESO may dispose of the GA Recovery Right, provided that any such disposition shall be a true sale and absolute transfer to the purchaser of the IESO's right, title and interest in and to the GA Recovery Right;
- Purchaser will have the right to require the IESO (or any successor) to collect the principal amount of GA Recovery Right, together with interest, financing and administration costs, on the agreed repayment/amortization schedule;
- Right must be irrevocable and, if amended by future governments, debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment;
- GA Recovery Right will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity; and
- Make certain amendments to the Electricity Act to allow OPG to implement the SPV financing structure (e.g. allowing OPG to create subsidiaries and holding companies, and to have a beneficial interest in the SPV, etc). This would provide flexibility to accommodate possible variations to the financing structure that may be desirable over time.

Detailed legislative requirements are specified in the attachments as follows:

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Attachment 1 Legislative requirements to allow deferral of global adjustment amounts to be financeable

Attachment 2 Statutory amendments

The proposed financing structure for the SPV is:

	Risk Profile	Source	% of Total Funding Requirements
Tranche A Senior Debt	The least risky	Capital Markets	51%
Tranche B Sub Debt	In between A&C	OPG via OEFC	39%
Tranche C Sub Debt)	The most risky	OPG via OEFC	5%
		OPG via Capital Markets	5%

SPV structure is used to accomplish the following:

- SPV holds right to charge customers for the benefit of debt holders;
- Allows the financing vehicle to be ring-fenced from OPG as an SPV structure is set up as generally single purpose entities with no other operations that could add risk to the SPV, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings;
- Enables SPV to potentially get a higher credit rating than OPG;
- Supports consolidation with OPG provided accounting requirements are satisfied;

This approach supports a number of objectives of the GA Recovery Right:

- 51% external senior debt supports separation of the SPV from the Province
- 5% junior subordinated debt establishes OPG's "at risk" equity which supports separation of the SPV from the Province
- Subordinated debt provides flexibility to the financing structure and additional credit support to external debt holders
- Subordinated debt sourced from OPG (mainly funded by equity injection from the Province) minimizes impact on OPG credit metrics reducing risk of an OPG rating downgrade that could result in the SPV being consolidated directly with the Province as the SPV would be considered an arm of the Province.

Recent transactions used as precedents are:

Duke Energy Florida Project Finance LLC
June 2016
5 series of bonds totalling USD$1.3B
Weighted average life from 2 to 19 years with interest rates from 1.2% to 3.1%
Credit rating AAA

Utility Debt Securitization Authority
Sponsored by Long Island Power Authority
March 2016
Amount issued USD$0.6B
Weighted average life of 12 years and weighted average yield of 2.7%

August 2016
Amount issued USD$0.5B
Weighted average life of 7 years and weighted average yield of 2.0%

Credit rating AAA

Cumulative outstanding (including previous issuances): USD$4.2B

D. External Assessment

Shakerhill Partners, an external advisor, identified the following items in an assessment of the structure and financeability of the structure:

- The structure is financeable however there are a number of significant risks to the structure:
  - Canadian and Ontario law does not provide the same protection to property right as exists in the US federal and state constitutions to limit the ability of governments to adversely impair contracts to the detriment of the holder;
  - Legislation could mitigate some of the risks – deferred recovery asset to be "uncapped", regular semi-annual true up to ensure recovery, Province provides sufficient committed liquidity to the IESO so that temporary shortfall in recovery does not affect payments to SPV, term of the deferral recovery substantially exceeds the longest maturity of debt of the SPV and that true-up mechanism take account of potential for currency, interest rate and duration mis-match between the debt of the SPV and the recovery mechanism;
  - Size of the program may be too large for Canadian securitization market requiring access to the US securitization market;
- Final maturity of debt should not exceed 30 years from inception of the program
- True up mechanism should be designed such that the forecast of recovery is less than 10% of the customer bill under downside scenarios to limit growth of the deferral balance as a higher portion of the customer bill increases the political risk to debt holders which could result in a lower credit rating and potential impact on financeability
- Securitized debt products are specialized and price at a premium to other fixed rate instruments however a successful program supported by a strong credit rating this premium could shrink over time to a minor spread over Provincial debt
- OPG's credit rating should be maintained provided sufficient equity is injected to maintain credit metrics
- While the structure is not expected to impact the Province there are risks that the program could negatively impact the rating agencies view of the Province's financial management.

E. Risk Summary

i. Consolidation

- Elements of the proposed structure were established to support consolidation of the SPV into OPG. These items may not be sufficient to establish OPG as risk owner of the SPV and the SPV may need to be consolidated directly with the Province.

ii. Financeability

- The legislation establishing the structure and the property right for recovering the financing and associated costs may not be adequate for financing purposes resulting in more expensive financing or an inability to obtain the required external financing.

iii. Cost of Financing

- Future governments may enact legislation that changes the right of the SPV to recover amounts from customers.
- The right to recover amounts from future customers must be irrevocable and subject to full recovery from the government in the event that future governments reduce or eliminate the recovery. A legal structure that is weaker than the precedent US transactions increases the risk to debt holders and the cost of financing.
- Interest rates on bonds in the securitization market are higher than equivalent rated bonds. Rate for a AAA securitization credit is about 50 bps higher than GOC (rated AAA) for a 5 year term. This difference is attributable to the specialized structure of the bond, smaller investor pool for this bond, smaller size of the market and higher perceived risks of the bond.
- Any regulator involvement must not be seen to modify any terms of debt issued or the property right securing the debt as this would increase risk to debt holders.

- It may not be possible to issue debt to match the terms of the deferred asset so shorter term debt would be used which raises risk to re-finance the maturing debt as the market may no longer be interested in this product. As well, underlying reference interest rates may be higher and the market may require a higher spread to invest in this product.
- With the GA Recovery Right program continuing for 10 years, debt issued over this period is subject to changes in both the underlying reference interest rates and appetite of the market for this product.

iv. OPG Credit Rating

- Minimizing the impact of significant additional debt on OPG's credit rating is dependent on higher EBITDA arising from earned income on the GA Recovery Right in excess of external debt. Ability of the SPV to record revenue reflecting the growth in asset value.
- Potential OPG credit rating downgrade if legislative structure is not adequate to support long term recoverability, inability to record revenue from growth in asset value or agencies view equity injection as debt.
- OPG credit rating downgrade could result in loss of GBE status or result in SPV being consolidated directly with the Province.

Attachment 1

LEGISLATIVE REQUIREMENTS TO ALLOW DEFERRAL OF GLOBAL ADJUSTMENT AMOUNTS TO BE FINANCEABLE

The IESO currently has a right to collect GA monthly from ratepayers through provisions in the *Electricity Act, 1998*. It is proposed that collection of a certain portion of the monthly GA be deferred for collection in the future, and that the right to recover the deferred GA from ratepayers be used as a basis for structured financing/securitization.

The current proposal is for a trust to be created as a financing vehicle (the "**Trust**") in connection the deferred GA. The Trust will finance the deferral of the GA by purchasing the right to recover such deferred GA from the IESO for the principal amount of the GA being deferred. For example, if the amount of GA that is being deferred is $200 million in a given month, the Trust will purchase from the IESO the right to future recovery of the deferred GA and the associated financing costs (including interest and transaction costs) for $200 million in cash.

The Trust is expected to finance these purchases from the IESO through a combination of senior secured financing raised in the capital markets and subordinated financing from OPG (the funding for which will mostly be from equity injections from the OEFC/Province).

For accounting purposes, OPG will need to have the ability to direct the activities of the Trust, through a services agreement and/or through the Trust's constating document.

Based on securitized financing raised by utilities in the US (backed by utility cost recovery orders) and the current regulatory framework in Ontario, the legislation in Ontario would need to be amended to provide the following, at a minimum:

1. The IESO will be empowered to create an asset (the "**Regulatory Asset**") consisting of all right, title and interest in and to:

   (a) right to recover from and bill Ontario electricity ratepayers for:

   (i) the principal amount of GA that is being deferred for collection;
   (ii) all interest and other financing costs incurred in respect of the deferral of the GA (whether through senior debt raised in the public markets or subordinated debt raised from OPG or others); and
   (iii) (subject to the comments in paragraph 5 below in respect of OPG's internal administrative costs only) all fees, expenses and other administrative costs associated with such financing, including up-front and ongoing financing costs and any indemnity payments;

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all on such repayment/amortization schedule as agreed by the IESO and any purchaser of such right (or pursuant to a pre-defined schedule/formula in the legislation that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis); and

(b) all revenues, collections, claims, rights to payments, money or proceeds arising from the rights and interests set out in paragraph (a) above, regardless of whether such revenues, collections, claims, rights to payments, money or proceeds are imposed, billed, received, collected or maintained together with or commingled with other revenues, collections, rights to payments, payments, money or proceeds.

2. The IESO may dispose of the Regulatory Assets created from time to time on such terms as the IESO determines in accordance with the terms of directives to be issued to the IESO from time to time by the Minister, provided that any such disposition shall be a true sale and absolute transfer of the IESO's right, title and interest in and to a Regulatory Asset to the purchaser of the Regulatory Asset.

3. The Regulatory Assets will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity thereof.

4. The legislation will need to recognize the Regulatory Assets as amounts that may be recovered by the IESO (e.g. it could be designated as a "GA Deferral" and would be included in the amounts collectible by the IESO through the GA collection mechanism, and would include interest and financing costs).

5. The purchaser of the Regulatory Asset will have the right to require the IESO (or any successor) to collect the principal amount of GA deferred, together with interest, financing and administration costs, on the agreed repayment/amortization schedule. **[NTD: In the LIPA securitization rate order, if the entity that is authorized to collect rates to service the bonds ends up defaulting, there is the ability to request a court to order "sequestration" and payments of amounts owing to the owner of the Regulatory Asset. Consider whether to include a similar right here. Alternatively, consider whether a security interest over the moneys collected by the IESO could be provided to the purchaser.]**

OEB would be provided with oversight over the internal administrative costs collected by the Financing Trust. This could be accomplished by (a) providing the purchaser of the Regulatory Asset with the right to require

Ontario

the IESO or a successor to collect only the principal amount of GA together with interest and financing costs and third party fees and expenses, and (b) requiring the IESO to collect amounts through the global adjustment and make payments to the purchaser of the Regulatory Asset with respect to the internal administrative costs incurred by the purchaser in connection with the purchase and management of the Regulatory Asset and the Financing Trust, in accordance with the order of the OEB then in effect. Under this mechanism, the OEB would be required to review the purchaser's internal administrative costs through a streamlined process and issue such orders in accordance with rules to be prescribed under a new regulation under the OEB Act, which would clearly limit the OEB's scope of review and could establish the basis for the purchaser to receive an appropriate fee for its services.

6. In the event that any action is taken or permitted by the Province or any regulatory authority that limits, alters, or impairs the value of a Regulatory Asset or reduces the ability of the IESO or the purchaser of the Regulatory Asset to collect or recover the costs associated therewith, the owner of the Regulatory Asset and the holders of any bonds or other securities issued to finance the purchase of the Regulatory Asset, will have a right of action against the Province for any damages suffered as a result of such amendment.

Ontario

Attachment 2

STATUTORY AMENDMENTS

The following is preliminary and is based on our current understanding of the proposed structure and objectives. For example, we have assumed that the structure will not entail the insertion of a new Holdco between OPG and the Province. As these aspects are refined, some of the suggested amendments described below may not be needed and other aspects that we are not aware of may need to be considered. Accordingly, these suggested amendments are provided for discussion purposes and are subject to change. We would welcome the opportunity to work with OPG and the Ministry on refining the scope and substance of required legislative and regulatory amendments.

A. Amendments to Implement Structure

Certain *Electricity Act, 1998* amendments would be needed to implement the anticipated structure (which we understand, as noted above, would not include a Holdco), as follows:

- **Section 53.1(1):** Amend to permit owning and operating generation facilities through subsidiaries (not only directly through OPG). In addition, amend to permit OPG to administer, manage, loan moneys to and have a beneficial interest in, if applicable, Financing Trust.

- **Section 53.2:** Amend to permit the Minister to acquire, hold, dispose of or otherwise deal with securities or debt obligations of, or any other interest in, OPG or any subsidiaries. This is to accommodate possible variations to the financing structure that may be desirable over time.

- **Section 53.■ (new):** New statutory section to permit the Minister to enter into arrangements relating to an exercise of powers under 53.2.

- **Section 53.■ (new):** New statutory section providing that creditors of Financing Trust have no recourse to the assets of OPG or any of its subsidiaries (other than Financing Trust, if applicable). In addition, consideration should be given as to whether the Act should be amended so that the Financing Trust cannot be wound up or liquidated.

B. Miscellaneous Corporate Items to Address

- **OPG Articles:** Amend the OPG's articles to remove the private company restrictions.

- **MOA with Province:** Consider whether any amendments to OPG's MOA with the Province are required to contemplate the Financing Trust.

C. Amendments Under Electricity Act to Implement GA Smoothing

Ontario

Based on our understanding that the global adjustment smoothing mechanism is intended to benefit residential and small business customers only and that the Minister will be responsible for determining how much global adjustment smoothing is to be applied in a given month, if any, amendments to the *Electricity Act, 1998* and Ontario Regulation 429/04 (Adjustments Under Section 25.33 of the Act) would be needed to implement the mechanism, as follows:

(i) Electricity Act:

- **Section ■ (New):** Establish a new power for the Minister to make directives to the IESO in relation to the global adjustment smoothing mechanism and, particularly, for purposes of establishing global adjustment smoothing amounts from time to time (expected to be monthly). To the extent possible, the directive power should be drafted so as to limit the ability for a future Minister to require the IESO to do anything that would materially and adversely affect the Financing Trust or its lenders. **[NTD: While our understanding is that the Minister would direct this, we note from other materials we have seen that OPG may instead be recommending a formula approach. It is not clear what the formula would look like, where it would be set out or how it would be applied and by whom]**

- **Paragraph 25.33(1):** This section says that IESO shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of market participants reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require IESO to ensure that, over time, payments by prescribed classes of market participants also reflect amounts paid to Financing Trust. **[NTD: Not certain this is needed if only to benefit residential and small business consumers, who are not market participants. May be needed in reference to payments from distributors and retailers]**

- **Paragraph 25.33(2):** This section says that distributors and retailers shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of consumers reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require distributors and retailers to ensure that, over time, payments by prescribed classes of consumers also reflect amounts paid to Financing Trust.

- **Note**: As described below, the regulation will need to include new requirements for the IESO to record the global adjustment smoothing amounts in one or more variance accounts and to use those amounts to offset amounts otherwise recorded in the variance accounts under Section 25.33(3) of the Act. For context, we note:

    - Section 25.33(3) says that adjustments under (1) or (2) relating to electricity consumed by consumers whose rates are determined by

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the OEB under s. 79.16 of the OEB Act (i.e. RPP Customers) shall instead be made in accordance with the regulations to one or more variance accounts established and maintained by the IESO.

- Section 25.33(4) says IESO, distributors and retailers shall make and receive such payments, set-offs and credits as may be required or permitted by the regulations with respect to consumers described in (3), i.e. RPP Customers.

- Section 25.33(5) says that IESO shall establish and maintain such variance accounts as may be needed to record all amounts payable or receivable by it under 25.33.

(ii) O. Reg. 429/04 (Adjustments Under Section 25.33 of the Act):

- **Section 1(1):** Consider adding definitions for "Financing Trust" and "global adjustment smoothing amount" or such other terms as may be preferred.

- **Section 1.2(1) (New):** Add section providing that, for the purposes of this Regulation, the global adjustment smoothing amount for a month is the amount determined by the IESO in accordance with a directive from the Minister under section ■ of the Electricity Act in respect of the month. **[NTD: See above note re use of Minister directives]**

- **Section 1.2(2) (New):** Consider adding a section providing that the IESO shall publish the global adjustment smoothing amount for a month by no later than the 10th business day of the following month [to align with general publication requirements for global adjustment under s. 1.1(2)].

- **Section 10(1):** Amend formula for calculating Class B GA rate by subtracting the global adjustment smoothing amount for a month from "M", which is the total amount of the global adjustment for the month. The global adjustment smoothing amount could be designated as "X", such that the formula would be (M-X-N)/(P-Q). Define "X" as the global adjustment smoothing amount for the month as determined by the IESO in accordance with the Minister's directive under section ■ of the Electricity Act for the month. **[NTD: See above note re use of Minister directives]**

- **Section 10.1 (New):** Add new section to deal with adjustments under subsection 25.33(3) of the Act, i.e. in respect of RPP consumers. This section should require the IESO to establish, within the variance account(s) it maintains pursuant to subsection 25.33(3) of the Act, one or more subaccounts in which it shall record the global adjustment smoothing amounts applicable to the classes of consumers described in subsection 25.33(3) of the Act. This section must also specify that the IESO shall apply the amounts recorded in the subaccounts against the balances in the variance accounts for purposes of section 79.16(3) of the OEB Act.

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- **Note:** This is a key aspect because, when the OEB determines RPP rates, it must take into account the balances in the variance accounts established by the IESO under s. 25.33 of the Electricity Act and make adjustments with a view to eliminating the balances within 12 months. This proposed new section 10.1 causes the IESO to reduce (in the near term) the variance account balances by the global adjustment smoothing amounts, as provided by Financing Trust, thereby enabling the OEB to determine RPP rates that, despite being lower for RPP consumers in the near term, still eliminate the relevant variance account balances within 12 months.

- **Paragraph 11(2)2.ii:** Amend the formula for calculating the allocation of global adjustment for a month to a licensed distributor that is a market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x (R+S-T)]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 11(2)3:** Amend the formula for calculating the allocation of global adjustment for a month to each Class B market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x U]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 16(7)4:** Consider amending the description of "Global Adjustment" that is required to be included on certain invoices so as to inform consumers that their portion of the global adjustment for the month (i) may have been reduced by the application of a global adjustment smoothing amount from the Financing Trust, or (ii) may include amounts payable to the Financing Trust in respect of global adjustment smoothing amounts previously applied.

- **Section 20(1):** This section establishes an obligation for the Ontario Electricity Financial Corporation and every licensed distributor that is a market participant to give the IESO such information as the IESO may require for the purposes of the Regulation in the form specified by the IESO and before the expiry of the period specified by the IESO. Consider amending to extend this obligation to the Financing Trust.

- **Section 20(6):** This section provides that on request by the OEB, the IESO, a licensed distributor, an embedded generator, a retailer or the OEFC shall give the OEB such information relating to this Regulation as the OEB may require, in the form and within the period specified by the OEB. Consider amending to extend this obligation to the Financing Trust.

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D. Amendments Under OEB Act to Implement Cost Recovery for Financing Trust

Amendments to the *Ontario Energy Board Act*, including amendments to O. Reg. 95/05 (Classes of Consumers and Determination of Rates) and the introduction of a new regulation, would be needed to implement a cost recovery process for the Financing Trust in relation to the global adjustment smoothing mechanism, potentially with limited OEB oversight, as follows:

(i) Ontario Energy Board Act:

- **Section 78(3.3):** This provision establishes an obligation for the OEB, when determining rates for the retailing of electricity, to take into account balances in variance accounts established under section 25.33 of the Electricity Act and to make adjustments "with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct." Consider whether any amendments are needed, and confirm this works with the framework being proposed.

- **Section 78.7 (New):** We understand that the Province may want the OEB to have an oversight role. One possible approach would be to establish a new statutory section establishing that the IESO shall make payments to the Financing Trust with respect to the internal administrative costs incurred by the Financing Trust in connection with the purchase and management of the Regulatory Asset and the Financing Trust. Such payments by the IESO would need to be made in accordance with the order of the OEB then in effect, which orders shall be made by the OEB in accordance with rules prescribed under a new regulation.

    - The new regulation would need to be clear that the OEB does not have jurisdiction to consider the principal amount or any interest, financing costs, third party fees or expenses. Rather, OEB's role would be limited to considering the internal administrative costs of the Financing Trust and ensuring the Financing Trust receives an appropriate fee for its services, all of which would be recovered by the Financing Trust from the IESO, which would collect those amounts in the global adjustment. Note that, if this approach is accepted, the IESO and distributors and retailers would need the authority to collect such amounts as part of the GA and IESO would need the authority to pay such amounts to the Financing Trust. As such, additional amendments would be needed under O. Reg. 429/04.

- **Note:** Section 79.16 of the OEB Act does not require changes, but the significance of this provision should be understood.

    - Section 79.16 gives the OEB responsibility for determining electricity commodity prices for eligible consumers. Eligibility is determined under Reg. 95/05 (Classes of Consumers and Determination of Rates), which is also known as the Regulated Price Plan (RPP) Regulation.
    - Section 4(2) of the RPP Regulation defines RPP-eligible consumers as low volume consumers (i.e. those who annually use less than 150,000 kWh

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or such other amount as prescribed), consumers with demand of 50 kW or less, residential consumers that have accounts with distributors, consumers who annually use 150,000 to 250,000 kW of electricity, and consumers who have accounts with distributors if in the farming business.

- Paragraph 6(1)3 of the RPP Regulation provides that "In determining the rates (for RPP-eligible consumers), the Board shall forecast the cost of electricity to be consumed by the consumers to whom the rates apply, taking into consideration adjustments required under section 25.33 of the *Electricity Act, 1998* and shall ensure that the rates reflect those costs."
- The Ontario Energy Board has developed a Regulated Price Plan Manual (revised February 16, 2016) to describe the processes and methodologies it uses for determining electricity commodity prices that are charged to RPP consumers pursuant to Section 79.16 of the OEB Act and paragraph 6(1)3 of the RPP Regulation.

(ii) O. Reg. 95/05 (Classes of Consumers and Determination of Rates)

- **Paragraph 6(1)3:** Amend so as to require the Board, when forecasting the cost of electricity to be consumed by the consumers to whom the rates apply, to take into consideration not only the adjustments required under section 25.33 of the Electricity Act but also the application or prior application of global adjustment smoothing amounts determined by the IESO in accordance with Minister directives under section ■ of the Electricity Act, and to ensure that the RPP rates reflect those amounts. **[NTD: See above note re use of Minister directives]**

(iii) New Regulation (Payments to the Financing Trust)

- If the OEB is to be given the role of reviewing and approving the recovery of OPG's internal administrative costs for the Financing Trust under the potential section 78.7 (see above), then this regulation should describe the process and criteria pursuant through which the OEB would determine the amounts that the IESO would be required to collect through the global adjustment, in accordance with section 25.33 of the Electricity Act, and pay to the Financing Trust in respect of the provision of global adjustment smoothing amounts. This part of the regulation should establish:

  - any reporting requirements from the Financing Trust and/or the IESO to the OEB in connection with the global adjustment smoothing mechanism;
  - the frequency of the OEB making determinations under this part of the regulation;
  - the process through which the OEB shall make these determinations, which should be a streamlined administrative process rather than a public hearing process or, if a hearing is needed, then the scope of the proceeding should be clearly and narrowly constrained so as to deter intervenor involvement, lengthy proceedings and reduce/eliminate risk to recovery by Financing Trust;

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- the basis for the OEB's determinations as to the payments that shall be made to the Financing Trust, which should specify that:
  - the Financing Trust shall recover its prudently incurred internal administrative costs on a forecast basis each year;
  - the Financing Trust shall receive an appropriate fee each year (with some guidance as to what would be appropriate); and
  - the approved payment amounts shall be collected by the IESO through the global adjustment and paid to the Financing Trust in accordance with the order of the OEB then in effect. Note that O. Reg. 429/04 would likely need amendments to permit IESO (and distributors and retailers) to collect these amounts through the global adjustment.

Ontario

Lenczner Slaght

130 Adelaide St W
Suite 2600
Toronto, ON
Canada M5H 3P5

T 416-865-9500
F 416-865-9010
www.litigate.com

February 27, 2017

Ian Binnie
Direct line: 416-865-3737
Direct fax: 416-865-3740
Email: ibinnie@litigate.com

BY E-MAIL & REGULAR MAIL

Mr. Patrick Monahan
Deputy Attorney General
Ministry of the Attorney General
720 Bay Street
8th Floor
Toronto, ON M7A 2S9

Dear Mr. Deputy Attorney General:

RE: Proposal to Reconfigure Global Adjustment Charges

You have asked for my opinion on the degree of constitutional risk if the government were to reconfigure the Global Adjustment Charge to residential and small business users so as to pay down the debt over 30 years instead of the current 20 year period. The 20 year period was designed to coincide with the duration of current contracts between ISEO and the relevant electrical generation companies. The 30 year period is the assumed useful life of 30 years of the relevant electricity generating equipment.

To the extent either the 1 to 20 year consumer group or the 20-30 year consumer group is subsidizing one or other, there will be a mismatch between the cost of facilities and those whom the facilities benefit, which may attract a constitutional challenge on the basis that the Global Adjustment has become a tax rather than a regulatory charge.

The degree of constitutional risk, in my opinion, is in direct proportion to the extent the government is **not** able to show a proper match between the cost of providing facilities

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for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.

The legal principles applicable to regulatory charges are quite straight-forward (although there is not much jurisprudence in the area). The hurdle for the government in any constitutional challenge will be to assemble credible expert evidence to demonstrate that (1) indeed the relevant electricity generating facilities *do* have a useful life of 30 years or more, subject to maintenance and refurbishment costs, and (2) that the allocation of the Global Adjustment aligns, to the extent practicable, with the costs and benefits of the electricity generators and avoids cross-subsidization of current consumers by future consumers.

In terms of Risk Assessment, I understand the government has not yet obtained an expert opinion from outside experts on the expected economic lifetime of the electrical generators now subject to the Global Assessment. I suspect there may be difficulty in obtaining such a comprehensive opinion from credible experts for the reasons discussed below. On that basis, I would assess the current proposal as **moderately high risk**, defined as being an outcome difficult to predict because there are good arguments on both sides, but in the end the Supreme Court of Canada would be more likely than not to find *against* constitutional validity.

If the government were able to assemble the necessary expert evidence, of course, the risk would be re-assessed at a lower level, but how much lower depends on the quality of the expert evidence and the extent to which the Global Adjustment is shifted, i.e. reduced

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to current consumers at the expense of the back end (20 to 30 year) consumers, who are assumed to be still benefitting from the current generating equipment.

Overview

The Global Adjustment Charge reflects all of the fixed costs, including capital costs, of Ontario's electrical generation facilities subject to 20 year contracts[1], as well as the premium paid to renewal energy producers and the cost of conservation programs (such as subsidies to small scale manufactures to replace inefficient equipment with more efficient equipment). In 2016, the Global Adjustment Charge, allocated in different amounts to different classes of consumer, stood at $12.3 billion dollars.

Much of the Global Adjustment was necessitated by substantial capital investment promoted by the Province with financial incentives to reduce greenhouse gas emissions and decarbonize and modernize Ontario's electricity infrastructure.

The Global Adjustment paid by consumers is a regulatory charge. Residential and small business users [class B consumers] pay the Global Adjustment based on the volume of electricity they use each month. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the facilities that are subject to the regulatory scheme or they create the need for (and benefit from) those facilities in the future.

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[1] Most generators in Ontario are on 20 year contracts. Assets with longer operating lives are provided longer term contracts in recognition of their extended benefit. These longer term assets are not part of the current proposal.

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The Ministry of Energy is concerned that the present allocation of the Global Adjustment over 20 years is "*front*-end loaded" in that the consumers in the initial 20 year period are paying upfront for facilities that will still be utilized to provide electricity to consumers in the 20-30 period who will, to that extent, get a free ride. There is an equal and opposite concern that by shifting costs to the 20-30 year customers, the government may in reality be disproportionality *back*-end loading the Global Adjustment with the effect that the 20-30 year users will be subsidizing the 1-20 year users.

Accordingly, the Ministry of Energy anticipates a constitutional challenge based on the shifting of a portion of the existing Global Adjustment charges from current users to the 20-30 year group.

The judges can be expected to be aware of the difficult political problem of high energy costs in Ontario, and will therefore take a careful look at the government's evidence in support of the re-allocation of the Global Adjustment.

The Elements of a Proper Regulatory Scheme

In *Westbank First Nation vs. British Columbia Hydro and Power Authority*, 1999 [3 SCR] 134 at para. 30, the Supreme Court of Canada grappled with the distinction between a tax, a user fee and a regulatory charge. This was said to depend on:

> ...whether the levy's primary purpose is, in pith and substance; (1) to tax, i.e. to raise revenue for general purposes; (2) to finance or constitute a regulatory scheme i.e. to be a regulatory charge or to be ancillary or adhesive to a regulatory scheme; or (3) to charge for services directly rendered i.e. to be a user fee

In a regulatory scheme, as stated, the regulator is expected to align costs and benefits. While this can rarely be done with precision, and the courts will defer to some extent to

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the regulator's attempt to approximate a "smoothing out" of the allocation of the costs associated with the regulatory scheme, nevertheless a court would have to be satisfied that the regulator is attempting in good faith to match the cost of facilities with the class of consumers who will benefit from the generation capacity of those facilities, or whose energy needs have required their creation. As Gonthier J. stated in *Westbank* at para. 28:

> **Finally, the individual subject to the regulatory charge will usually either benefit from the regulation, or cause the need for the regulation:** *Magnet*, supra at page 459. In *Allard*, supra, the gravel trucks caused the need for the repair to the roads; in *Ontario Home Builders*, supra, the developers and the new homeowners caused the need for the new schools. In both cases, the individuals being charged also benefited from the regulation. (emphasis added)

A levy will be held to be **a regulatory charge** where there is:

(i) A complete, complex and detailed code of regulation;

(ii) A regulatory purpose which seeks to affect some behaviour;

(iii) The presence of actual or properly estimated costs of the regulation; and

(iv) A relationship between the person being regulated and the regulation, where the person being regulated either benefits from, or causes the need for, the regulation.

See: *620 Connaught Limited vs. Canada (Attorney General)*, 2008 SCC 7, 2008 1 SCR 132 While each of these four elements would have to be addressed in the evidence, the third and fourth elements can be expected to be the most contentious.

On the other hand, a levy will be held to be **a tax** if it is:

(i) Enforceable by law;

(ii) Imposed under the authority of the legislature;

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(iii) Levied by a public body;

(iv) Intended for a public purpose; and

(v) Unconnected to any form of regulatory scheme.

Re: Eurig Estate, [1998] 2 SCR 565 at paras. 15 and 43. The anticipated constitutional challenge is expected to argue that the Global Adjustment imposed on the 20-30 year consumers is a direct tax beyond the legislative competence of the Province.

The Estimated Costs and Useful Life of the Generating Facilities

(i) "Smoothing" the Charges Over 30 Years

The Global Adjustment would be funded by loans. The OPG or OPG Trust would need to borrow an additional amount each year equivalent to the shortfall brought about by the reduction in the Global Adjustment charge to current consumers. If for example the OPG Trust were to borrow $2.2 billion dollars in the current year, and transfer that amount to ISEO, the need to impose a Global Adjustment for 2017 would be reduced by that amount, and the charge to the 2017 consumer would be lowered. However, the shortfall will have to be recouped from future consumers to repay the loan. In other words, the total debt shifted into the 20-30 year period would be increased by a like amount (plus accumulating interest). The court would require an explanation of how the debt is created, financed, and allocated year by year to year 30.

Of course the lower the amount of Global Adjustment allocated in the early years, the higher the borrowings that will have to be paid off in subsequent years and the greater the need to demonstrate that consumers in those later years will still benefit economically and proportionally from the current generating equipment.

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In the figures I have been shown, the borrowings necessary to defray part of the Global Adjustment otherwise to be imposed on Ontario Consumers in years 1 to 20 would peak around the midpoint of the 30 year period and thereafter decline to zero.

(ii) Impact of Projections of Potential Reductions in the Cost of Generating Electricity in years 1 to 20

The Ministry of Energy has projected electricity demand over the 30 year period. It is noted that if energy demand in Ontario is not as great in year 25 as predicted, there will be fewer consumers paying higher electricity bills than anticipated. Equally, of course, there could be developments (a drop in the price of natural gas for example) that will reduce the actual cost of generating electricity (as represented in the wholesale "spot" market). Such forecasts are inevitably somewhat speculative over this period. Such speculation is **not** relevant to the Global Adjustment analysis, in my opinion, because the Global Adjustment will be paid *in addition to* the cost of generation, whether the cost of generation is eventually shown to be higher or lower than anticipated. Declining costs would not affect the Global Adjustment levy, but would bring the overall burden on the consumer in year 25 below the currently anticipated level.

(iii) Useful Life of the Assets Financed by the General Adjustment

I am asked to assume that the bulk of the electricity generating assets have a useful life well beyond 20 years, but if (as expected) there is a challenge to the provincial re-allocation of the Global Adjustment, the Province will of course have to call expert evidence on that point.

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It may be a very complicated calculus to address the relative useful lifetimes of different types of electrical generators including wind, solar and biomass. There seem to be a number of question marks in this respect. Renewable energy technology is advancing rapidly. Prices of solar panels, it seems, have dropped over 20% in the last year. How much will 25 year old wind turbine technology be worth in 2040? Who can say? Developers of solar and wind power are obliged to put in place a "decommissioning" plan backed up (at least in some cases) by a performance bond. It will have to be established that the decommissioning is not triggered at the conclusion of the 20 year FIT plan (and the use of the land then restored to landowners). Much of Ontario's renewable energy facilities may have little economic value to consumers in the 20-30 year period, even though still able to produce electricity inefficiently.

If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, thereby failing to justify the imposition of an amortization of current equipment cost over the extended 30 year period, or if the Global Adjustment Charge is in the opinion of the Court disproportionality backend loaded in light of that declining benefit to future consumers, the Global Adjustment will not qualify as a regulatory charge.

(iv) Impact of Choosing Option 1 (Residential Bills Lowered 25%), Option 2 (20%) or Option 3 (18%)

The choice of option is significant because the greater the reduction of bills to current residential consumers, the greater the debt load pushed onto future consumers, and the more the Ministry's 30 year projections will attract judicial scrutiny. I expect the

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Province's expert would have to concede that projections into the 20-30 year time frame are inherently speculative (as to the useful economic life of the current renewable energy technology for example).

The constitutional issue remains the same: can it be demonstrated that the Global Adjustment will match costs and benefits as closely as is practicable, and not operate as a cross-subsidy of present consumers, who are the source of considerable political pressure. Judges do, as we know, read newspapers. The more the debt load is pushed onto future consumers based on 20-30 year projections, the bigger the challenge to the Province's experts to satisfy a court that the reduction is based on sound economics and a realistic appraisal of the future value of the current electrical generation facilities. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk, in my opinion.

Conclusion

If it can be established that the underlying electricity generating assets have useful life-expectancies beyond the terms of their 20 year contracts, with the result that future consumers whose electricity needs require the existence of the electricity generating infrastructure put in place in the initial 1 to 20 year period, and who will benefit from the existence of that capacity, I believe a Court would, in those circumstances, conclude that the consumers in the 20 to 30 year period could constitutionally be required to share equitably and proportionately in the cost of financing the required assets.

The challenge, in my view, is not with establishing the legal principles. The problem will be to find leading experts to convincingly establish the necessary facts.

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I would be glad to expand on this analysis or respond to any questions.

Yours truly,

Hon. Ian Binnie, C.C., Q.C.

IB/pc/kb

Ontario

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan
Subject:	Fwd: BN - Fair Hydro Plan - Social Programs
Date:	Wednesday, April 19, 2017 12:42:14 PM
Attachments:	BN - Fair Hydro Plan - Social Programs v4.docx ATT00001.htm

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I kind of asked them to go to you more so than me.

Begin forwarded message:

> **From:** Usman Zahid <Usman.Zahid@ofina.on.ca>
> **Date:** April 19, 2017 at 12:24:02 PM EDT
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Cc:** Emily Kerr <Emily.Kerr@ofina.on.ca>, Karim Javeri <Karim.Javeri@ofina.on.ca>
> **Subject: BN - Fair Hydro Plan - Social Programs**
>
> Hi John,
>
> Attached is the Fair Hydro Plan Social Programs BN for the document.
>
> Regards,
> Usman

PROVIDING TARGETED AND EXPANDED RELIEF FOR RURAL, REMOTE, LOW-INCOME AND FIRST NATIONS CUSTOMERS

ISSUE

Ontario's Fair Hydro Plan would lower electricity bills by 25 per cent on average for all residential consumers in the province. The plan also provides additional relief for people with low incomes and those living in eligible rural communities.

These new measures will cost the government up to $2.5 billion over the next three years.

Reference: Chapter 2: Helping You and Your Family; Section [X]: Reducing the Cost of Living

KEY FACTS

- The Ontario Electricity Support Program (OESP) is an income-tested, application-based program that lowers electricity costs for the most vulnerable, providing a rebate directly on bills. The Province is working with the Ontario Energy Board on the Province's proposal to increase the OESP monthly benefit amounts by 50 per cent which will significantly enhance the benefit eligible consumers receive. The OESP would also become available to more Ontarians by introducing new eligibility categories.
    - To help OESP-eligible Ontarians receive their credits, the government is pursuing automatic qualifications for customers who are enrolled in other provincial social assistance programs.
- The Rural or Remote Electricity Rate Protection (RRRP) program currently provides a rate subsidy to eligible rural and remote residential customers who face higher distribution costs compared to those in urban areas.
    - The Province intends to expand the RRRP to provide distribution delivery charge relief to a total of about 800,000 customers served by local distribution companies (LDCs) with the highest rates, including Hydro One R2 and R1 rate classes (residential low and medium density areas, respectively), Northern Ontario Wires Inc., Lakeland Power Distribution Ltd. (Parry Sound service territory), Chapleau Public Utilities Corporation, Sioux Lookout Hydro Electric Inc., InnPower Corporation, Atikokan Hydro Inc. and Algoma Power Inc.
- The Province is planning to introduce legislation that, if passed, would enable a First Nations On-Reserve Delivery Credit that would eliminate delivery charges for eligible households, saving them an average of about $1,020 per year.
- The Province has established an Affordability Fund to provide to provide support to Ontarians who do not qualify for low-income conservation programs so that they can adopt energy efficiency improvements to help reduce their future electricity bills. The fund was developed with input from electricity distributors and other stakeholders.

BACKGROUND

Ontario Electricity Support Program

- On April 23, 2014, the Minister of Energy requested that the Ontario Energy Board (OEB) provide options for the design, development and implementation of a long-term, rate-payer funded program, which is intended to provide qualifying low-income electricity consumers with a credit on their electricity bills. On March 26, 2015, the Ministry of Energy announced that it was proposing to launch the Ontario Electricity Support Program (OESP), which would provide an ongoing credit directly on the bills of eligible low-income customers. In late October 2015, the OESP began accepting applications.

- On March 2, 2017, the Ministry of Energy announced that the government would be increasing the available credits under the OESP by 50 per cent. It was also announced that OESP would now be funded by the government instead of by ratepayers.

Proposed Credit

- Ontario is increasing the OESP by 50 per cent, meaning that single, low-income consumers who receive the lowest credit amount would get an increase from $30 to $45 per month ($540 per year, an increase of $180), and the lowest credit for the enhanced scale would increase from $45 to $68 ($816 per year, an increase of $276).

- The higher credits resulting from the announced 50 per cent increase would be refined in consultation with the Ontario Energy Board. The tables below show the current monthly credits.

Current OESP Monthly Credit Amounts

Stepped sliding scale - benefit level		**Household size**						
		1 person	**2 persons**	**3 persons**	**4 persons**	**5 persons**	**6 persons**	**7+ persons**
Income bracket	**< $28,000**	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000	-	-	$30	$34	$38	$42	$50
	$39,001 - $48,000	-	-	-	-	$30	$34	$38
	$48,001 - $52,000	-	-	-	-	-	-	$30

- The OESP offers a larger credit to consumers whose homes are electrically heated, and those who rely on certain medical devices. Eligible First Nation and Métis households also qualify for a larger credit. The credit for those receiving a larger reduction is between $45 and $75 a month. The household income amounts listed in the table below are after tax, or net income.

Current OESP Monthly Credit Amounts – Energy Intensive

Stepped sliding scale - benefit level		Household size						
		1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7+ persons
Income bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000	-	-	$45	$50	$55	$60	$75
	$39,001 - $48,000	-	-	-	-	$45	$50	$55
	$48,001 - $52,000	-	-	-	-	-	-	$45

- The program is available to low-income customers who have accounts with electric utilities, unit sub-meter providers and retail energy companies.

- Customers must apply to the program online or through a designated intake agency. Ontarians requiring assistance with the application process would be supported by local social agency partners. A tailored communications and application process has been developed to support First Nation communities.
  - The Province is exploring automatic qualification for customers who are enrolled in other provincial low-income social programs

- Most eligible customers need to re-apply every two years or whenever their personal circumstances change. For example, eligible customers would need to re-apply if they move or experience a change in income level. An extended program eligibility period of five years is applicable for any account holder aged 65 and over, or those receiving a Canada Pension Plan disability pension.

- Ontario's Fair Hydro Plan announced that starting this summer, OESP will be funded by the government instead of ratepayers.
  - Currently, OESP is ratepayer funded through a per kilowatt hour charge on electricity bills. The charge is currently set at $0.0011 per kilowatt hour.

Rural or Remote Rate Protection

- Rural or Remote Rate Protection (RRRP) is a rate subsidy provided to rural or remote residential customers because the cost of distributing power to rural and remote areas is much higher than for urban areas.

- The RRRP is currently provided to approximately 350,000 rural residential customers in Ontario.
  - On January 1, 2017, the annual funding cap for RRRP was increased from $127 million to $243.4 million. This increase was announced during the speech from the Throne on September 12, 2016.
  - Currently, the RRRP program cost is recovered from all electricity customers in the province through a volumetric charge as required by O. Reg. 442/01, under the *Ontario Energy Board Act, 1998*.
  - The RRRP charge for 2017 is 0.21 cents per kilowatt hour, increasing from the 2016 charge of 0.13 cents per kilowatt hour.

- As part of the Fair Hydro Plan, the Province announced that it will expand the RRRP to provide distribution charge relief to additional customers served by LDCs with the highest rates. About 800,000 customers in total would benefit from the enhanced RRRP program.
    - LDCs that could benefit from the expanded RRRP include: Hydro One R2 and R1 customers, Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux lookout, InnPower, Atikokan and Algoma. The benefits would differ from LDC to LDC. Credit amounts would be set using the lowest cost distribution LDC from the group, as set by the Ontario Energy Board (OEB).

- Ontario's Fair Hydro Plan also announced that starting this summer, the Province would move to fund RRRP costs through the tax base.

First Nations On-Reserve Delivery Credit

- In 2016, the Ontario Energy Board (OEB) engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network.

- Following the engagement process the OEB recommended:
    - Eliminating the delivery charge for all on-reserve First Nations residential customers and removing the monthly service charge for customers of licensed distributors which charge a bundled rate. The OEB estimates this would provide residential customers an average monthly benefit of $85.
    - Automatically qualifying on-reserve First Nations residential customers (approximately 21,500 customers).
    - Enabling greater information sharing between distributors and Band Councils to identify all on-reserve First Nations customers.

- The Province is also moving forward in having the First Nations On-Reserve Delivery Credit funded by provincial revenues.

Affordability Fund

- As part of the Fair Hydro Plan, the Province also announced that it will launch a new Affordability Fund. The Affordability Fund will assist electricity customers who cannot qualify for low-income conservation programs.
    - The Affordability Fund will provide LDCs with an additional tool to help customers in need. LDCs would use the Fund to provide support to customers for energy efficiency improvements to help reduce their future electricity bills.

- The Province will work with Hydro One, in consultation with all other LDCs, to establish a Trust to serve as the administrator of the Affordability Fund.

- The Province will pay for the Affordability Fund through provincial revenues. No legislative amendments are required for this fund.

Prepared by: **Usman Zahid (5-1419) / Karim Javeri (5-1434) / Emily Kerr (5-8356)**
Branch: **Strategic Project Finance Branch / Corporate and Electricity Finance Division**

From:	Ronald Kwan
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	Fwd: Edits from Bevan
Date:	Saturday, April 15, 2017 7:24:57 PM

Hi,

Please review and was there other messaging?

Thanks,
Ron

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** April 15, 2017 at 7:23:44 PM EDT
> **To:** "Tim Schuurman (MOF)" <Tim.Schuurman@ontario.ca>
> **Cc:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>, "Scott Thompson (CAB)" <Scott.Thompson@ontario.ca>, "Ronald Jaikaran (MOF)" <Ronald.Jaikaran@ontario.ca>, "Selena Esmail (MOF)" <Selena.Esmail@ontario.ca>, "Rowe, Alana (MOF)" <Alana.Rowe@ontario.ca>, "David McLean (MOF)" <David.McLean@ontario.ca>
> **Subject: Re: Edits from Bevan**
>
> Hi,
>
> My recollection is that the $2.5 billion on average over ten years was used in Energy's deck for the media and that was then used to brief the FAO staff and I thought was provided to the AG staff too.
>
> I don't recall other messaging used for that.
>
> I will double- check.
>
> Ron
>
> > On Apr 15, 2017, at 5:21 PM, Schuurman, Tim (MOF) <Tim.Schuurman@ontario.ca> wrote:
> >
> > Ron, Gadi - these two follow ups are for you guys. If you could help us out by getting us some info and suggested wording by Monday at 10am, we can build it into the papers for final sign off.

Tim

From: Ingram, Kelsey (MOF) <Kelsey.Ingram@ontario.ca>

Sent: Saturday, April 15, 2017 3:06 PM

To: Jaikaran, Ronald (MOF); Rowe, Alana (MOF)

Cc: Schuurman, Tim (MOF); Jackson, Kelly (MOF); Mendes, Elizabeth (MOF)

Subject: Edits from Bevan

Hey Ron and Alana,

Please see below some notes/edits from Bevan. Is it possible to incorporate the first three edits for Monday's sign off?

Also we're expecting PO to get back to us on the name for KidsPharma as well as providing further language /detail on the Basic Income sites and the pilot project itself. I'll touch base with you guys as soon as I know more. We've been clear we need them to follow up by Monday morning.

Happy to discuss!

Cheers,

Kelsey

1 - On page 5 of Chapter 2 for the Fair Hydro Plan:

It currently reads: the reduction in the GA charge would be about

2.5B per year on average over the first ten years.

This is factually true but is not how we are presenting this (and I realise it is not as written about costs) as it might imply the cost is an additional 25B for the first and the following ten years which is not true for example. So we use 25B as total cost over x years. Or something like that. We had aproved language.

2 - On pg 16 of CH2- attached to charts of new osap examples

Can the osap calculator url be added

3 - A question related to Section B - Finances and Econ outlook, page 3 - Ontario's level of Accumulated Deficit as per cent of gdp.

Are there other jurisdictions, national or subnational (of a certain size) that use this measure as their overall deficit? Ie do not have to include capital debt expense. Top subnational etc, which we need (and already have) a full response to.

(this one is anticipating what the primary critique will be of our fiscal plan and trying to proactively defend our record...if we don't have time to incorporate it, we can look to include info into our comms materials).

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
To: John Kim; Emily Kerr
Cc: Gavin He
Subject: Fwd: Fair Hydro Plan
Date: Thursday, April 06, 2017 6:00:21 PM

Hi,

Can we respond?

Ron

Begin forwarded message:

> **From:** "Nguyen, Marianne (MOF)" <Marianne.Nguyen@ontario.ca>
> **Date:** April 6, 2017 at 5:57:43 PM EDT
> **To:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Cc:** "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
> **Subject: Fair Hydro Plan**
>
> Hi team,
>
> I'm writing a one pager on the FHP. Is there a handy table somewhere of the fiscal impact, broken down by the different elements? I know that was in one of the decks we used to brief the Minister towards the end of February, but I want to ensure I have the most up to date one.
>
> I would really appreciate if you could help me track this down ASAP.
>
> Thanks,
>
> _____
> **Marianne Nguyen**
> Senior Policy Advisor
> Office of the Honourable Charles Sousa
> Minister of Finance
>
> Office: 416-325-0007
> Mobile: 416-562-4452
> Email: marianne.nguyen@ontario.ca

From:	John Kim
To:	Ronald Kwan
Subject:	Fwd: GA Financing / TB Sub
Date:	Tuesday, April 25, 2017 7:17:30 PM
Attachments:	Finance Structure_GA_Rationale for 51%.docx ATT00001.htm

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FYI and I don't see the need for ieso item at tb submission but would you have a different view. Ieso financing is done via M of Finance authority as part of my original thinking

Begin forwarded message:

> **From:** "Montgomery, Kaitlin (MOF)" <Kaitlin.Montgomery@ontario.ca>
> **Date:** April 25, 2017 at 6:56:34 PM EDT
> **To:** "Kim, John (OFA)" <John.Kim@ofina.on.ca>
> **Subject: FW: GA Financing / TB Sub**
>
> Just wanted to check in – do you anticipate providing anything for the TB submission on the borrowing requirements of IESO? Or not needed? Just want to make sure I'm flagging incoming content to ENE.
>
> Thanks,
> Kaitlin
>
> ---
>
> **From:** Montgomery, Kaitlin (MOF)
> **Sent:** April 24, 2017 10:18 AM
> **To:** Kim, John (OFA) (John.Kim@ofina.on.ca)
> **Subject:** GA Financing / TB Sub
>
> Hey John,
>
> Just following up on our conversation Friday. You had asked about the rationale for certain levels of financing – passing this note along that we just received from OPG. Let me know if you have further questions on this.
>
> Secondly, I'm starting to pull together materials for the TB submission. The first is seeking appropriation for the equity injections, second is any PILs exemptions that the Province is comfortable with. Lastly, Scott thought you guys might also want something built into the submission about increased borrowing requirements of the IESO – would you be able to draft something for inclusion in the submission on this (if required)?
>
> Let me know what you think.
> Kaitlin

CONFIDENTAL **April 18, 2017**

Ontario Power Generation

Issue: OPG has indicated that for the Trust to be consolidated into OPG there is a need to have at least 51% of the debt financing of the Trust originate directly from the external market. This requirement is supported by specific technical guidance on the topic as set out below.

IFRS 10 – Consolidated Financial Statements requires an investor to consider whether there are other parties who are acting on behalf of the investor by virtue of their relationship with it. That is, IFRS 10 requires consideration of whether the other parties (i.e. OPG) are acting as de facto agents for the investor (i.e. Province). If OPG is considered a de facto agent, the consolidation accounting objective will **not** be met.

There are a series of references in IFRS 10 (Section B75) that support this conclusion. Each of these elements must be examined in their totality to successfully address the consolidation principal of the Trust. The importance of each element is amplified due to the fact that OPG is a related party to the Province, which increases the importance of other tests being met. These tests include:

a) a party that received its interest in the investee as a contribution or loan from the investor.
OPG will receive a 44% equity injection from the Province of Ontario, indirectly through the Ontario Financing Authority. Given that currently, the majority (currently 51%) of the Trust debt will be from External Markets and not the Province, it can be argued that OPG did not receive the majority of its interest in the investee as a contribution or loan from the Province. This criterion is not met and shows that OPG is a principal, not a de-facto agent.

b) a party that has agreed not to sell, transfer or encumber its interests in the investee without the investor's prior approval
There is a proposed clause that the Trust cannot be wound up without approval from the Minister of Energy, this criterion is met.

c) a party that cannot finance its operations without subordinated financial support from the investor.
OPG can finance its operations without subordinated financial support from the Province – criterion is not met.

d) an investee for which the majority of the members of its governing body or for which its key management personnel are the same as those of the investor.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

e) a party that has a close business relationship with the investor, such as the relationship between a professional service provider and one of its significant clients.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

Given the number of factors met above, there may be a view that OPG could be considered a de facto agent of the Province through its related party relationship (4 out of 6 items are met). It is of vital importance, and as concurred by EY, that the majority of the debt in the Trust is not more than 44% funded by the Province (note that the remaining 5% of debt has to be funded externally by OPG in order to show that OPG has equity that is not sourced from the Province at risk). If the debt in the Trust is seen by the External Auditors as being principally funded by the Province, OPG would fail 5 out of 6 criteria above and be considered a de facto agent. As a result, proposed consolidation accounting would fail.

From:	John Kim
To:	Adam Prokop
Cc:	Bruno Amara
Subject:	Fwd: Materials for Review draft OFHP legislation
Date:	Tuesday, April 04, 2017 9:48:27 AM
Attachments:	External - Draft 5 Annotated (Blks DS) GOV2016.146.e05 (April 3 2017).docx ATT00001.htm

---

Hi Adam,

Pls review and let me know on all province related items. Namely equity injection part. I don't think there is any mention but need confirm.

John

Begin forwarded message:

> **From:** Gavin He <Gavin.He@ofina.on.ca>
> **Date:** April 3, 2017 at 4:17:27 PM EDT
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Subject: FW: Materials for Review draft OFHP legislation**
>
> Hi John,
>
> Please note that there will be a OFHP legislation meeting tomorrow for MOF to review the first draft of the legislation. Ron would like you to join as well.
>
> Attached is the material for tomorrow's meeting (same Energy password for the price mitigation materials), and I will forward you the meeting invite too.
>
> Regards,
> Gavin He
>
> ---
>
> **From:** Cox, Hilary (ENERGY) [mailto:Hilary.Cox@ontario.ca]
> **Sent:** Monday, April 03, 2017 3:26 PM
> **To:** Tim Christie (ENERGY) <Tim.Christie@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Paul Johnson (ENERGY) <Paul.Johnson3@ontario.ca>; Dan Shear (ENERGY) <Dan.Shear@ontario.ca>; James Rehob (ENERGY) <James.Rehob@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com) <john.s.lee@opg.com>; Hilary Cox (ENE) <Hilary.Cox@ontario.ca>
> **Cc:** 'WONG Leslie -LAWDIV' <leslie.wong@opg.com>; 'Peter Hamilton'

<PHamilton@stikeman.com>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>; 'Ramchandani, Rima' <rramchandani@torys.com>; 'Glenn Zacher' <GZacher@stikeman.com>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; 'Anthony Martinello' <Anthony.Martinello@ieso.ca>; 'Mansoori, Nina' <nmansoori@torys.com>; 'Olusoga, Yinka' <yolusoga@torys.com>; 'Myers, Jonathan' <jmyers@torys.com>; JUDY.WILSON@blakes.com; 'ASHBOURNE, STEPHEN' <STEPHEN.ASHBOURNE@blakes.com>
Subject: Materials for Review draft OFHP legislation

Please see attached materials for Review of Draft OFHP legislation meeting tomorrow morning.

Hilary

Hilary Cox
Executive Assistant/Sr. Policy Advisor (A) | Assistant Deputy Minister's Office
Energy Supply Policy Division | Ministry of Energy
T: 416.327.7204 | Bb: 647.237.8140 |
E: Hilary.cox@ontario.ca

A proposal to create Legislation.

Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

ELECTRICITY ACT, 1998

1. (1) Section 1 of the *Electricity Act, 1998* would be amended by adding the following clause:

[Note: GGRA provisions have been removed for now. Please confirm if they should be re-inserted.]

(2) Clause 1 (f) of the Act would be struck out and the following substituted:

(f) to protect the interests of consumers with respect to the adequacy, reliability and quality of electricity service;

(f.1) to protect the interests of consumers with respect to the prices they pay for electricity, including protection of those interests through the Hydro financing initiative;

[Note: Since the Hydro financing initiative is a defined term and is clearly required to be implemented under the new substantive provisions of the Act, I'm still not sure why this needs to be addressed in the purpose clause. However, I have included a purpose provision as per your instructions.]

Article 1 – Purpose

The proposed new legislation will likely include a large number of provisions intended to support the "financeability" of the structure. As a result, it may make sense for (LSB is exploring the potential) the Bill to create a new stand-alone energy statute, much like the *Green Energy and Green Economy Act, 2009* created the *Green Energy Act, 2009*.

The new legislation would have a purpose clause that explains the objective of intergenerational fairness. This would be useful for the markets to see, and may

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help support the validity of the legislation from a constitutional law perspective (charge vs. tax)

x. Subsection 2 (1) of the Act would be amended by adding the following definitions:

"Financing Entity" means the trust established by Ontario Power Generation Inc. under clause XX (a) or the entity prescribed for the purposes of clause XX (b); ("French")

"hydro financing initiative" means those policies of the Government of Ontario related to its decision to ensure costs to Ontario electricity consumers are allocated fairly over time, taking into account the useful life of new sources of and technologies for electricity; ("French")

[Note: I have applied the precedent of the "smart metering initiative" as per your instructions. Just want to reiterate my concern that the reference to government policies is really vague (which initiative/ policies? At which point in time?) and I think this could cause lots of confusion, particularly if the policies evolve over time. It could also have unintended consequences.]

[Note: To consider -- by describing the initiative as we have in the above definition, we are potentially linking the deferred amount to amounts that would otherwise be paid for by consumers as part of the GA. If the deferred amounts are not all about "the useful life of new sources and technologies" then the description of the initiative should likely be broadened. (For example, if some of the deferred amount may be used to cover high wholesale prices, one could argue that the initiative is NOT about allocating costs fairly over time… it's just about pushing the cost increase to future consumers without considering what is "fair" across the generations.]

Article 2 - Definitions

The new legislation will include many new defined terms. One important term will be "Funding Shortfall" (or equivalent wording). This will be the net reduction in cash flows to IESO as a result of the reallocation of a portion of the Global Adjustment to later periods of time. Currently, the "Funding Shortfall" would be limited to the Global Adjustment attributable to the procurement contracts, but this is a question that still has to be settled.

Another important defined term that is worth noting is "Replacement Event". This is an event under which the market would want to replace a person who has responsibility to take essential actions under the program (including LDCs, IESO and OPG), like invoicing and collecting amounts.

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The triggering events are likely to include insolvency and breach of duty/obligation.

Another key defined term is "Transition Charge". This is the amount that will be calculated and applied to the "deferral consumers", based on the amounts of payments due under funding obligations incurred to cover the funding shortfall (i.e., what we have until now been calling "deferral repayments").

Another important defined term will be "Treasury Plan". This will be the written plan prepared by OPG relating to the sale of the "regulatory asset(s)" to the OPG Financing Entity (sometimes previously referred to as the "Financing Trust") and the debt issued by the OPG Financing Entity to the markets.

Another defined term will be "True-up Amount". This is a key provision for the market. It allows for a catch-up for estimate/actual adjustments and to address consumer non-payment credit losses.

A further defined term will be "Undertaking of the Province". This will be a promise by the Government not to impair the program. This will be expected by the market, even though it will be understood that there may be issues for investors to enforce the promise, or get damages if there is a breach.

x. (1) Subsection 6 (1) of the Act would be amended by adding the following clauses:

(q.1) to enter into agreements or arrangements with the Financing Entity;

(q.2) to engage in activities related to making payments to and receiving payments from the Financing Entity under Part V.2, as required under this Act, and to engage in related settlement activities;

Note: Is some of this covered already by clause (i)? Could we address this by expanding upon clause (i)? Trying to understand whether there is any potential overlap.]

(q.3) to engage in activities related to the [sale/disposition/conveyance/assignment] of the [right/regulatory asset] created under section XX, which activities may include,

[Note: As discussed, please confirm terminology.]

(i) incurring liabilities in relation to the [right/asset];

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(ii) [selling/assigning/disposing of?] the [right/asset] to the Financing Entity;

(iii) assigning [the right/asset] to third parties;

[Note: I don't understand (iii) -- I thought the rights to the asset were being assigned to the trust and nobody else?]

(q.4) acting as a recovery agent for the Financing Entity in relation to [the right/asset];

x. (1) Subsections 25.33 (1) and (2) of the Act would be repealed and the following substituted [TBD].

[Note: As per our telephone discussion today (March 27), there seems to be ongoing debate about the policy direction:

1. Do you want to amend the GAM so that the money received from the FE and the money recovered by the FE are part of the initial GA calculation?

2. Do you want to leave the GAM section as is and add a requirement (in a new section) for the IESO to conduct additional adjustments for a subset of the payments referred to in s. 25.33? This second adjustment would be engaged in after the existing GAM is calculated. So it would be a further adjustment of what has already been adjusted under the GAM.

Until this fundamental question is answered, we would be removing the proposed amendments to s. 25.33.]

OPTION 2:

Deferral adjustments, 25.33 amounts.

25.33.2 (0.1) For the purposes of this section and sections 25.34 and 25.35,

(a) "authorized entity" means **[the hydro financing trust established by Ontario Power Generation Inc. for the sole purpose of financing the recovery of the balance in the deferral account, or]** such **[other]** entity as may be prescribed by regulation;

(b) "deferral account" means the deferral account established under section 25.34;

(c) "deferral amount" means the amount recorded in the deferral account for each month during the deferral and recovery period;

(d) "deferral and recovery period" means the period from May 1, 2017 to April 30, 2047;

(e) "deferral consumer" means a consumer who is a member of a class of consumers prescribed by the regulations for the purposes of sections 25.34 and 25.35;

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[NTD: This will be set out in a new subection 4(3) of O. Reg. 95/05 and will reflect OREC-eligible consumers other than non-grid connected customers of IPAs (who would not pay a GA charge anyway). Note that this is not quite the same as "RPP-eligible" consumers.]

(f) "electricity supply cost" means the amount calculated according to the formula:

(A + B + C + D) - E

where,

A is the amounts paid by the IESO to generators, the Financial Corporation and distributors, whether the amounts are determined under the market rules or under section 78.1, 78.2 or 78.5 of the *Ontario Energy Board Act, 1998,*

B is the amounts paid by the IESO to entities with whom the IESO has a procurement contract, as determined under the procurement contract,

[NTD: A and B use exactly the same wording as is set out in (a) and (b) of the existing ss. 25.33(1).]

C is

[NTD: C is the "net new" costs associated with the GA deferral. These are costs that the IESO will record in the GA deferral account established under s. 25.34, and that the IESO (or its assignee) will subsequently recover. These costs consist of the interest and financing-related admin costs associated with the GA deferral (which costs will be flowed through from the hydro financing trust to the IESO). These costs do not include the principal amount deferred and recovered, since that is already captured as part of A and B.

The "net new" costs in C will be recoverable solely from a newly prescribed class of consumers - deferral consumers (i.e. those consumers who will benefit from the GA deferral). The rules for the recovery of these costs will be part of a new subsection 4(3) of the RPP Regulation.]

D is any other amounts that may be prescribed by regulation,

[NTD: Paragraph D would give us flexibility to add new cost categories by reg. if/as needed now or later.]

[GGRA-related amendments are removed for the time-being]

and

E is any other amounts that may be prescribed by regulation;

[NTD: Paragraph E would give us flexibility to add new cost categories by reg.

Question for leg counsel: If in the future HOEP were to exceed contract prices and/or regulated rates, presumably the formula would still work (i.e. in such case the amounts for A and B would simply be negative amounts)?] *[ntd-LSB: IESO appears to agree with that idea, based on our shared appreciation of how EA s.25.33 works today.]*

(f) "reduction period" means the period commencing May 1, 2017 and ending April 30, 2018;

(g) "RPP Regulation" means Ontario Regulation 95/05 (Classes of Consumers and Determination of Rates).

Electricity pricing adjustments

Adjustments by IESO

(1) The IESO shall, through its billing and settlement systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of market participants in Ontario as are prescribed by regulation, reflect the electricity supply cost.

Adjustments by distributors and retailers

(2) Distributors and retailers shall, through their billing systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of consumers in Ontario as are prescribed by regulation, reflect the electricity supply cost.

[NTD: There will be two "classes of consumers in Ontario that are prescribed" for the purposes of RPP-"plus" deferral – the EA regulation that "prescribes" these two classes will refer to (or be aligned with) the two classes as described in the RPP Regulation. 1) The first class are the deferral consumers (see definition above), and 2) the second class (or defined base consumer) will be the "proxy" Toronto Hydro consumer whose bill will only be allowed to increase year-over-year according to rules prescribed in a new s. 6.1 of the RPP Regulation.]

Variance accounts

(3) The IESO shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by it under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation. *[ntd-DAN: I left "this section"*

even though this provision is part of a new s.25.33.2 – did you want "this section" to refer to "section 25.33"? If so, then we'd add this to the list we've started referencing proposed new s.25.34 and s.25.35. Consider.]

[Drafting note: We can prescribe the different variance accounts that must be maintained, and the different amounts that must be tracked and accounted for, by the IESO. Among other things, the IESO will presumably need to establish variance accounts related to the GA deferral and payback, to take into account timing and other differences. Any financing costs associated with these variance accounts (over and above the financing costs passed through to the IESO by the authorized entity (the hydro financing trust) would be subject to Board scrutiny.]

Same, distributors and retailers

(4) Distributors and retailers shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by them under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation.

x. The Act would be amended by adding the following sections:

Deferral account

25.34 (1) The IESO shall establish a deferral account to record, for each month during the reduction period and the deferral and recovery period, the difference between,

(a) the amounts that would be payable by deferral consumers in respect of the electricity supply cost for the month under section 6.1 of the RPP Regulation; and

(b) the amounts payable by deferral consumers in respect of the electricity supply cost for the month under section 6.2 of the RPP Regulation.

[NTD: IESO to confirm whether the differences between (a) and (b) would be recorded monthly.

Explanatory note: The Board will determine a rate under a new s. 6.1 of the RPP Regulation that will essentially follow the same process the Board uses to establish the RPP rate, except that it will establish a rate for the deferral consumers (which is a slightly broader class than RPP consumers). The Board will also determine a "proxy" rate for the deferral consumers, calculated according to a different set of rules set out in a new s. 6.2 of the RPP Regulation. The rules in s. 6.2 will establish the "proxy" rate for a "proxy" Toronto Hydro customer consuming an average of 750 kWh/mth, to achieve an all-in tax-included total bill amount reduction of approximately 17% (the bill reduction for GA deferral + 8% OREC will result in an all-in bill reduction for May 1, 2017 – April 30, 2018 of 25% over the May 1, 2016 – April 30, 2017 period). There will be

additional rules dealing with bill increases and full repayment of the GA deferral by April 30, 2047.]

Note that because we refer to the new provisions in the RPP Regulation, we will need to amend that regulation *before* the introduction of the proposed legislative amendments. Drafting of the proposed RPP Regulation amendments is underway.

Do we need to create a parallel provision requiring distributors and retailers to establish deferral accounts as well?]

(2) The IESO shall record interest on the balance of the deferral account at a rate or rates reflecting the costs incurred by the IESO, or by any assignee under section 25.35, to finance the amounts recorded in the deferral account.

(3) The IESO shall also record in the deferral account the costs incurred by the IESO to finance the amounts recorded in the deferral account.

[NTD: This is a placeholder for what we will need here. The concept is that ss. (2) and (3) will ultimately apply to the interest and admin costs incurred by the hydro financing trust (assignee of the right of recovery under s. 25.35) in providing funds to the IESO to finance the GA deferral. Those interest costs and admin costs will be fully recoverable through section 25.35, subject to Board scrutiny presumably limited to verifying the calculations. This is not intended to address interest and costs incurred by the IESO and recorded in the variance accounts established under ss. 25.33(5).]

Recovery of GA deferral amounts

25.35 (1) The IESO shall have the right to fully recover the balance recorded in the deferral account. **[The Board shall authorize?]** recovery of the balance from the deferral consumers over the deferral recovery period in accordance with the prescribed rules.

[NTD: What role should the Board play in determining the amounts recovered each year (within the smoothing parameters that are prescribed)? For e.g., could the Board set rates such that the year-over-year increase in the proxy Toronto Hydro customer's all-in bill was less than the maximum permitted under the prescribed rules?

The prescribed rules will be set out in the new s. 6.2 of the RPP Regulation, which will determine how much the "proxy" Toronto Hydro customer's monthly average bill can increase year-over-year (after the reduction period). Basically, for the first four years after the reduction period, the increase will be limited to CPI. For the balance of the deferral and recovery period, the increases will be limited to 10%, with an overarching requirement that the deferral amounts be fully repaid by April 30, 2047.]

Assignment of right of recovery

(2) The IESO shall have the right to assign**[, in whole or in part?,]** to **[one or more?]** authorized entities, the IESO's rights under subsection (1).

[NTD: This is largely a placeholder for what needs to be addressed here. We will need to determine how to characterize this transaction. For e.g., will it be an outright assignment? Will it be a series of assignments? Should it be characterized as a "sale"? How will this transaction be implemented – e.g. by way of a contract between the IESO and the Trust? We will need the input of external counsel and others to ensure that it adequately supports the contemplated financings.]

Payments to assignee

(3) In the event of an assignment to an authorized entity under subsection (2), the IESO shall, through its billing and settlement systems, make payments to the authorized entity of the full amounts paid to the IESO in respect of the rights assigned.

[NTD: This is largely a placeholder for what needs to be addressed here. Iin addition to requiring IESO to make payments to the authorized entity, do we need to include explicit provisions giving the assignee the right to recover the amounts in the deferral account that are covered by the assignment?

We will need provisions dealing with billing and payment as between the authorized entity and IESO. We will also have to decide whether the interest and admin costs incurred by the authorized entity will simply be passed through to IESO, or whether the authorized entity (or OPG) will have an opportunity to keep any profits made on financing activities (swaps, etc.) by establishing some sort of "reference rate" that IESO would have to pay (and that might be different than the rate(s) the authorized entity would have to pay). A middle ground that could be considered would be to cap the amount of profits the authorized entity (or OPG) could make.

Along similar lines, the amounts charged by OPG to the authorized entity to provide admin services should be subject to Board review (e.g. for reasonableness). This would not jeopardize the ability of the authorized entity to recover all of its costs (since it would affect the amounts OPG could recover from the authorized entity).

We also need to contemplate a provision that if there is a change of law by the Government of Ontario that materially adversely affects the ability of the authorized entity to fully recover the assigned deferral account amounts, then repayment of those amounts will be accelerated and become immediately due and payable.]

x. The Act would be amended by adding the following provisions after s.29:

Transition Charges -- Ratepayer Obligation to Pay a Transition Charge

s.29.0.1 (1) Each consumer in the class of ratepayers to which this program applies (previously referred to as the "deferral consumers") will have a direct statutory obligation to the OPG Financing Entity to pay its share of the deferral repayments (principal, interest, financing costs).

Indebtedness of Ratepayers –
(2) This will be a debt owed by the consumer directly to the OPG Financing Entity. If it is not paid, the OPG Financing Entity can sue the consumer directly through the agreed procedures. This is identifying an explicit and identifiable revenue stream for the comfort of investors.

Separate tracking - distributors,
(3) This debt is separate from the debt owed by the consumer to its LDC, although the LDC will be the collection agent.

No set-off, etc. *[see similar provision at EA s.29.0.3(2)]*
(4) This debt cannot be netted out against any amount owed by the LDC to the consumer (e.g. year-end credit to consumer on equal monthly billing).

Allocation of Ratepayer Payments
(5) If a consumer pays less than its total invoiced amount, the payment will be allocated pro rata between the deferral repayment and the amounts owing to the LDC.

Transition Charges are Irrevocable

(6). This is intended to prohibit any reversal of amounts that must be paid to meet the terms and conditions of the funding obligations to be incurred under the program.

> **The deferral repayments are due regardless of whether a financing obligation incurred under the treasury plan is consistent with government policy at the time a related payment obligation arises.**
>
> **If the Fair Allocation Plan is amended after a funding obligation is properly incurred, any inconsistency in the payment profile will not impair the existing funding obligation or the pass-through of related payment amounts as Transition Charges.**

Anti-avoidance; No-by-pass

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(7) The idea here tracks the U.S. transactions, which say that the obligation of a consumer to pay Transition Charges cannot be "by-passed". If a consumer leaves the grid, he or she will still be obligated. See the highlighted text in the definition of "Ratepayer" for a sense of how this may be accomplished.

> **This concept is a key to a rated market financing and will need to be developed further.**
>
> **For example, self-generating customers could be charged a flat fee (for example, equal to the amount that would be payable by the "representative" Toronto Hydro customer that underpins the current government policy on the 25% or some other basis.)**

Distributor, agent for Financing Entity,
s.29.0.2(1) LDC is agent for the OPG Financing Entity. LDC must invoice the deferral consumer the deferral repayment amount - referable to the items described in "Finance Amount" (i.e., an amount already borrowed).

IESO - Calculation of the Period Transition Charge

(2) IESO will calculate the total amount of deferral financing that will be repayable in an applicable [e.g. 6 month] period.

(3) IESO will then determine the deferral repayments due from deferral consumers based on a prescribed methodology for allocating payments to individual deferral consumers.

Notice of Transition Charges, IESO to distributors

(4) IESO will then inform each LDC of the amount of the deferral repayments to be included in the invoices issued to each deferral consumer in the LDC's service territory.

Adjustments *[ntd: Consider – Deferral repayment amount final]*

(5) Deferral consumers cannot challenge the amount of the deferral repayment showing on their invoice unless there is a substantial calculation error.

Successors of Electricity Distributors –
(6) Any successor of an LDC will be bound by the same obligations as the original LDC re: billing and collecting deferral repayments.

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Successors of IESO –

(7) Any successor of the IESO will be bound by the same obligations as the original IES re: billing and collecting deferral repayments from distributors *[ntd-LSB: what about from consumers?].*

Appointment of an Alternative Invoicing Agent *[NTD – this provision may be moved closer to the powers/authorities of the OPG financing entity.]*

(8) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect deferral repayments. The LDC must sign whatever agreements and assignments are needed to enable the replacement agent to collect the deferral repayments from the LDC's deferral consumers.

Regulatory Asset Owner has Standing

(9) The OPG Financing Entity (or investors through their security) will be able to sue LDCs for failing to properly calculate or invoice the financing repayments.

29.0.3 Collections and Remittances [Collecting and Remitting Deferral Repayments]

(1) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC or the IESO, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect and remit deferral repayments. The LDC (or IESO, as applicable) must sign whatever agreements and assignments are needed to enable the replacement agent to collect and remit the deferral repayments. "Replacement Events" are necessary to investors to safeguard against a person holding money in a distressed circumstance.

No Set-off, etc. *[see similar provision at EA s.29.0.1(3)]*

(2) The deferral repayments cannot be netted out against any amounts owed by the party responsible for collecting those repayments.

Sequestration,

(3) If any LDC or the IESO fails to remit deferral repayments, the OPG Financing Entity can get a court to order the LDC (or IESO, as applicable) to require them do so.

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x. Subsection 53.1 (1) of the Act would be repealed and the following substituted:

Objects of Ontario Power Generation Inc.

53.1 (1) The objects of Ontario Power Generation Inc. include, in addition to any other objects, the following:

[Note: I know that the words "in addition to any other objects" appears in the current provision, but it seems very odd. This suggests that the objects are unlimited, which doesn't seem to be the intention but I could be wrong.]

1. Owning and operating generation facilities.

2. Establishing, operating and supervising the activities of entities for the purposes of supporting and promoting the government's hydro financing initiative.

3. Providing financial and other support to the IESO in its activities in relation to the hydro financing initiative.

4. Engaging in such financing, borrowing, lending and related activities and transactions to support the IESO with short-term or long-term financing.

5. Providing equity, not exceeding the prescribed amount, to support the financing capacity of the Financing Entity.

Subsidiaries

(1.1) Ontario Power Generation Inc. may create one or more subsidiaries in order to more efficiently conduct its activities or achieve its objects.

x. Section 53.2 of the Act would be repealed and the following substituted:

Rights of the Minister[1]

53.2 (1) The Minister, on behalf of Her Majesty in right of Ontario, may acquire, hold, dispose of and otherwise deal with securities or debt obligations of, or any other interest in, Ontario Power Generation Inc. or any of its subsidiaries.

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[1] FLS - this provision is based on s. 49 of the Act

Agreements

(2) The Minister, on behalf of Her Majesty in right of Ontario, may enter into any agreement or arrangement that the Minister considers necessary or incidental to the exercise of a power under subsection (1).

x. The Act would be amended by adding the following Part:

PART V.2
HYDRO FINANCING INITIATIVE

FAIR HYDRO FINANCING PLAN

Establishment and adoption of the Fair Allocation Plan

A. 1 (1) The Minister of Energy [may/shall] establish a "fair allocation plan"

(a) The purpose of the plan is generally to try and reallocate the portion of GA attributable to the procurement contracts over the anticipated useful life of the generation assets under those contracts.

- **This is the intergenerational funding of the Green Generation Initiaitves.**
- **One policy question is whether the amounts deferred and the period over which the deferred amounts are repaid are to be limited to the portion of GA attributable to the procurement contracts and to the anticipated useful life of the [renewable] generation assets under those contracts.**

- From a constitutional validity perspective (and hence a financeability perspective) these limits are very important.

-Financial/economic modelling to verify this link is required.

Principles and Parameters,

(2) Based on this initial description (which is only illustrative to advance the initial stakeholder discussion), the Minister would determine the details of the "fair allocation plan", but must take into consideration the following principles:

- **The deferred GA costs should be spread over a period not exceeding the anticipated remaining useful life of the generation assets under the procurement contracts**
- **The plan should specify the length of the "reference periods", to identify which deferral consumers are responsible for which deferral repayments**

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- **The share of the deferral repayments to be allocated to deferral consumers in each "reference period" should reflect a reasonable assessment of the remaining anticipated useful life of the generation assets under procurement contracts and perhaps to the benefits received by those deferral consumers from the procurement contracts (e.g. transition off coal)]**

- **No deferral consumer group should bear an unreasonably disproportionate share of the deferral repayments. That could be limited to a maximum amount, determined on a formula basis, if it makes sense tot he stakeholders**

- **In making the allocations, real (i.e. inflation-adjusted) dollars should be usedThe fair allocation plan is made using forward-looking information and projections.**

- **If, after the fact, the Minister determines that a Ratepayer Group paid more than would otherwise would have been the case had the projections for such period been accurate or other considerations come to light, adjustments to the plan could be made.**

Attribution Methodology

(3) The program will need to define how deferral consumers will be allocated an appropriate share of aggregate adjustment amount.

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

(4) Consideration will be needed regarding the level of review and confirmation of the plan is needed or appropriate. For example, should the scope of review be limited to calculations only? If there is a need for review, then consideration will be needed as to who will be the reviewer and under what authority, etc.

THE TREASURY PLAN

Power to Prepare and Implement the Treasury Plan –

A.2 (1) The "Treasury Plan" will be prepared by OPG. It must follow the requirements set out in this Part. Accounting considerations will need to be factored into this delegation, as well as the degree of province input initially and on an on-

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going basis. [Note for leg counsel: We will need to create the necessary sub-delegation authority]

Required Terms and Conditions of the Treasury Plan

(2) The Treasury Plan will establish the basis for OPG making funding decisions, which will need to align with the Fair Allocation Plan.

Power to Review and Approve the Treasury Plan

(3) The Minister may designate one or more persons to review, and require changes to the Treasury Plan. (This review could also be given to the Minister.) *[NTD-: Assumin no role for OEB – confirm. Any role for MOF/OFA here?]*

Obligation to Apply IESO Remittances,

(4) OPG will need to ensure that pass-through amounts, transferred to it as agent for the OPG Financing Entity, are only used to repay the debt and related costs.

Non-Recourse,

(5) The Treasury Plan will provide that the investors and other contracting parties will not have recourse to the IESO, LDCs, agents, the OEB or the Province, except where such parties fail to comply with applicable law. This may be modified in the contracts under which a financing arises.

> **NOTE: The documentation creating the Funding Obligations must expressly state that such obligations are not guaranteed by the Province.**
>
> **NOTE: See IESO/Stikeman's language for "Regulatory Asset" above.**

Incurrences are Binding,

(6) A failure to implement the Treasury Plan will not impair the pass-through of the deferral amounts or the validity of an otherwise valid funding obligation.

- **NOTE: Separate from the legislative provisions, we will also be preparing a very rough sketch of some of the items that might be included in the Treasury Plan direction.**
- **The sketch will be for illustration purposes only and will be for use in discussions with stakeholders including OPG and IESO.**

Crown bound, actions prohibited,

A.3 (1) No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections – *[NTD: alternative* - Crown bound, prohibition against discriminatory action.

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(2) The Province will be prohibited from taking or permitting any action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or collections.

Undertaking and Agreement

(3) Under this Undertaking, the Province will agree for the benefit the OPG Financing Entity that it will not impair the value of the Regulatory Asset or the Transition Charges imposed under this Part. This "pledge" is in line with market expectations. Enforcement issues arise in this sort of undertaking, which will be assessed by the market and rating agencies based on the likelihood that a failure by the Province would lead to a successful damages claim. Unlike in the U.S., the law regarding such a claim is uncertain. Nevertheless, we expect that this sort of Undertaking will be requested in the legislation itself (i.e., requiring an act of the legislature to disavow – which is a higher bar than simply walking away from a contractual undertaking.

[Note: TBD where to place this Part within the Act and how to structure this Part. Temporary number (e.g. A1, A2, A3 etc.) has been used for now.]

FINANCING ENTITY

Financing Entity, established or prescribed

A1. (1) For the purpose of accomplishing the hydro financing initiative, the Minister may,

(a) direct Ontario Power Generation Inc. to establish and operate a trust; or

(b) direct Ontario Power Generation Inc. to [oversee? Administer?] an entity prescribed by the regulations.

[Note: Would the direction of the Minister include any additional instructions re timing etc.?]

Duty of Ontario Power Generation Inc.

(2) Ontario Power Generation Inc. shall comply with the direction of the Minister.

[Note: Once OPG takes action under A1 in accordance with the Minister's direction, what happens if at some point in the future, the Minister wants a different entity to take over the role of the FE? Is this a concern that needs to be addressed?]

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Object of Financing Entity

A2. (1) The object of the Financing Entity is to finance the amounts required to accomplish the hydro financing initiative.

[Note: We are imposing several obligations on the Financing Entity (FE). As a practical matter, how will these obligations be enforced? Who will be responsible for meeting these obligations? (e.g. would there be directors or officers of the trust?). Or will the OPG be responsible for meeting these obligations as the body that establishes/manages the trust or oversees the designated entity?]

Activities

(2) To achieve the object, the Financing Entity shall engage in the following activities:

[Note: Just want to confirm that this should be "shall" and not "may".]

1. Borrowing funds from the Financial Corporation or from such other persons or entities [as may be prescribed?].

2. Investing funds.

3. Making payments and loans to the IESO or such other entity as may be prescribed in accordance with the regulations [or an order of the Board].

[Note: I think it would be best to specify whether the rules would be set out in a reg or in a Board order to avoid confusion.]

[Note: Should the "loans" language be removed, since you noted that the IESO is not "borrowing" from the FE?]

4. Receiving payments from the IESO or such other person or entity as may be prescribed in accordance with the regulations.

5. Issuing securities or debt ***[in the manner prescribed?].***

6. Engaging in any activities, including entering into such transactions, agreements or arrangements as may be prescribed and in accordance with the regulations.

Board review of expenditures, etc.

A3. (1) The Financing Entity shall, at least 60 days after the end of each fiscal year, submit its expenditures relating to its operations for the fiscal year including the expenses it has charged to Ontario Power Generation Inc. or the IESO, or that it has been charged by the Financial Corporation, in relation to those operations, to the Board for review.

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[Note: The list of items that have to be reported on could be more prescriptive (e.g. specifying specific amounts to be set out) or it could also allow for the Board to specify what it wants to see in the report. Let me know if you'd like to adjust the wording of the requirement.]

Board recommendations, etc.

(2) The Board may review the expenditures and charges referred to in subsection (1) and make recommendations to the Financing Entity as are appropriate in order to ensure the most efficient operation and management of the Financing Entity in order to protect consumers.

[Note: Rather than saying "in order to protect consumers", should this say "in order to achieve the object of the FE"? Or perhaps this could just be deleted altogether with no need for replacement language.]

Deemed assets, entity,

A4. Despite any other provision of this Act or the *Business Corporations Act*, the assets and liabilities which are resident in and form part of the property of the Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries for any purpose.

[Note: You posed a question about excluding an OPG subsidiary from this rule. Please instruct.]

OBTAINING FINANCING

[Note: It will be important to read all of the provisions that follow against the provisions in the existing Act, to ensure there is no overlap/confusion being created due to potential interactions between existing authority and new authority. The drafting focus so far has just been to get the relevant substantive provisions into the draft without evaluating how they fit into the broader scheme of the Act.]

Ontario Power Generation Inc. to obtain financing

A5. (1) The IESO may direct Ontario Power Generation Inc. to cause the Financing Entity to engage in any of the following activities in order to accomplish the hydro financing initiative:

[Note: As a practical matter, how would OPG "cause the FE" to do these things? How is this different from "directing"?]

1. Financing, borrowing or lending to provide the IESO with short-term or long-term financing.

2. [Purchasing/receiving/obtaining the right created under section XX] and making any payments to the IESO that relate to the IESO's activities in support of the hydro financing initiative.

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[Note: Not sure if the regulated assets would always be "purchased" or if other terminology might be needed. Please advise.]

3. Collecting from the IESO amounts that the IESO is required to pay in relation to its activities in support of the hydro financing initiative.

4. Assigning its [the IESO's?] rights to all or part of the regulatory assets established under section XXXX.

[Note: What is para. 4 about? If this is about forcing OPG to make the FE do things, then does this belong in the list? I thought that it was only the IESO that would be assigning the rights to the FE]

5. Such other activities as may be prescribed.

Same

(2) Ontario Power Generation Inc. shall comply with a direction under subsection (1) within the time specified in the direction [and any prescribed rules?].

IESO to enter into transactions

A6. (1) The IESO shall, in order to support the achievement of the hydro financing initiative, enter into transactions with the Financing Entity or any other entity for such amounts as are necessary to support the hydro financing initiative.

[Note: My understanding is that the need for "or any other entity" stems from the need to allow for the IESO to obtain temporary financing in the immediate term, before it is able to access the FE. Do you want to narrow this so that the IESO is only authorized to do this before the FE is up and running? Or do you want to keep it available on an ongoing basis?]

Same

(2) In entering into transactions under subsection (1), the IESO shall comply with the regulations.

RIGHT OF RECOVERY [CREATION OF REGULATORY ASSET]

[Note re the following provisions:
I found a provision dealing with the concept of "regulatory asset" in Bill 210 from 2002 (see s. 79.13 of the OEBA). It deems certain things to be regulatory assets but does not say much more. On the phone, you noted that the term "regulatory asset" does not have any legal meaning on its own but is just an accounting term that has been used to describe the statutorily created right of recovery. However, you also said that there may be a need to use this term in order to convey the intended meaning from an accounting perspective.

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In order to ensure that the drafting captures the policy intent, please answer/address the following questions:

1. Should we be creating a statutory right of recovery or deeming certain amounts to be a regulatory asset? [NTD-LSB: Yes. The term "Regulatory Asset" has currency in commercial law (parliance) and since much of what we're doing is to support a securitization model, the term should remain for now. Further, the term "regulatory asset" was consistently referred to in the documents provided to ENERGY LSB by Blakes. Further, IESO/Stikemans offered up alternative language for the creation of a "regulatory asset" (as an intangible asset of sorts). You said you'd consult on whether the regulatory asset terminology is important to flag in the Bill.

2. You said you're not sure whether or not the Act will require the IESO to sell/assign the right. Please instruct. If it is optional for the IESO to sell/assign, then it seems that the right could in theory remain with the IESO (unless you are saying that the statute can just create the right of the FE to recover without any need for the right to be assigned/sold by the IESO… in which case please explain why we need to deal with the sale/assignment at all). Please clarify.

3. I'm assuming that if we are creating a right, then the right must be held by someone (e.g. the IESO) before it can be assigned/sold? So should the right be created in the Act for the IESO (e.g. the IESO has a right to recover the amounts from distributors and prescribed consumers) since the IESO would then sell/assign/transfer the right to the FE? The FE must also have the right to recover from the IESO itself, so that creates an extra complication.

4. Should there be some indication of when the right of recovery/regulatory assets will no longer continue to exist (e.g. once all of the amounts have been paid?). I notice that your instructions below about the debt indicate that the debt is no longer owing once the amounts are paid, but do we need to indicate that the regulatory asset also ceases to exist at that point?

Right of recovery created

A7. A right to recover the following amounts in full from the IESO, distributors and prescribed consumers is created.

1. The [deferred amount].

2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.

[Note: How will the Board be approving these costs? Is this related to the expenditure report submitted to the Board? That provision dealing with Board expenditures doesn't refer to any approval taking place… just a review and recommendations.]

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[Note: Need to mention expenditures?]

3. Other amounts as may be prescribed or as may be approved by the Board.

Note: Are you going to be saying anything about how the interest will be calculated?

Sale [and/or?] assignment of [right? Regulatory assets?]

A8. (1) The IESO [may? Shall?], in accordance with the regulations, sell [and/or?] convey to the Financing Entity the right to recovery created established under section A7 on such terms and conditions as are provided for by the Financing Entity.

[Note: Your instructions include the terms "sell", "assign" and "convey" -- which are correct?]

[Note: Your instructions suggested that something other than the "regulatory assets" may need to be assigned to the FE. Are you referring to the "warehousing" liabilities assumed by the IESO in the early days? What else would need to be assigned? Could these items be listed above in A7 or is there a reason why they need to be kept separate?]

Sale deemed final

(2) The sale and conveyance referred to in subsection (1) is deemed to be final for all purposes.

[Note: What is this intended to achieve? Is this based on precedent language that has been interpreted to have the desired effect?]

Debts

(3) For greater certainty, the [amounts to which the FE has a right of recovery] are debts owing by the IESO, distributors and prescribed consumers to the Financial Entity until the amounts have been fully paid and fully discharged.

[Note: Why is subs. (3) necessary? Isn't it inherent in the sale of the regulatory assets that the FE would have acquired the future right to collect these amounts? Perhaps it is unclear that the amount can be collected from not just the IESO but from others down the chain. But isn't that what the "right of recovery" section above is meant to cover?]

[Note: I haven't checked to see how other similar provisions dealing with debts are drafted. Not sure we need the "for greater certainty" and also not sure what the distinction is between "fully paid" and "fully discharged". This provision will need further consideration. You also noted that you may want to specify who determines when all obligations have been satisfied.]

IESO to recover amounts

A9. The IESO shall recover the amounts set out in section A7 from distributors and prescribed consumers, in accordance with […]:

Note: how are the requirements that would determine recovery for this subsection meant to interact with the GAM reg?

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[Note: The following two subsections are placeholders. You noted that *the provision is going to have to evolve to deal with consumers who exit the grid (disconnect) completely either because they leave the province or they decide to generate their own electricity and completely disconnect. You also want to be able to prescribe* methods of ensuring that the amounts required cannot be "by-passed". I'll need to understand what is meant by "by-passed".]

Distributors liable

(x) The IESO and distributors are entitled to compensation for any shortfall in relation to the amounts the IESO must pay to generators, the Financial Corporation or other persons including prescribed persons, under section 25.33 resulting from the IESO's activities under the hydro financing initiative.

Consumers liable

(X) Prescribed consumers are required to contribute towards the amount of any compensation referred to in subsection (4) in accordance with the amounts and methods prescribed by the regulations and such amounts shall not be by-passed.

USE OF FUNDS TO REDUCE ELECTRICITY BILLS

[Note: Depending on how things land with s. 25.33, this might be a place to explain how the transactions between the IESO and the FE translate into reduction in the electricity bills of RPP consumers. Regulations could specify how the IESO would ensure that the short-term rate reductions that flow from the FE amounts are only received by the targeted class of consumers and that this same class of consumers is the only class responsible for the repayment of FE funds in the long-term.]

ALTERNATIVE LANGUAGE – REGULATORY ASSET -- PROPOSED BY IESO (STIKEMANS)

Regulatory Asset Created

A7. (1) There is hereby created and conferred upon the IESO a "Regulatory Asset" consisting of the right to recover, in addition to the amounts otherwise recoverable, in accordance with the Regulations, the aggregate of the following amounts [from distributors and] prescribed consumers. **[Quare: do we regard the Regulatory Asset as a single asset in a variable amount or as different assets arising on each deferral]:**

1. The [deferred amount, including interest accrued thereon].
2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.
3. Other amounts as may be prescribed or as may be approved by the Board.

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(2) The Regulatory Asset created by (1), shall constitute, for all purposes, a property right, shall be transferable by the IESO in accordance with Section A8, and shall constitute an intangible in which a security interest can be created for purposes of the *Personal Property Security Act*.

Election to Transfer Regulatory Asset

A8. (1) The IESO shall, from time to time, in accordance with the Regulations, elect to transfer to the Financing Entity all or any portion of the Regulatory Asset, on such terms and conditions as IESO may determine.

(2) Upon any election by the IESO pursuant to (1), the Financing Entity shall pay to the IESO in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, an amount, not less than the Deferred Amount, determined in accordance with the Regulations.

(3) Upon any election by the IESO pursuant to (1), the Financing Entity shall become the person entitled to the benefit of the Regulatory Asset, or the portion thereof in respect of which the election was made, free and clear of any adverse claim (other than any such claim created by the Financing Entity) and shall be entitled to exercise all of the rights and remedies conferred by or arising in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the IESO shall cease to have any rights (except as provided in Section A9) to or in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, all as if the Regulatory Asset, or the portion thereof in respect of which the election was made, had originally been conferred upon the Financing Entity and not the IESO.

(4) Upon any election by the IESO pursuant to (1), the IESO shall have no further rights or obligations in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the Regulatory Asset, or the portion thereof in respect of which the election was made, shall not form part of the assets and liabilities of IESO for any purpose.

(5) The LG in Council may adopt regulations providing for the circumstances in which IESO shall make the election or elections provided for in (1).

Financing Entity may Grant Security Interest

A9. (1) The Financing Entity may, at any time after an election referred to in Section A8(1), create a security interest in favour of any person in all or any portion of the Regulatory Asset subject to such election, all on such terms and conditions as the Financing Entity may determine.

(2) Except as provided for in Regulations adopted pursuant to (3), *The Personal Property Security Act* shall apply to any security interest created pursuant to (1), except that the rights of the secured party on default shall be limited to receiving the amounts collected in respect of the Regulatory Asset, or the portion thereof subject to the security interest, as and when collected by the IESO in accordance with A10.

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(3) The LG in Council may adopt regulations providing for the terms on which the security interest provided for in (1) can be created and perfected and for the priority of any such security interest.

IESO to Collect Amounts in Respect of the Regulatory Asset

A10. Subsequent to any election pursuant to Section A8, the IESO shall, as agent on behalf of the Financing Entity and any secured party, use reasonable efforts to collect the amounts owing in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and shall promptly pay over to the Financing Entity or the secured party the amounts collected.

--------*END OF IESO/BLAKES ALTERNATIVE LANGUAGE FOR REG. ASSET ---*

------- ***BLAKES VERSION OF LANGUAGE FOR REGULATORY ASSET***

The Regulatory Asset, Composition,

A7(1) The "regulatory asset" consists of the following:

- **present and future statutory obligation of:**
  - **deferral consumers - to make all deferral repayments (including interest and late payment fees)**
  - **LDCs - to invoice the deferral consumers for the deferral repayments and to remit the amounts collected to the IESO**
  - **IESO - to receive and remit the deferral repayments from LDCs to the OPG Financing Entity**
- **All deferral repayment amounts collected**
- **All amounts in LDC or IESO deferral payment bank accounts**

Validity of Dispositions

(2) This section is reinforcing by statute the "sale" of the asset to the Financing Entity. This has been an important feature of the legislation in other jurisdictions in similar circumstances. Specifically, it says that "Dispositions" of the Regulatory Asset are "true sales", and not subject to challenge. This is an essential requirement for a securitization transaction. This provision identifies possible grounds for a challenge that a sale took place and indicates that those events do not affect the validity of the sale.

Deemed Perfection and Priority of Dispositions

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(3) This is reinforcing the automatic nature of the "sale" of the asset. It Provides for a clean sale to the OPG Financing Entity, free and clear of encumbrances (i.e., no specific need to "perfect" the sale.

Validity of Pledges,
(4) Statutory override permitting the OPG Financing Entity to give a security interest in the "regulatory asset" to investors.

> **This would give the investors (through an indenture) the right to enforce collection of the deferral repayments to pay off amounts owed by the OPG Financing Entity to the investors upon certain defaults by the OPG Financing Entity under an indenture.**

Deemed Perfection and Priority of Pledges
(5) This is reinforcing that a commercial pledge given by OPG Financing Entity is valid and will have priority without specific "perfection". The result is that a pledge of the Regulatory Asset as security in accordance with the Treasury Plan will be given priority to other claims. The Pledge includes proceeds from the Regulatory Asset and is not affected by comingling or the ordinary requirement to file a financing statement under the PPSA.

Enforcement of Property Rights –

(6) The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5. *[ntd-: NOT an annotation – pulled directly from Blakes' document.]*

Collective Action Required –
(7) This anticipates that the Regulatory Asset will be structured as a variable interest that can be divided between IESO (until it sells) and one or more OPG Financing Entitys. The likely format will be a co-ownership agreement, that will allow for different owners to have a fractional undivided ownership interest in the Regulatory Asset. Those will entitle the owners to a specified share of the cash flows, which will correspond to their finance payment obligations. This will allow for future financing flexibility.

MISCELLANEOUS

Fair Hydro Financing Plan, miscellaneous,

A.8 (1) Consideration will be given to whether any additional 'miscellaneous' provisions are needed (and expected by the market) to support the financing of this

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structure. Some of these provisions are not typical in legislation, and so will need further consideration (in consultation with leg counsel).

Regulations

114(1.5) The LGIC may make regulations to implement the Fair Hydro Financing Initiative

-(a) The power to implement the program (and to set out some of the details of the program) through regulations is important. Decisions remain to be made (once the drafting is a little further advanced) about what provisions/details need to appear in the proposed legislation, and what provisions/details can be set out in regulations.

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ONTARIO ENERGY BOARD ACT, 1998

x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [hydro financing initiative].

[Note: Would need to link with definition in the EA or else spell out the definition here - TBD.]

x. Section 27.1 of the Act would be amended by adding the following paragraph:

Hearings

(1.1) A directive may specify whether the Board is to hold a hearing, the circumstances under which a hearing may or may not be held and, if a hearing is to be held, the type of hearing to be held and the time within which it must be held.

The underlined is what makes this different from the other provisions in the Act that basically have the same wording. There are already a number of places in the Act where you have this type of hearings provision re directives (e.g., s. 27.2 (7)). If you basically want the same authority in each instance, then the wording should be consistent in each case. There are already some discrepancies between the current provisions (e.g., s. 27.2

(7) talks about types of hearings, whereas s. 28 (2) doesn't). Differences in wording will typically be presumed to be differences in meaning. So, the question is what you're intending to authorize in each case, and whether differences are intended. If you want the same thing everywhere, it should all be worded the same. Let me know.

[Note: Waiting for confirmation whether amendments to s. 78.7 are needed. Please advise.]

x. Section 78 of the Act would be amended by adding the following subsection after subsection (3.0.5):

Rates, fair hydro financing initiative activities -IESO, OPG, distributors, etc.
(3.0.6) The OEB would not be precluded from taking into account the performance of duties under this Part by any entity regulated by the OEB, including fees received by such entity in excess of the incremental costs of the provision of such services.

x. Section 79.16 (3) of the Act would be repealed and the following substituted:

Adjustment to eliminate variances

(3) In determining rates under clause (1) (b), the Board shall take into account balances in variance accounts established under section 25.33 of the *Electricity Act, 1998* and, subject to section X of that Act, make adjustments with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct.
[Note: Please let me know what section the highlighted portion is supposed to refer to… is it the provision that says the IESO has the 30 year period to pay off the amount in the variance account for the hydro financing initiative? I wonder if this is confusing and whether the amendment to subs. (3) above works… it almost seems unnecessary to say that the Board has to "take into account" this balance, given that we are setting up a bunch of very specific rules about what has to be done by various entities in order to eliminate this amount. What would the Board be expected to do with information about this variance account? For consideration.]

PART VII.3

COMPLIANCE – FAIR HYDRO FINANCING INITIATIVE

Right of the [OEB] to Inspect Books and Records,
113 (1) OEB may be given the power to investigate compliance with the legislation and the power to examine books and records, etc.

Power to Investigate Compliance and Impose Regulatory Sanctions

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(2) This legislation will not limit the OEB's power to investigate compliance or prevent or preclude the OEB's power to impose sanctions. The OEB can investigate compliance with this part and to impose regulatory sanctions for non-compliance.

Limitation, Board,

(2.1) The OEB cannot, however, take any action to affect the irrevocability of the Transition Charges or the Undertaking of the Province.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

Confidential Draft

From:	John Kim
To:	Gavin He
Subject:	Fwd: OPG Equity Injection Summary
Date:	Thursday, March 16, 2017 4:51:29 PM
Attachments:	Ontario Fair Hydro Plan Equity Injection - Initial Discussion.docx ATT00001.htm

---

Would you mind basing your biweekly agenda in this? And send me?

Begin forwarded message:

> **From:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Date:** March 16, 2017 at 3:09:27 PM EDT
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>
> **Subject: RE: OPG Equity Injection Summary**
>
> Provided in note form.
>
> Kind regards,
>
> Adam Prokop
>
> ---
>
> **From:** Bruno Amara
> **Sent:** Thursday, March 16, 2017 2:16 PM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
> **Subject:** RE: OPG Equity Injection Summary
>
> Thanks Adam
>
> ---
>
> **From:** Adam Prokop
> **Sent:** Thursday, March 16, 2017 2:11 PM
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
> **Subject:** OPG Equity Injection Summary
>
> Hey Bruno,
>
> Just a quick recap of the meeting today.

OPG Comments

- <!--[if !supportLists]-->• <!--[endif]-->Suggesting that equity injection would take place after the legislation and trust structure in place.
- <!--[if !supportLists]-->• <!--[endif]-->First introduction to legislation in April.
- <!--[if !supportLists]-->• <!--[endif]-->May timeline for completion of all requirements, with a target of the reduction occurring on June or July bills.
- <!--[if !supportLists]-->• <!--[endif]-->Ministry of Energy is focusing on the legislation.
- <!--[if !supportLists]-->• <!--[endif]-->The OFA side will be working on the Provincial approvals for equity injection.
- <!--[if !supportLists]-->• <!--[endif]-->Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
- <!--[if !supportLists]-->• <!--[endif]-->Equity injection is meant to be as simple as possible – quarterly injections is being tabled with annual shareholder and board approval.
- <!--[if !supportLists]-->• <!--[endif]-->Would likely need a ten-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
- <!--[if !supportLists]-->• <!--[endif]-->Thus, seeking a type of “blanket approval” mechanism.
- <!--[if !supportLists]-->• <!--[endif]-->Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.
- <!--[if !supportLists]-->• <!--[endif]-->Special board meetings from OPG are likely to meet the May target.
- <!--[if !supportLists]-->• <!--[endif]-->Recognizes that the scheduled timeline is a moving target.

Discussion Questions

- <!--[if !supportLists]-->• <!--[endif]-->Is May a realistic timeline?
- <!--[if !supportLists]-->• <!--[endif]-->How will the approval process work with OPG and Province; will it be timed with other annual approvals?
- <!--[if !supportLists]-->• <!--[endif]-->The source of interim financing has not yet been determined.
- <!--[if !supportLists]-->• <!--[endif]-->OFA needs to open discussion with TBS to determine what approvals are needed and what process should be implemented.
- <!--[if !supportLists]-->• <!--[endif]-->There may be a conflict between the targeted irrevocability of the future revenues from ratepayers and the aspect of share redemption – a Provincial guarantee may be required.
- <!--[if !supportLists]-->• <!--[endif]-->OFA would act as support to TBS.
- <!--[if !supportLists]-->• <!--[endif]-->There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of

shares in the subscription.

<!--[if !supportLists]-->• <!--[endif]-->What funding does OPG have available now, and what could be used for interim financing for OPG Trust? (They have $700M line of credit for Darlington refurbishment and general corporate purposes, and $1B revolving bank credit facility, both which have been untapped as of Dec 31, 2016. Short term credit of $460M only has $74M in availability.)

Overall, the meeting was very high level. A placeholder meeting will be scheduled for next week.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

Ontario Fair Hydro Plan – Equity Injection Discussion

Purpose

On March 16, 2017, members from OEFC, OFA capital markets, Ministry of Finance, and OPG held a teleconference to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan (OFHP). These members are part of a working group established to facilitate the financing process for the OFHP.

Context

In early March 2017, the Province announced Ontario's Fair Hydro Plan (OFHP) aimed at reducing electricity bills by 25 percent on average for all residential consumers in the province. The Province has proposed refinancing a portion of the Global Adjustment costs over a longer time period for Regulated Price Plan eligible customers (e.g., residential, farm, small businesses). According to the Plan, the Province intends to introduce legislation that would, if passed, enable the IESO and OPG to work together to undertake this financing.

The legislation is intended to setup a special purpose vehicle, referred to herein as "OPG Trust", which would handle the deferral of the global adjustment as well as the eventual recovery of the deferred amount, along with financing and administration costs, from ratepayers. OPG Trust would be financed directly from the capital markets (51% of OPG Trust's capital structure) and 49% from loans from OPG. OPG would fund the majority of its loan to OPG Trust (44% of the capital structure) via an equity injection from the Province.

The teleconference call held on March 16, 2017, set out the initial discussion for the working group to set objectives, relay relevant information that the parties had gathered, and determine what information is required to move forward.

Teleconference Call

OPG Comments

- Suggested that the equity injection would take place after the legislation and trust structure in place.
- First introduction to legislation is planned for April.
- May timeline for completion of all requirements, with a target of the reduction occurring on June or July bills.
- Ministry of Energy is focusing on the legislation.
- The OFA side will be working on the Provincial approvals for the equity injection.
- Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
- Equity injection is meant to be as simple as possible – quarterly injections is being tabled with annual shareholder and board approval.
- Would likely need a ten-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
- Thus, seeking a type of "blanket approval" mechanism.

- Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.
- Special board meetings from OPG are likely to meet the May target.
- Recognizes that the scheduled timeline is a moving target.

Discussion Questions

- Is May a realistic timeline?
- How will the approval process work with OPG and Province; will it be timed with other annual approvals?
- The source of interim financing has not yet been determined.
- OFA needs to open discussion with TBS to determine what approvals are needed and what process should be implemented.
- There may be a conflict between the targeted irrevocability of the future revenues from ratepayers and the aspect of share redemption – a Provincial guarantee may be required.
- OFA would act as support to TBS.
- There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of shares in the subscription.
- What funding does OPG have available now, and what could be used for interim financing for OPG Trust? (Update – OPG has $700M line of credit for Darlington refurbishment and general corporate purposes, and $1B revolving bank credit facility which DBRS refers to as commercial paper, both which have been untapped as of Dec 31, 2016. Short term credit of $460M only has $74M in availability.)

The initial meeting was a general overview of the goals and requirements from the working group. A placeholder meeting will be scheduled for next week.

Prepared by:
Electricity Finance Branch
March 16, 2017

From:	John Kim
To:	Ronald Kwan
Cc:	Gavin He
Subject:	Fwd: Ontario Fair Hydro Plan
Date:	Friday, April 21, 2017 8:00:15 AM
Attachments:	Fair Hydro Plan Act (April 20 2017) Consultation v3.docx ATT00001.htm

---

FYI.

Begin forwarded message:

From: "Montgomery, Kaitlin (MOF)" <Kaitlin.Montgomery@ontario.ca>
Date: April 20, 2017 at 6:17:46 PM EDT
To: "Kim, John (OFA)" <John.Kim@ofina.on.ca>
Subject: Fw: Ontario Fair Hydro Plan

Hey John - here's the latest legislation

From: Kacaba, Jennifer (ENERGY)
Sent: April 20, 2017 5:59 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI)
Subject: RE: Ontario Fair Hydro Plan

All - Please find attached the next turn in the consultation draft (v.3) of the proposed legislation. We have been working to address the feedback that you provided earlier in the week. A number of points remain in progress. As with the earlier versions, by sharing this document, we hope to continue to advance our discussions.

Our timeline has been extended and we are now working to a pens down date of April 28th. We will not get another extension. Accordingly, we ask for your detailed, written comments on the draft, which we require no later than Sunday at noon.

We will continue to work on the bill in the interim, so earlier instructions are helpful to us. With your input on this timeline, we expect to be able to provide one more circulation around Tuesday or Wednesday next week.

We have not had the opportunity to add notes or to update our crosswalk to the Blakes summary document.

We look forward to receiving your written comments.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Kacaba, Jennifer (ENERGY)
Sent: April 17, 2017 12:00 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler - LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>);

Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: RE: Ontario Fair Hydro Plan

Please find attached a further turn of the consultation draft. This document continues to be a work in progress. We have not had the opportunity to add notes or update our tracking table. We also have not yet considered the comments that we received this morning. We look forward to seeing you at 1.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
Sent: April 15, 2017 10:06 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>);

John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>;
JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>;
Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>;
Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben'
(alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>);
Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>;
Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>;
Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>;
Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>;
'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary
(Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom,
Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>);
Akman, Steven
(Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>);
Thompson, Susan
(Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>);
Manii, David
(david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman,
Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie';
'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.';
michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy
(TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA
Jenny -FIN & C CTRL';
maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>;
Petsche, Nadine (TBS)
Cc: 'Myers, Jonathan'; Suzie Gignac
(suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill
(blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>);
LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan,
Ken (OFA); Hosick, Sarah (TBS)
Subject: Ontario Fair Hydro Plan

All - Please find attached the draft “Intergenerational Fairness in Hydro Rates Act, 2017”. A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.

For ease of reference, included with the draft bill are the partially updated Blakes’ summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.

In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday

Carolyn Calwell
Legal Director
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
416-212-8392

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Version 3

This confidential draft document is provided for discussion purposes only. It should not be construed as representing the position adopted by the Government of Ontario on any of the topics included or not included in this document. The notes included in this document are intended only to help facilitate a discussion of the topics to which they relate. Any potential legislation is subject to the approval of the Ontario Legislature.

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A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL
TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

[Notes re this draft:
- all numbering of provisions may need to be re-done
- will need to check all definitions to ensure (1) that they are needed; and (2) that they work properly wherever the term is used in the Bill.
- additional consequential amendments likely required still
- overall organization of provisions still TBC (for now just trying to get all of the elements drafted and will reconsider architecture later)
- need to check consistency of various phrases (e.g. *during/for/in respect of* reference period; *owner of RA/IA vs. RA/IA owner; etc.)*]

Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1]

The Government of Ontario has established a regulatory framework related to the generation and sale of electricity, which has promoted and continues to promote significant investment to enable phasing out of coal fired generation, modernizing sites and facilities in the Province for the generation of electrical energy and the production therefrom,[2] and conservation and demand management.

The Government of Ontario is committed to ensuring that the costs of these investments, and the raising of money to fund the investments,[3] are allocated fairly among present and future generations of consumers.

Therefore, Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

[1] Note: please see the preamble of the *Green Energy Act, 2009.*
[2] Note: please see clause 92A (4) (b) of the Constitution, 1867: "des emplacements et des installations de la province destinés à la production d'énergie électrique, ainsi que de cette production meme".
[3] Note: please see opening flush of s. 92A (4) of the Constitution Act, 1867

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")
[Note - will need to check throughout the draft that references to CEA are clear as to whether it's the total CEA in respect of a reference period vs. the portion payable by a specified consumer.]

"clean energy benefits" means, in respect of a reference period, the value of the benefits determined to be derived by the specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected future incurrences of clean energy costs; ("French")

"clean energy costs" means, in respect of a reference period, the value of the costs allocated to specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated costs to be incurred by the IESO under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management, including storage,

(iii) energy efficiency,

(iv) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(v) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

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(b) such other estimated costs as may be prescribed; ("French")

"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[4] means the IESO, a licensed distributor, a licensed retailer or such other person as may be prescribed; ("French")

"fair adjustment" means the determination of the rate payable for electricity in accordance with Part II; ("French")

"Financial Services Manager" means Ontario Power Generation Inc. [or such other person or entity as may be appointed as the Financial Services Manager by the Minister under section **]; ("French")

"Financing Plan" means the plan prepared under section X, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means a payment obligation incurred by or on behalf of the regulatory asset owner or an investment asset owner under section x; ("French")

"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means, in respect of a reference period, the amount determined under section 20xx for the reference period; ("French")

"investment asset" means the investment asset created as described in section 22xx; ("French")

"investment asset owner" means a financing entity that acquires an investment interest in the investment asset; ("French")

[4] Note - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"investment interest" means an ownership interest in the investment asset, which entitles an investment asset owner to the rights and benefits specified in the agreement under which the ownership interest is transferred;

"invoice amount" means the amount, determined in accordance with subsections (2.1) and (2.2) and the regulations, that is payable by a specified consumer for the provision of electricity in Ontario during a period of time specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

(a) the period beginning on May 1, 2017 and ending on October 31, 2017,

(b) every six-month period following the period mentioned in clause (a) or such shorter period as may be set out in the Fair Allocation Plan; ("French")

"refinancing" means a repayment or repurchase of a funding obligation for cancellation by or on behalf of an investment asset owner by applying the net proceeds obtained by the owner incurring one or more other funding obligations; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right established under section X to recover the IESO funding shortfall; ("French")

"representative consumer" means a consumer who meets the criteria set out in subsection (3); ("French")

"specified consumer" means,

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(a) a person who has an account with an electricity vendor for the supply of electricity, receives an invoice in respect of the account and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"Toronto Hydro" means Toronto Hydro-Electric System Limited; ("French")

"transfer" means an assignment, conveyance, disposition or sale; ("French")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

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Invoice amount

(2.1) Subject to subsection (2.2) and the regulations, the invoice amount for a specified consumer includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following:

    i. The commodity price of the electricity used during the invoice period.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

    iv. The amount of any harmonized sales tax payable [by the consumer?] under Part IX of the *Excise Tax Act* (Canada);

    v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO, such amounts as may be prescribed. ("French")

Same, exclusions

(2.2) Except as otherwise prescribed by the regulations, the invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

    i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

    ii. A charge labelled as a "specific service charge" or "retail service charge".

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iii. A rate rider.

5. Any other prescribed amounts.

Representative consumer

(3) For the purposes of the definition of "representative consumer" in subsection (1), the consumer,

(a) purchases electricity directly from Toronto Hydro;

(b) has an account with Toronto Hydro that falls within a residential-rate classification as specified in a rate order made by the Board under section 78 of the *Ontario Energy Board Act, 1998*;

(c) is invoiced by Toronto Hydro on a monthly basis;

(d) is not invoiced by Toronto Hydro for electricity on an equal monthly payment plan or an equal billing plan; and

(e) uses, on average, 750 kilowatt hours of electricity each month.

Transfer

(4) For greater certainty, a transfer of the regulatory asset or a portion of the regulatory asset includes any act of the IESO by which the IESO purports to dispose of its interest in the regulatory asset with the result of a named person becoming the owner of an investment interest.

Effect of invalidity, etc.[5]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if some provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect a funding obligation that was incurred under this Act before the day that the provision was held to be invalid or ceased to be in effect.

Purpose

3xx. (1) The purposes of this Act are,[6]

[5] Note: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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(a) to ensure that clean energy costs are fairly allocated among specified consumers over time and that the process by which the Province raises money to fund the costs reflects the fair allocation; and

(b) to recognize that clean energy benefits that have accrued and that will accrue over time will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the amount of the clean energy adjustment or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding financial commitments, financial arrangements, indemnities or similar transactions.

PART II
FAIR ADJUSTMENT

[6] Note: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Fair adjustment, May 1, 2017 to April 30, 2018
Definition

6xx. (1) In this section,

"average baseline invoice amount" means the average monthly invoice amount that would be payable by a representative consumer under the average baseline rate; ("French")

"average baseline rate" means the average rate that would be payable effective May 1, 2017 by the class of consumers prescribed by the regulations under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act, as determined by the Board by applying the method prescribed by the regulations under clause 79.16 (1) (b) of that Act; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

Rate determination

(2) Subject to subsection (3), [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] the rate for electricity payable by a specified consumer for the period beginning on May 1, 2017 and ending on April 30, 2018 is the average rate that would be payable by a representative consumer in order for the representative consumer to receive a monthly invoice amount that is 25 per cent less than the average baseline invoice amount.

Sub-meter customers

(3) A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the rate determined under subsection (2).

Determining rate

(4) The rate mentioned in subsection (2) shall be,

(a) determined by the Board within seven business days after this section receives Royal Assent; and

(b) effective as of the first day of the calendar month immediately following the determination.

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Transition

(5) If, for technical or operational reasons, an electricity vendor, specified consumer or unit sub-meter provider is unable to adapt its invoices to comply with this section by the time it issues its first invoice for electricity consumed on or after May 1, 2017,

(a) the electricity vendor, specified consumer or unit sub-meter provider shall adapt its invoices as soon as possible and, in any event, no later than [August 1, 2017]; and

(b) the electricity vendor, specified consumer or unit sub-meter provider shall ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Fair adjustment, May 1, 2018 to April 30, 2022

7xx. The Lieutenant Governor in Council may, [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] make regulations prescribing the rate for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay clean energy adjustment

8xx. (1) Upon receipt of an invoice that includes a clean energy adjustment, a specified consumer shall pay the clean energy adjustment to the electricity vendor, as agent of the investment asset owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment is inconsistent with the fair allocation calculation applicable at the time when the payment is due; and

(b) whether the clean energy adjustment relates to funding obligations that were incurred in a manner that was inconsistent with the Financing Plan.

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Indebtedness of specified consumer

(4) An unpaid clean energy adjustment that is required to be paid by a specified consumer under this section constitutes indebtedness of the consumer to each investment asset owner in respect of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer under the invoice or otherwise.

Irrevocability of clean energy adjustment

9xx. (1) The amount of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness created by the adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a calculation error by the electricity vendor.

Determination of clean energy adjustment

10xx. (1) The clean energy adjustment payable by all specified consumers in respect of a reference period shall be determined as follows:

1. Calculate the estimated finance amount for the reference period in accordance with Schedule 1 and such additional rules as may be prescribed.

2. Add the true up amount for the reference period, as determined in accordance with the prescribed method, to the estimated finance amount calculated under paragraph 1.

True up amount

(2) For the purposes of paragraph 2 of subsection (1), the Lieutenant Governor in Council may make regulations prescribing the method for determining the true up amount, having regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the estimated finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

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i. differences between amounts billed and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

ii. variations in billings due to variations in electricity consumption.

IESO to issue remittance notice to electricity vendors

11xx. (1) The IESO shall, in accordance with the regulations, issue a remittance notice to each electricity vendor for the electricity vendor's portion, as determined in accordance with the regulations, of the clean energy adjustment in respect of a reference period.

IESO to collect

(2) The IESO shall, as an agent of the investment asset owners, collect the clean energy adjustment from electricity vendors [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Collection account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of collecting those accounts:

1. Amounts described in subsection 12 (4).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8 (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (6), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment asset owners in accordance with the regulations.

Collection of outstanding amounts, regulatory asset

(6) If the total clean energy adjustment payable by specified consumers in respect of a reference period is less than the amount contemplated to be payable under the

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applicable fair allocation calculation made by the Financial Services Manager under Part IV, the IESO may collect the difference from specified consumers.

Electricity vendor to invoice specified consumers

12xx. (1) The electricity vendor shall issue an invoice to each specified consumer for the consumer's amount of the clean energy adjustment in accordance with the regulations.

Electricity vendor to collect

(2) Each electricity vendor shall, as an agent of the IESO and the investment asset owners, collect the clean energy adjustment from specified consumers [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges for the same invoice period.

Held in trust

(4) All of the following amounts received by an electricity vendor shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act:

1. Payments received from or on behalf of specified consumers under subsection 8 (1).

2. Portions of payments received from or on behalf of specified consumers under subsection 8 (1) that are allocated to the clean energy adjustment under subsection (3).

3. Any proceeds arising from the exercise and enforcement of any rights and interests under or in respect of the investment asset.

Remittance to IESO

(5) Each electricity vendor other than the IESO shall remit amounts described in subsection (5) to the IESO for the benefit of the investment asset owners or secured parties in accordance with the regulations.

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Regulations

(6) If an electricity vendor fails, in the manner described in the regulations, to comply with the requirements of this section, the electricity vendor shall take such steps as the regulations may prescribe.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) [Note: To be elaborated.]

Termination

(2) The Minister may by written order terminate the appointment of an appointee as the Financial Services Manager if,

(a) the Minister has advised the appointee that the Financing Plan is either inconsistent with or is being implemented in a manner that is inconsistent with the principles set out in section x;

(b) the appointee has been afforded a reasonable opportunity to consider and address the inconsistency; and

(c) the appointee is unwilling or unable to address the inconsistency to the satisfaction of the Minister.

Replacement

(3) Upon terminating an appointment, the Minister may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment asset owner.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section XX.

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2. Providing information to electricity vendors, including the IESO, in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate the fair allocation amount for the purposes of,

(a) fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of each reference period; and

(b) aligning funding obligations that may be incurred during each reference period with the allocation of the estimated clean energy costs and estimated clean energy benefits across present and future generations of specified consumers.

Amount

(1.1) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which the estimated [clean energy costs] [clean energy benefits] to be allocated to specified consumers in respect of the reference period exceeds the estimated amount of [the global adjustment] that would be borne by the specified consumers in respect of clean energy costs [in the absence of this Act].

2. An allocable portion of the value of any fair adjustment, determined in accordance with subsection (3).

Principles

(2) In calculating the fair allocation amount [or in developing the fair allocation calculation?], subject to subsection (3), the Financial Services Manager shall have regard to the following principles:

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1. Clean energy costs allocated to the specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits attributed to the specified consumers in respect of a reference period should be determined based on *[Insert principles]*.

3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers for each reference period.

    iii. The expected electricity consumption rates for each reference period.

Allocation of fair adjustment

(3) If, before the Financial Services Manager has calculated the fair allocation amount in respect of a reference period, a fair adjustment has been made under Part II in respect of the reference period, the calculation shall include a portion of the value of the fair adjustment in the fair allocation calculation for each future reference period.

Amendments to the fair allocation calculation

(4) The Financial Services Manager may amend the fair allocation calculation from time to time, as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Submission of fair allocation to Minister

(5) The Financial Services Manager shall provide to the Minister the fair allocation calculation and any amendments to the fair allocation calculation.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

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FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare and provide to the Minister a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred or potential transfers should be made for the purposes of this Act.

Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align the expected finance amount determined under Schedule 1 that would become due and payable during a reference period with the fair allocation amount determined for the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment for the reference period.

2. Incurrences and transfers should be implemented in a manner that, as the Financial Services Manager considers to be reasonable, is cost effective and reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

[Note for reference: List of items for consideration in regulation: (a) anticipated IESO funding shortfalls and related transfer amounts; (b) the maturities of funding obligations; (c) the availability of refinancings, redemption opportunities and liquidity terms and conditions in order to achieve the objective contemplated in section X(1)(a); (d) the availability of currency and interest rate hedging facilities for the purpose of mitigating any differences between the expected finance amounts becoming due and payable during a reference period and the fair allocation amount for the reference period; (d) the amount and potential variability of interest rates and related financing costs; (e) available capital markets in which funding obligations may be incurred.]

Amendments to approved plan

(3) The Financial Services Manager may amend the Financing Plan at any time, without the approval of the Minister, subject to the requirements set out in this section.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in a clean energy adjustment for the reference period unless,

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(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount for the reference period and the amount of the fair adjustment for the reference period].

Confidentiality of plan

(4) The Financing Plan is deemed to be a record subject to section 17 of the *Freedom of Information and Protection of Privacy Act.*

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations and make transfers in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, section [paramountcy of funding obligations] applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish one or more financing entities that may incur funding obligations and make transfers.

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Effect of amendment to Fair Allocation Plan

(4) No funding obligation incurred and no transfer made by the Financial Services Manager shall be affected by any inconsistency with the Financing Plan, including any inconsistency with the principles set out in section X.

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PART V
THE REGULATORY ASSET

Interpretation, portion of regulatory asset

18xx. If a transfer under this Part provides for the transfer of a portion of the regulatory asset, any references in this Part to the regulatory asset are deemed to be references to the portion of the regulatory asset transferred.

[Note: This is meant to assist with clarity in the subsequent provisions.]

Variance account

19xx. (1) The Board shall issue an accounting order to authorize the IESO to do the following:

1. Create a variance account for the purposes of this Act.

2. Record the IESO funding shortfall in the variance account from time to time.

3. Recover the IESO funding shortfall in accordance with section X and the regulations.

No hearing

(2) The order of the Board shall be made in writing and without holding a hearing.

No appeals, etc.

(3) No appeal lies from the order of the Board.

IESO funding shortfall

20xx. (1) The IESO shall determine the IESO funding shortfall for each month in the following manner:

1. Calculate the sum of all invoice amounts issued to specified consumers for the month if Part II of this Act did not apply.

2. Calculate the sum of all invoice amounts issued to specified consumers for the month.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1, and make any other adjustments as may be prescribed.

Same

(2) To the extent that the IESO funding shortfall for any month is based on an estimate of the electricity used by specified consumers, the IESO shall record an

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adjustment in the variance account in the following month to reflect the difference between the estimate and the electricity actually used by specified consumers.

Recording of IESO funding shortfall

(3) IESO shall record the IESO funding shortfall from time to time, including adjustments resulting from the exercise of the right of recovery under section 21 and any transfer under section 22, in the variance account.

Recording determinative

(4) A recording of the IESO funding shortfall in the variance account is determinative of the amount of IESO funding shortfall at the time of the recording.

Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the IESO funding shortfall.

Same, restrictions

(2) The IESO's right to recover the IESO funding shortfall under subsection (1) is subject to the following:

1. The IESO shall not be entitled to collect the IESO funding shortfall from specified consumers before May 1, 2022.

2. The process by which the IESO may recover the IESO funding shortfall shall be established by the Board, having regard to the amount of the IESO funding shortfall from time to time and the [fair allocation calculation].

3. Such other restrictions as may be prescribed.

Transfer of regulatory asset

22xx. (1) The IESO may transfer all or a portion of the regulatory asset to any financing entity under the Financing Plan, which transfer creates the investment asset.

Same

(2) Upon receipt of any payment in consideration for the transfer,

(a) the IESO shall record the payment as a reduction of the IESO funding shortfall in the variance account; and

(b) unless otherwise provided for in this Act, the IESO shall have no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

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Same

(3) Upon transfer, the financing entity becomes an investment asset owner and acquires an investment interest.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment asset owner of the regulatory asset, and the investment asset created by the transfer shall be immediately vested in the transferee.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Interpretation, investment asset

24xx. If a transfer under this Part provides for the transfer of an investment asset, any references in this Part to the investment interest are deemed to be references to the specific investment interest transferred.

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests without duplication:

1. The right to impose, bill, invoice, collect and receive the clean energy adjustment from specified consumers, including the right to determine the amount of the clean energy adjustment in accordance with this Act.

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2. The right to receive and collect all amounts in respect of the clean energy adjustment that are imposed, billed and invoiced under this Act, including any amounts that all amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge, bill and invoice the clean energy adjustment.

5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of the clean energy adjustment.

6. All rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise the regulatory asset owner's regulatory asset.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

No set off, etc.

(2) The investment asset shall not be set off or reduced by any person in any circumstance, including,

(a) by a consumer, an electricity vendor, an agent of the investment asset owner or an owner of distribution system assets in the Province;

(b) in connection with any default, bankruptcy, reorganization or other insolvency proceeding of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

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Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with section [xx] of the *Personal Property Security Act*.

Collective action required

(4) If the investment asset owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment asset owner collectively and in coordination with all other investment asset owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment asset owner as a collective in accordance with its terms. [Note: Successors may need to be addressed here.]

Transfer of investment interest

26xx. An investment asset owner may transfer all or a portion of its rights and interests in an investment interest to any other investment asset owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the owner of the investment interest acquired a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment asset owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment asset owner shall have priority over any liens in favour of such other persons.

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Investment asset owner may grant security interest

28xx. (1) An investment asset owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property, except as otherwise provided for in this section, and any granting of a security interest by the owner of an investment interest to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment asset owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any [investment asset account] or other account of any electricity vendor, the IESO, an agent of an electricity vendor or the IESO or other person who may have commingled such revenues or other proceeds with other funds.

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PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment asset owner or a secured party, order the sequestration and payment of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment asset owner or secured party by any person or entity authorized to collect the clean energy adjustment, defaults on any required remittance of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Same

(3) An order under subsection (1) shall remain in full force and effect despite any bankruptcy, reorganization or other insolvency proceedings with respect to the person or entity who is subject to the order.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

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No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required with respect to the actions to be taken in compliance with this Act, including actions to be taken under the Financing Plan or in relation to the establishment of the Fair Allocation Plan.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under this section unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[7]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations,

(a) defining any term used in this Act….

(b) prescribing types of payment obligations that constitute funding obligations;

(a) governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment.

(b) governing the inclusion of adjustments under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments.

[7] Note - see s. 51 of the Electricity Act, 1998

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[Note: reg-making powers to be dealt with in subsequent draft]

PART VII
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under that Act and engaging in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including the following:

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1. Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by the *Ontario Fair Hydro Plan Act, 2017* subject to the right of reimbursement from amounts available to the financing entity.

2. Preparing reports on behalf of the financing entity.

3. Enforcing the rights of the financing entity.

4. Signing offering documents as sponsor or otherwise on behalf of the financing entity.

5. Exercising the powers and performing the duties of the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*

6. Issuing non-equity securities in Ontario Power Generation Inc. or on if its subsidiaries, for the purpose of raising funds to acquire debt or equity interests in a financing entity whose activities are limited to the incurrence of funding obligations pursuant to the *Ontario Fair Hydro Plan Act, 2017*.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

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[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [TBD - language should link up with language from new Act.]

205x. Section 70 of the Act would be amended by adding the following subsection

[Note - still need to draft new subs. 70 (2.1)]

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

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SCHEDULE 1
ESTIMATED FINANCE AMOUNT

Estimated finance amount

1. The estimated finance amount for a reference period shall be determined by estimating, prior to the start of a reference period, the sum of the following:

1. The sum of all amounts that are payable during the reference period by or on behalf of the investment asset owners to satisfy an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase, of all or a portion of the amount advanced to the owners under a funding obligation, excluding any payment made by applying the proceeds of a refinancing.

2. The sum of all funding costs for the reference period, determined as follows:

    i. Calculate the aggregate of all interest, scheduled principal and other periodic finance charges accruing, due and becoming payable or paid by or on behalf of investment assets owners during the reference period in respect of all funding obligations, including such amounts as may be prescribed.

    ii. Calculate the sum of the aggregate of all amounts received by or on behalf of investment asset owners during the reference period in respect of all funding obligations and such other amounts as may be prescribed.

    iii. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

3. The sum of all amounts payable during the reference period by or on behalf of investment asset owners to redeem, prepay or repurchase a funding obligation, including any premium, make-whole or other amount becoming payable under a funding obligation to give effect to the redemption, prepayment or repurchase.

4. The balance of the finance reserve at the end of the reference period, as determined under section 3 to this Schedule.

5. The sum of any other amounts payable during the reference period by or on behalf of investment asset owners that were incurred or committed to directly or indirectly in connection with the incurrence of funding obligations under the Financing Plan during the reference period, which may include such amounts as may be prescribed.

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Funding costs

2. For the purposes of paragraph 2 of section 1 to this Schedule, the funding costs for a reference period are determined by taking the following steps:

Finance reserve balance

3. (1) For the purposes of paragraph 4 of section 1 to this Schedule, the balance of the finance reserve at the end of the reference period is determined by taking the following steps:

1. Calculate the sum of all amounts deposited by or on behalf of investment asset owners during the reference period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of funding obligations or for related contingencies specified in the Financing Plan.

2. Calculate the sum of all amounts withdrawn by or on behalf of investment asset owners during the reference period from deposits previously made as described in paragraph 1.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

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From:	John Kim
To:	Francisco Chinchon
Subject:	Fwd: Ontario Fair Hydro Plan
Date:	Friday, April 21, 2017 8:00:32 AM
Attachments:	Fair Hydro Plan Act (April 20 2017) Consultation v3.docx ATT00001.htm

---

Fyi

Begin forwarded message:

From: "Montgomery, Kaitlin (MOF)" <Kaitlin.Montgomery@ontario.ca>
Date: April 20, 2017 at 6:17:46 PM EDT
To: "Kim, John (OFA)" <John.Kim@ofina.on.ca>
Subject: Fw: Ontario Fair Hydro Plan

Hey John - here's the latest legislation

From: Kacaba, Jennifer (ENERGY)
Sent: April 20, 2017 5:59 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI)
Subject: RE: Ontario Fair Hydro Plan

All - Please find attached the next turn in the consultation draft (v.3) of the proposed legislation. We have been working to address the feedback that you provided earlier in the week. A number of points remain in progress. As with the earlier versions, by sharing this document, we hope to continue to advance our discussions.

Our timeline has been extended and we are now working to a pens down date of April

28th. We will not get another extension. Accordingly, we ask for your detailed, written comments on the draft, which we require no later than Sunday at noon.

We will continue to work on the bill in the interim, so earlier instructions are helpful to us. With your input on this timeline, we expect to be able to provide one more circulation around Tuesday or Wednesday next week.

We have not had the opportunity to add notes or to update our crosswalk to the Blakes summary document.

We look forward to receiving your written comments.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Kacaba, Jennifer (ENERGY)
Sent: April 17, 2017 12:00 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler - LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven

(Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: RE: Ontario Fair Hydro Plan

Please find attached a further turn of the consultation draft. This document continues to be a work in progress. We have not had the opportunity to add notes or update our tracking table. We also have not yet considered the comments that we received this morning. We look forward to seeing you at 1.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
Toronto
M7A 2E7
(416) 212-4867

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From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
Sent: April 15, 2017 10:06 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>;

JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
Cc: 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: Ontario Fair Hydro Plan

All - Please find attached the draft “Intergenerational Fairness in Hydro Rates Act, 2017”. A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.

For ease of reference, included with the draft bill are the partially updated Blakes’ summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.

In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday

Carolyn Calwell
Legal Director
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
416-212-8392

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Version 3

This confidential draft document is provided for discussion purposes only. It should not be construed as representing the position adopted by the Government of Ontario on any of the topics included or not included in this document. The notes included in this document are intended only to help facilitate a discussion of the topics to which they relate. Any potential legislation is subject to the approval of the Ontario Legislature.

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A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

A proposal to create Legislation.

Ontario's Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL
TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

[Notes re this draft:
- all numbering of provisions may need to be re-done
- will need to check all definitions to ensure (1) that they are needed; and (2) that they work properly wherever the term is used in the Bill.
- additional consequential amendments likely required still
- overall organization of provisions still TBC (for now just trying to get all of the elements drafted and will reconsider architecture later)
- need to check consistency of various phrases (e.g. *during/for/in respect of* reference period; *owner of RA/IA vs. RA/IA owner; etc.)*]

Preamble

The Government of Ontario is committed to fostering the development of a clean, modern and reliable electricity system with a diverse supply mix. The Government is also committed to removing barriers to and promoting opportunities for renewable and clean energy projects.[1]

The Government of Ontario has established a regulatory framework related to the generation and sale of electricity, which has promoted and continues to promote significant investment to enable phasing out of coal fired generation, modernizing sites and facilities in the Province for the generation of electrical energy and the production therefrom,[2] and conservation and demand management.

The Government of Ontario is committed to ensuring that the costs of these investments, and the raising of money to fund the investments,[3] are allocated fairly among present and future generations of consumers.

Therefore, Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

[1] Note: please see the preamble of the *Green Energy Act, 2009.*
[2] Note: please see clause 92A (4) (b) of the Constitution, 1867: "des emplacements et des installations de la province destinés à la production d'énergie électrique, ainsi que de cette production meme".
[3] Note: please see opening flush of s. 92A (4) of the Constitution Act, 1867

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PART I
GENERAL

Interpretation
Definitions

1xx. (1) In this Act,

"Board" means the Ontario Energy Board; ("French")

"clean energy adjustment" means the amount determined under section 10xx; ("French")
[Note - will need to check throughout the draft that references to CEA are clear as to whether it's the total CEA in respect of a reference period vs. the portion payable by a specified consumer.]

"clean energy benefits" means, in respect of a reference period, the value of the benefits determined to be derived by the specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected future incurrences of clean energy costs; ("French")

"clean energy costs" means, in respect of a reference period, the value of the costs allocated to specified consumers during the reference period as a result of the clean energy initiative, including as a result of past, present and expected costs incurred in respect of,

(a) the estimated costs to be incurred by the IESO under section 25.33 of the *Electricity Act, 1998* or any provision that is the successor to that provision, which relate to contracts for,

(i) renewable energy generation or capacity,

(ii) conservation and demand management, including storage,

(iii) energy efficiency,

(iv) natural gas generation and capacity, excluding contracts relating to amounts payable by the IESO under section 78.2 of the *Ontario Energy Board Act, 1998* and excluding such other contracts as may be prescribed, or

(v) payments made or expected to be made under section 78.5 of the *Ontario Energy Board Act, 1998*, and

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(b) such other estimated costs as may be prescribed; ("French")

"clean energy initiative" means the policies of the Government of Ontario related to,

(a) fostering the growth of and investment in clean and renewable energy sources and technologies,

(b) removing barriers to and promoting opportunities for clean and renewable energy sources and technologies, and

(c) promoting conservation and demand management; ("French")

"electricity vendor"[4] means the IESO, a licensed distributor, a licensed retailer or such other person as may be prescribed; ("French")

"fair adjustment" means the determination of the rate payable for electricity in accordance with Part II; ("French")

"Financial Services Manager" means Ontario Power Generation Inc. [or such other person or entity as may be appointed as the Financial Services Manager by the Minister under section **]; ("French")

"Financing Plan" means the plan prepared under section X, as amended from time to time in accordance with this Act; ("French")

"funding obligation" means a payment obligation incurred by or on behalf of the regulatory asset owner or an investment asset owner under section x; ("French")

"IESO" means the Independent Electricity System Operator continued under Part II of the *Electricity Act, 1998*; ("SIERE")

"IESO funding shortfall" means, in respect of a reference period, the amount determined under section 20xx for the reference period; ("French")

"investment asset" means the investment asset created as described in section 22xx; ("French")

"investment asset owner" means a financing entity that acquires an investment interest in the investment asset; ("French")

[4] Note - this is similar to the definition of "electricity vendor" in the Ontario Rebate for Electricity Consumers Act, 2016

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"investment interest" means an ownership interest in the investment asset, which entitles an investment asset owner to the rights and benefits specified in the agreement under which the ownership interest is transferred;

"invoice amount" means the amount, determined in accordance with subsections (2.1) and (2.2) and the regulations, that is payable by a specified consumer for the provision of electricity in Ontario during a period of time specified on an invoice issued by an electricity vendor; ("French")

"licensed distributor" means a person licensed under Part V of the *Ontario Energy Board Act, 1998* to own or operate a distribution system; ("French")

"licensed retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity; ("French")

"Minister" means the Minister of Energy or such other member of the Executive Council as may be assigned the administration of this Act under the *Executive Council Act*; ("ministre")

"prescribed" means prescribed by the regulations; ("prescrit")

"reference period" means,

(a) the period beginning on May 1, 2017 and ending on October 31, 2017,

(b) every six-month period following the period mentioned in clause (a) or such shorter period as may be set out in the Fair Allocation Plan; ("French")

"refinancing" means a repayment or repurchase of a funding obligation for cancellation by or on behalf of an investment asset owner by applying the net proceeds obtained by the owner incurring one or more other funding obligations; ("French")

"regulation" means a regulation made under this Act; ("règlement")

"regulatory asset" means the right established under section X to recover the IESO funding shortfall; ("French")

"representative consumer" means a consumer who meets the criteria set out in subsection (3); ("French")

"specified consumer" means,

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(a) a person who has an account with an electricity vendor for the supply of electricity, receives an invoice in respect of the account and meets the criteria set out in subsection (2); or

(b) such other person as may be prescribed; ("French")

"Toronto Hydro" means Toronto Hydro-Electric System Limited; ("French")

"transfer" means an assignment, conveyance, disposition or sale; ("French")

Specified consumers

(2) For the purposes of clause (a) of the definition of "specified consumer" in subsection (1), the person must meet any one of the following criteria:

1. The person has a demand for electricity of 50 kilowatts or less, or such other amount as may be prescribed.

2. The person annually uses not more than 250,000 kilowatt hours of electricity, or such other amount as may be prescribed.

3. The person carries on a business that is a farming business for the purposes of the *Farm Registration and Farm Organizations Funding Act, 1993* and either holds a valid registration number assigned under that Act or the has had the obligation to file a farming business registration form waived pursuant to an order made under subsection 22 (6) of that Act.

4. The person's account with the electricity vendor relates to,

    i. a dwelling,

    ii. a property within the meaning of the *Condominium Act, 1998*,

    iii. a residential complex within the meaning of subsection 2 (1) of the *Residential Tenancies Act, 2006*, without regard to section 5 of that Act, or

    iv. a property that includes one or more housing units and that is owned or leased by a co-operative within the meaning of the *Co-operative Corporations Act*.

5. The person satisfies such criteria as may be prescribed.

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Invoice amount

(2.1) Subject to subsection (2.2) and the regulations, the invoice amount for a specified consumer includes the following amounts:

1. In circumstances where the electricity is provided by a licensed distributor or a licensed retailer, the following:

    i. The commodity price of the electricity used during the invoice period.

    ii. The rates and charges set out in the applicable rate order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*.

    iii. Any adjustment on the invoice required under section 25.33 of the *Electricity Act, 1998*.

    iv. The amount of any harmonized sales tax payable [by the consumer?] under Part IX of the *Excise Tax Act* (Canada);

    v. Any other amounts as may be prescribed.

2. In circumstances where the electricity is provided by the IESO, such amounts as may be prescribed. ("French")

Same, exclusions

(2.2) Except as otherwise prescribed by the regulations, the invoice amount does not include any of the following amounts:

1. The balance of any amounts carried forward from previous invoices.

2. Penalties or interest.

3. Charges that do not relate to the use of electricity.

4. Any of the following charges that may be set out in an order issued by the Board under subsection 78 (3) of the *Ontario Energy Board Act, 1998*:

    i. A fixed monthly service charge payable by a generation facility within the meaning of section 56 of the *Ontario Energy Board Act, 1998* and classified as "microFIT".

    ii. A charge labelled as a "specific service charge" or "retail service charge".

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iii. A rate rider.

5. Any other prescribed amounts.

Representative consumer

(3) For the purposes of the definition of "representative consumer" in subsection (1), the consumer,

(a) purchases electricity directly from Toronto Hydro;

(b) has an account with Toronto Hydro that falls within a residential-rate classification as specified in a rate order made by the Board under section 78 of the *Ontario Energy Board Act, 1998*;

(c) is invoiced by Toronto Hydro on a monthly basis;

(d) is not invoiced by Toronto Hydro for electricity on an equal monthly payment plan or an equal billing plan; and

(e) uses, on average, 750 kilowatt hours of electricity each month.

Transfer

(4) For greater certainty, a transfer of the regulatory asset or a portion of the regulatory asset includes any act of the IESO by which the IESO purports to dispose of its interest in the regulatory asset with the result of a named person becoming the owner of an investment interest.

Effect of invalidity, etc.[5]

2xx. (1) For greater certainty, all of the provisions of this Act remain in full force and effect, even if some provisions are held to be invalid, the intention of the Legislature being to give separate and independent effect to the extent of its powers to every provision contained in this Act.

Same, funding obligation

(2) The fact that any provision of this Act is held to be invalid or ceases to be in effect for any reason does not affect a funding obligation that was incurred under this Act before the day that the provision was held to be invalid or ceased to be in effect.

Purpose

3xx. (1) The purposes of this Act are,[6]

[5] Note: this is from the *Climate Change Mitigation and Low-carbon Economy Act, 2016*

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(a) to ensure that clean energy costs are fairly allocated among specified consumers over time and that the process by which the Province raises money to fund the costs reflects the fair allocation; and

(b) to recognize that clean energy benefits that have accrued and that will accrue over time will continue to benefit present and future electricity consumers in the Province.

Crown bound

4xx. This Act binds the Crown.

Protection and assurances

Prohibition

5xx. (1) The Crown shall not do anything that would,

(a) hinder, delay, impair or prejudice the charging, collection or remittance of the clean energy adjustment;

(b) except as expressly permitted by this Act, reduce the amount of the clean energy adjustment or lower the priority of the clean energy adjustment over other debts; or

(c) adversely affect an investment asset or a funding obligation.

Clarification with respect to regulations

(2) For greater certainty, the things prohibited under subsection (1) include the making or approving of a regulation under this Act.

Agreements for compensation

(3) The Minister may, with the approval of the Lieutenant Governor in Council, enter into agreements on behalf of the Province of Ontario with any person in respect of this Act, including agreements regarding financial commitments, financial arrangements, indemnities or similar transactions.

PART II
FAIR ADJUSTMENT

[6] Note: Please see the *Electricity Act, 1998* for much of the wording proposed in this section.

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Fair adjustment, May 1, 2017 to April 30, 2018
Definition

6xx. (1) In this section,

"average baseline invoice amount" means the average monthly invoice amount that would be payable by a representative consumer under the average baseline rate; ("French")

"average baseline rate" means the average rate that would be payable effective May 1, 2017 by the class of consumers prescribed by the regulations under the *Ontario Energy Board Act, 1998* for the purposes of subsection 79.16 (1) of that Act, as determined by the Board by applying the method prescribed by the regulations under clause 79.16 (1) (b) of that Act; ("French")

"sub-meter customer" means a person who is supplied electricity by a specified consumer, if an invoice for the electricity is issued to the person by the specified consumer, by an agent of the specified consumer or by a unit sub-meter provider providing unit sub-metering for the specified consumer; ("French")

Rate determination

(2) Subject to subsection (3), [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] the rate for electricity payable by a specified consumer for the period beginning on May 1, 2017 and ending on April 30, 2018 is the average rate that would be payable by a representative consumer in order for the representative consumer to receive a monthly invoice amount that is 25 per cent less than the average baseline invoice amount.

Sub-meter customers

(3) A specified consumer who provides electricity to a sub-meter customer and any unit sub-meter provider who provides unit sub-metering for the specified consumer shall ensure that the rate payable by each sub-meter customer is the rate determined under subsection (2).

Determining rate

(4) The rate mentioned in subsection (2) shall be,

(a) determined by the Board within seven business days after this section receives Royal Assent; and

(b) effective as of the first day of the calendar month immediately following the determination.

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Transition

(5) If, for technical or operational reasons, an electricity vendor, specified consumer or unit sub-meter provider is unable to adapt its invoices to comply with this section by the time it issues its first invoice for electricity consumed on or after May 1, 2017,

(a) the electricity vendor, specified consumer or unit sub-meter provider shall adapt its invoices as soon as possible and, in any event, no later than [August 1, 2017]; and

(b) the electricity vendor, specified consumer or unit sub-meter provider shall ensure that any specified consumer or sub-meter customer invoiced at a rate higher than the applicable rate receives the difference between the rate shown on their invoice and the applicable rate as a lump sum credit on the first invoice issued after the invoices have been adapted or by such other means as may be prescribed by the regulations.

Fair adjustment, May 1, 2018 to April 30, 2022

7xx. The Lieutenant Governor in Council may, [to more fairly measure and allocate the clean energy costs and clean energy benefits among present and future generations of specified consumers,] make regulations prescribing the rate for electricity payable by specified consumers and sub-meter customers during the period beginning on May 1, 2018 and ending on April 30, 2022.

PART III
CLEAN ENERGY ADJUSTMENT

Specified consumers to pay clean energy adjustment

8xx. (1) Upon receipt of an invoice that includes a clean energy adjustment, a specified consumer shall pay the clean energy adjustment to the electricity vendor, as agent of the investment asset owners, in accordance with such terms of payment as may be specified in the invoice, which may include terms relating to late payment fees and interest charges.

Same

(2) For greater certainty, subsection (1) applies regardless of,

(a) whether the clean energy adjustment is inconsistent with the fair allocation calculation applicable at the time when the payment is due; and

(b) whether the clean energy adjustment relates to funding obligations that were incurred in a manner that was inconsistent with the Financing Plan.

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Indebtedness of specified consumer

(4) An unpaid clean energy adjustment that is required to be paid by a specified consumer under this section constitutes indebtedness of the consumer to each investment asset owner in respect of each owner's respective interest in the investment asset.

Same

(5) The indebtedness mentioned in subsection (4) is a single and separate debt obligation owed by the specified consumer and may be enforced independently from any other payment obligation or indebtedness owing by the specified consumer under the invoice or otherwise.

Irrevocability of clean energy adjustment

9xx. (1) The amount of the clean energy adjustment shown on an invoice issued to a specified consumer under this Act is determinative of the amount of the consumer's indebtedness created by the adjustment and is irrevocable upon invoicing the consumer and may not be set off or by passed.

Exception

(2) Subsection (1) does not apply to the extent that there is a calculation error by the electricity vendor.

Determination of clean energy adjustment

10xx. (1) The clean energy adjustment payable by all specified consumers in respect of a reference period shall be determined as follows:

1. Calculate the estimated finance amount for the reference period in accordance with Schedule 1 and such additional rules as may be prescribed.

2. Add the true up amount for the reference period, as determined in accordance with the prescribed method, to the estimated finance amount calculated under paragraph 1.

True up amount

(2) For the purposes of paragraph 2 of subsection (1), the Lieutenant Governor in Council may make regulations prescribing the method for determining the true up amount, having regard to the following principles:

1. The true up amount should serve to ensure that the collection of the clean energy adjustment is sufficient to pay the estimated finance amount when it is due.

2. The method for determining the true up amount should take into account historical and reasonably foreseeable,

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i. differences between amounts billed and amounts collected due to various factors, including applicable taxes, consumer defaults and delays, billing lags and write-offs, and

ii. variations in billings due to variations in electricity consumption.

IESO to issue remittance notice to electricity vendors

11xx. (1) The IESO shall, in accordance with the regulations, issue a remittance notice to each electricity vendor for the electricity vendor's portion, as determined in accordance with the regulations, of the clean energy adjustment in respect of a reference period.

IESO to collect

(2) The IESO shall, as an agent of the investment asset owners, collect the clean energy adjustment from electricity vendors [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Collection account

(3) All of the following amounts received by the IESO shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be deposited promptly into an account established for the purposes of collecting those accounts:

1. Amounts described in subsection 12 (4).

2. Payments made by specified consumers directly to the IESO as electricity vendor under subsection 8 (1).

Same, held in trust

(4) All amounts received by the IESO in respect of the clean energy adjustment shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (6), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act.

IESO to remit

(5) The IESO shall remit amounts received by it in respect of the clean energy adjustment to or for the benefit of the investment asset owners in accordance with the regulations.

Collection of outstanding amounts, regulatory asset

(6) If the total clean energy adjustment payable by specified consumers in respect of a reference period is less than the amount contemplated to be payable under the

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applicable fair allocation calculation made by the Financial Services Manager under Part IV, the IESO may collect the difference from specified consumers.

Electricity vendor to invoice specified consumers

12xx. (1) The electricity vendor shall issue an invoice to each specified consumer for the consumer's amount of the clean energy adjustment in accordance with the regulations.

Electricity vendor to collect

(2) Each electricity vendor shall, as an agent of the IESO and the investment asset owners, collect the clean energy adjustment from specified consumers [in accordance with the monthly settlement process set out in the market rules made under section 32 of the *Electricity Act, 1998]*.

Pro rating of payments

(3) If an electricity vendor receives a payment made by or on behalf of a specified consumer in respect of amounts payable under one or more invoices and the amount paid is less than the total amount payable, the electricity vendor shall allocate the payment on a pro rata basis to the clean energy adjustment and other amounts payable under the relevant invoices in respect of electricity charges for the same invoice period.

Held in trust

(4) All of the following amounts received by an electricity vendor shall, until paid to or for the benefit of the investment asset owner in accordance with subsection (5), be held in trust for the investment asset owners or a secured party to whom a security interest in an investment interest is granted under this Act:

1. Payments received from or on behalf of specified consumers under subsection 8 (1).

2. Portions of payments received from or on behalf of specified consumers under subsection 8 (1) that are allocated to the clean energy adjustment under subsection (3).

3. Any proceeds arising from the exercise and enforcement of any rights and interests under or in respect of the investment asset.

Remittance to IESO

(5) Each electricity vendor other than the IESO shall remit amounts described in subsection (5) to the IESO for the benefit of the investment asset owners or secured parties in accordance with the regulations.

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Regulations

(6) If an electricity vendor fails, in the manner described in the regulations, to comply with the requirements of this section, the electricity vendor shall take such steps as the regulations may prescribe.

PART IV
IMPLEMENTATION

FINANCIAL SERVICES MANAGER

Appointment

13xx. (1) [Note: To be elaborated.]

Termination

(2) The Minister may by written order terminate the appointment of an appointee as the Financial Services Manager if,

(a) the Minister has advised the appointee that the Financing Plan is either inconsistent with or is being implemented in a manner that is inconsistent with the principles set out in section x;

(b) the appointee has been afforded a reasonable opportunity to consider and address the inconsistency; and

(c) the appointee is unwilling or unable to address the inconsistency to the satisfaction of the Minister.

Replacement

(3) Upon terminating an appointment, the Minister may, in accordance with the regulations, appoint a new person or entity as the Financial Services Manager.

Duties and powers

14xx. (1) The Financial Services Manager shall perform the duties assigned to it under this Act and may administer the investment asset on behalf of the investment asset owner.

Same

(2) The administration of the investment asset may include the following:

1. Providing information, in accordance with the regulations, to the Board in respect of funding obligations and the determination of the clean energy adjustment in accordance with section XX.

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2. Providing information to electricity vendors, including the IESO, in respect of obligations under Part III.

3. Such other matters as may be prescribed.

Review of costs

(3) The Board shall review the administrative costs of the Financial Services Manager in accordance with the regulations.

FAIR ALLOCATION AMOUNT

Financial Services Manager to calculate fair allocation amount

15xx. (1) The Financial Services Manager shall calculate the fair allocation amount for the purposes of,

(a) fairly measuring and allocating the estimated clean energy costs and estimated clean energy benefits among the specified consumers in respect of each reference period; and

(b) aligning funding obligations that may be incurred during each reference period with the allocation of the estimated clean energy costs and estimated clean energy benefits across present and future generations of specified consumers.

Amount

(1.1) The fair allocation amount in respect of a reference period is the sum of the following amounts:

1. The amount, if any, by which the estimated [clean energy costs] [clean energy benefits] to be allocated to specified consumers in respect of the reference period exceeds the estimated amount of [the global adjustment] that would be borne by the specified consumers in respect of clean energy costs [in the absence of this Act].

2. An allocable portion of the value of any fair adjustment, determined in accordance with subsection (3).

Principles

(2) In calculating the fair allocation amount [or in developing the fair allocation calculation?], subject to subsection (3), the Financial Services Manager shall have regard to the following principles:

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1. Clean energy costs allocated to the specified consumers in respect of a reference period should be allocated in proportion to the clean energy benefits attributed to the specified consumers in respect of the reference period.

2. The clean energy benefits attributed to the specified consumers in respect of a reference period should be determined based on *[Insert principles]*.

3. The fair allocation calculation should include reasonable assumptions regarding the following:

    i. The time value of money or the rate of inflation, for the purpose of equating nominal amounts over time.

    ii. The expected number of specified consumers for each reference period.

    iii. The expected electricity consumption rates for each reference period.

Allocation of fair adjustment

(3) If, before the Financial Services Manager has calculated the fair allocation amount in respect of a reference period, a fair adjustment has been made under Part II in respect of the reference period, the calculation shall include a portion of the value of the fair adjustment in the fair allocation calculation for each future reference period.

Amendments to the fair allocation calculation

(4) The Financial Services Manager may amend the fair allocation calculation from time to time, as the Financial Services Manager considers appropriate, having regard to the requirements of this Act.

Submission of fair allocation to Minister

(5) The Financial Services Manager shall provide to the Minister the fair allocation calculation and any amendments to the fair allocation calculation.

Effective date

(6) The fair allocation calculation or an amendment to the fair allocation calculation takes effect on the day that is 30 days after the fair allocation calculation or the amendment, as the case may be, is provided to the Minister in writing.

Publication

(7) The Minister shall ensure that the fair allocation calculation and any amendments to it are made available to the public in a manner that the Minister considers appropriate.

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FINANCING PLAN

Financial Services Manager to prepare Financing Plan

16xx. (1) The Financial Services Manager shall prepare and provide to the Minister a written plan entitled the Financing Plan to be used by the Financial Services Manager to evaluate whether potential funding obligations should be incurred or potential transfers should be made for the purposes of this Act.

Principles

(2) In preparing the Financing Plan, the Financial Services Manager shall have regard to the following principles:

1. Any incurrence of a funding obligation should reasonably align the expected finance amount determined under Schedule 1 that would become due and payable during a reference period with the fair allocation amount determined for the reference period under this Part as of the time of the incurrence, in each case after reducing the fair allocation calculation by the amount of any fair adjustment for the reference period.

2. Incurrences and transfers should be implemented in a manner that, as the Financial Services Manager considers to be reasonable, is cost effective and reflects prevailing market terms and conditions.

3. Reasonable assumptions should be made regarding such matters as may be prescribed.

[Note for reference: List of items for consideration in regulation: (a) anticipated IESO funding shortfalls and related transfer amounts; (b) the maturities of funding obligations; (c) the availability of refinancings, redemption opportunities and liquidity terms and conditions in order to achieve the objective contemplated in section X(1)(a); (d) the availability of currency and interest rate hedging facilities for the purpose of mitigating any differences between the expected finance amounts becoming due and payable during a reference period and the fair allocation amount for the reference period; (d) the amount and potential variability of interest rates and related financing costs; (e) available capital markets in which funding obligations may be incurred.]

Amendments to approved plan

(3) The Financial Services Manager may amend the Financing Plan at any time, without the approval of the Minister, subject to the requirements set out in this section.

Limitation, first five year period

(4) In respect of each reference period from May 1, 2017 to April 30, 2022, no funding obligation shall be incurred that would become payable during the reference period and result in a clean energy adjustment for the reference period unless,

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(a) no fair adjustment has been made under Part II in respect of the reference period; or

(b) if a fair adjustment has been made under Part II in respect of the reference period, the funding obligations incurred would not be payable during the reference period in an amount that exceeds the [difference between the fair allocation amount for the reference period and the amount of the fair adjustment for the reference period].

Confidentiality of plan

(4) The Financing Plan is deemed to be a record subject to section 17 of the *Freedom of Information and Protection of Privacy Act.*

Implementation of Financing Plan

17xx. (1) The Financial Services Manager shall incur funding obligations and make transfers in material conformity with the applicable Financing Plan.

Same

(2) For greater certainty, section [paramountcy of funding obligations] applies despite the failure of the Financial Services Manager to comply with subsection (1).

Financing entities

(3) In accordance with the Financing Plan, the Financial Services Manager may establish one or more financing entities that may incur funding obligations and make transfers.

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, the Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Effect of amendment to Fair Allocation Plan

(4) No funding obligation incurred and no transfer made by the Financial Services Manager shall be affected by any inconsistency with the Financing Plan, including any inconsistency with the principles set out in section X.

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PART V
THE REGULATORY ASSET

Interpretation, portion of regulatory asset

18xx. If a transfer under this Part provides for the transfer of a portion of the regulatory asset, any references in this Part to the regulatory asset are deemed to be references to the portion of the regulatory asset transferred.

[Note: This is meant to assist with clarity in the subsequent provisions.]

Variance account

19xx. (1) The Board shall issue an accounting order to authorize the IESO to do the following:

1. Create a variance account for the purposes of this Act.

2. Record the IESO funding shortfall in the variance account from time to time.

3. Recover the IESO funding shortfall in accordance with section X and the regulations.

No hearing

(2) The order of the Board shall be made in writing and without holding a hearing.

No appeals, etc.

(3) No appeal lies from the order of the Board.

IESO funding shortfall

20xx. (1) The IESO shall determine the IESO funding shortfall for each month in the following manner:

1. Calculate the sum of all invoice amounts issued to specified consumers for the month if Part II of this Act did not apply.

2. Calculate the sum of all invoice amounts issued to specified consumers for the month.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1, and make any other adjustments as may be prescribed.

Same

(2) To the extent that the IESO funding shortfall for any month is based on an estimate of the electricity used by specified consumers, the IESO shall record an

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adjustment in the variance account in the following month to reflect the difference between the estimate and the electricity actually used by specified consumers.

Recording of IESO funding shortfall

(3) IESO shall record the IESO funding shortfall from time to time, including adjustments resulting from the exercise of the right of recovery under section 21 and any transfer under section 22, in the variance account.

Recording determinative

(4) A recording of the IESO funding shortfall in the variance account is determinative of the amount of IESO funding shortfall at the time of the recording.

Regulatory asset established

21xx. (1) The IESO has the right, exercisable in accordance with this Act and the regulations, to recover the IESO funding shortfall.

Same, restrictions

(2) The IESO's right to recover the IESO funding shortfall under subsection (1) is subject to the following:

1. The IESO shall not be entitled to collect the IESO funding shortfall from specified consumers before May 1, 2022.

2. The process by which the IESO may recover the IESO funding shortfall shall be established by the Board, having regard to the amount of the IESO funding shortfall from time to time and the [fair allocation calculation].

3. Such other restrictions as may be prescribed.

Transfer of regulatory asset

22xx. (1) The IESO may transfer all or a portion of the regulatory asset to any financing entity under the Financing Plan, which transfer creates the investment asset.

Same

(2) Upon receipt of any payment in consideration for the transfer,

(a) the IESO shall record the payment as a reduction of the IESO funding shortfall in the variance account; and

(b) unless otherwise provided for in this Act, the IESO shall have no further right, title or interest in, or any obligations in respect of, the regulatory asset or in the investment asset created by the transfer.

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Same

(3) Upon transfer, the financing entity becomes an investment asset owner and acquires an investment interest.

Validity of transfer

23xx. (1) A transfer of a regulatory asset under this Act is a valid and enforceable sale and absolute transfer to the investment asset owner of the regulatory asset, and the investment asset created by the transfer shall be immediately vested in the transferee.

Same

(2) Without limiting subsection (1), any transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of IESO's right to recover the IESO funding shortfall, and not merely as a security interest, and upon the absolute transfer the transferor shall retain no right, title or interest in the regulatory asset, including all rights to recover the IESO funding shortfall.

Deemed perfection, etc.

(3) At the time a transfer of a regulatory asset is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the transferee shall have priority over any liens in favour of those persons.

PART VI
THE INVESTMENT ASSET

Interpretation, investment asset

24xx. If a transfer under this Part provides for the transfer of an investment asset, any references in this Part to the investment interest are deemed to be references to the specific investment interest transferred.

Investment asset established

25xx. (1) The investment asset constitutes a current and irrevocable property right and interest consisting, collectively, of the following rights and interests without duplication:

1. The right to impose, bill, invoice, collect and receive the clean energy adjustment from specified consumers, including the right to determine the amount of the clean energy adjustment in accordance with this Act.

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2. The right to receive and collect all amounts in respect of the clean energy adjustment that are imposed, billed and invoiced under this Act, including any amounts that all amounts in respect of the clean energy adjustment that are held by electricity vendors or other prescribed parties.

3. All rights and entitlements under such accounts as may be prescribed by regulation and all amounts on deposit in such accounts.

4. The right to enforce the duties and obligations under this Act of each electricity vendor to impose, attribute, charge, bill and invoice the clean energy adjustment.

5. The right to enforce the duties and obligations under this Act of each electricity vendor to collect, receive and remit amounts received by it in respect of the clean energy adjustment, including all collections and the proceeds of any enforcement action undertaken by an electricity vendor to recover payment of the clean energy adjustment.

6. All rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise the regulatory asset owner's regulatory asset.

7. All revenue, collections, claims, payments, money and proceeds of or derived from the rights described in paragraphs 1 to 6, regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

No set off, etc.

(2) The investment asset shall not be set off or reduced by any person in any circumstance, including,

(a) by a consumer, an electricity vendor, an agent of the investment asset owner or an owner of distribution system assets in the Province;

(b) in connection with any default, bankruptcy, reorganization or other insolvency proceeding of a person mentioned in clause (a); or

(c) by any affiliate or successor of a person mentioned in clause (a).

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Exercise of rights

(3) The rights of the investment asset owner to collect and enforce its rights and interests in, to and in respect of the investment asset against a specified consumer shall be exercised in accordance with section [xx] of the *Personal Property Security Act*.

Collective action required

(4) If the investment asset owner owns a right or interest in the investment asset that comprises less than the entire property right and interest constituted by the investment asset, the right or interest shall only be enforced by the investment asset owner collectively and in coordination with all other investment asset owners, and any agreement among that collective in furtherance of the collective action shall be valid and binding on the investment asset owner as a collective in accordance with its terms. [Note: Successors may need to be addressed here.]

Transfer of investment interest

26xx. An investment asset owner may transfer all or a portion of its rights and interests in an investment interest to any other investment asset owner, including by way of a transfer of a divided or an undivided interest, in accordance with the Financing Plan.

Validity of transfer

27xx. (1) A transfer of an investment interest under this Act is a valid and enforceable sale and absolute transfer of the investment interest and confers upon the owner of the investment interest acquired a valid property right and interest in, to and under the applicable investment interest in accordance with the terms of the transfer.

Same

(2) Without limiting subsection (1), a transfer that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as an absolute transfer of an investment asset owner's right, title and interest in, to and under an investment interest, and not merely as a security interest, and upon such absolute transfer the transferor shall retain no right, title or interest in the investment interest, subject to the transfer, including all rights to the investment interest arising after the transfer.

Deemed perfection, etc.

(3) At the time a transfer of an investment interest is made, the transfer shall be deemed to have been and shall be perfected, vested, valid and binding as against the transferor and all other persons who have claims of any kind against the transferor.

Priority of transfer, assignment, etc.

(4) Subsection (3) applies regardless of whether the persons who have claims have received notice of the transfer and the property rights and interests acquired by the investment asset owner shall have priority over any liens in favour of such other persons.

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Investment asset owner may grant security interest

28xx. (1) An investment asset owner may grant a security interest over all or a specified portion of its right, title and interest in, to and under the investment interest to or in favour of any person to secure a funding obligation.

Validity

(2) A security interest granted under this Act shall be valid and enforceable in accordance with its terms.

Perfection and priority of security interests

(3) All provisions of the *Personal Property Security Act* shall apply to the investment asset and each investment interest on the basis that it is intangible personal property, except as otherwise provided for in this section, and any granting of a security interest by the owner of an investment interest to secure a funding obligation shall, subject to the terms of the funding obligation, give rise to a security interest in respect of which that Act applies and may be perfected by filing a financing statement under that Act on that basis.

Proceeds

(4) All proceeds of an investment interest that are subject to the security interest and that are received by the applicable investment asset owner shall immediately be subject to the security interest and shall be perfected without any physical delivery of the proceeds, registration of any financing statement or any further act.

Perfection

(5) The security interest shall be a continuously perfected security interest and shall have priority over any other lien, created by operation of law or otherwise, that may subsequently attach to the property rights and interests in the investment interest subject to the security interest, subject to the written consent of the person to whom the security interest has been granted.

Same

(6) The person to whom the security interest has been granted shall have a perfected security interest in revenues or other proceeds that are deposited in any [investment asset account] or other account of any electricity vendor, the IESO, an agent of an electricity vendor or the IESO or other person who may have commingled such revenues or other proceeds with other funds.

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PART VI
MISCELLANEOUS

Appointment of agent, invoicing or collection

29xx. If a prescribed circumstance applies, the Lieutenant Governor in Council may by regulation appoint a person to carry out some or all of the obligations of an electricity vendor under this Act in the place of an electricity vendor with respect to invoicing or collection.

Not Crown agent

30xx. For greater certainty, no agent appointed under this Act is an agent of the Crown for any purpose, despite the *Crown Agency Act*.

Sequestration

31xx. (1) A court in the Province may, upon application by an investment asset owner or a secured party, order the sequestration and payment of the clean energy adjustment, collections and remittances, as applicable, for the benefit of the investment asset owner or secured party by any person or entity authorized to collect the clean energy adjustment, defaults on any required remittance of the clean energy adjustment, collections or remittances.

Same

(2) An order under subsection (1) does not limit any other remedies available to the applicant.

Same

(3) An order under subsection (1) shall remain in full force and effect despite any bankruptcy, reorganization or other insolvency proceedings with respect to the person or entity who is subject to the order.

Choice of law

32xx. The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the regulatory asset, the investment asset, the clean energy adjustment or the undertaking of the Crown under section x shall be the laws of the Province.

Conflict

33xx. The provisions of this Act and the regulations apply despite any provision of any other Act regarding the attachment, assignment or perfection, or the effect of perfection or priority of any transfer or security interest.

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No further approvals, etc.

34xx. Despite any requirement under any Act, no approvals, notices or authorizations other than those specified in this Act are required with respect to the actions to be taken in compliance with this Act, including actions to be taken under the Financing Plan or in relation to the establishment of the Fair Allocation Plan.

Immunity

35xx. (1) No action or other proceeding for damages shall be instituted against any employee of the Province, IESO, OPG or OEB for any act done in good faith in the execution or intended execution of any duty or authority under this Act or for any alleged neglect or default in the execution in good faith of any duty or authority under this Act.

Same

(2) Despite subsections 5 (2) and (4) of the *Proceedings Against the Crown Act*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject.

References in marketing materials and offering documents

36xx. No person shall include, in marketing materials or offering documents relating to the financing of funding obligations, references to any rights, obligations, guarantees or undertakings arising under this section unless the prescribed requirements, if any, are satisfied.

Non-application, Financial Administration Act, s. 28[7]

37xx. Section 28 of the *Financial Administration Act* does not apply with respect to any transaction or agreement or undertaking required, permitted, contemplated or authorized, directly or indirectly, under this Act.

Regulations

38xx. The Lieutenant Governor in Council may make regulations,

(a) defining any term used in this Act….

(b) prescribing types of payment obligations that constitute funding obligations;

(a) governing the calculation [true-up amount] and how the amount is to be applied to the clean energy adjustment.

(b) governing the inclusion of adjustments under this Act on invoices, which may include requiring notice to be provided by electricity vendors to specified persons regarding the adjustments.

[7] Note - see s. 51 of the Electricity Act, 1998

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[Note: reg-making powers to be dealt with in subsequent draft]

PART VII
AMENDMENTS TO OTHER ACTS

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the *Ontario Fair Hydro Plan Act, 2017* and to engage in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including,

(i) entering into agreements or arrangements with any person for the purposes of the *Ontario Fair Hydro Plan Act, 2017*;

(ii) engaging in activities related to making payments to and receiving payments as contemplated under the *Ontario Fair Hydro Plan Act, 2017* and to engage in related settlement activities;

(iii) engaging in activities related to the creation, transfer and administration of the regulatory asset created under the *Ontario Fair Hydro Plan Act, 2017*, which activities may include,

(iv) incurring liabilities in relation to the regulatory asset

(v) transferring the regulatory asset for consideration;

(vi) acting as a recovery agent under the *Ontario Fair Hydro Plan Act, 2017*;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

Same, *Ontario Fair Hydro Plan Act, 2017*

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include exercising the powers and rights and performing the duties and obligations assigned to it under that Act and engaging in activities to facilitate the implementation of the *Ontario Fair Hydro Plan Act, 2017*, including the following:

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1. Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by the *Ontario Fair Hydro Plan Act, 2017* subject to the right of reimbursement from amounts available to the financing entity.

2. Preparing reports on behalf of the financing entity.

3. Enforcing the rights of the financing entity.

4. Signing offering documents as sponsor or otherwise on behalf of the financing entity.

5. Exercising the powers and performing the duties of the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*

6. Issuing non-equity securities in Ontario Power Generation Inc. or on if its subsidiaries, for the purpose of raising funds to acquire debt or equity interests in a financing entity whose activities are limited to the incurrence of funding obligations pursuant to the *Ontario Fair Hydro Plan Act, 2017*.

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply in respect of amounts payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of its functions as the Financial Services Manager under the *Ontario Fair Hydro Plan Act, 2017*.

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[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

AMENDMENTS TO ONTARIO ENERGY BOARD ACT, 1998

204x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [TBD - language should link up with language from new Act.]

205x. Section 70 of the Act would be amended by adding the following subsection

[Note - still need to draft new subs. 70 (2.1)]

Short Title - this proposal for legislation would, if approved by the Legislature, have a short title to be determined by Government.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

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SCHEDULE 1
ESTIMATED FINANCE AMOUNT

Estimated finance amount

1. The estimated finance amount for a reference period shall be determined by estimating, prior to the start of a reference period, the sum of the following:

1. The sum of all amounts that are payable during the reference period by or on behalf of the investment asset owners to satisfy an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase, of all or a portion of the amount advanced to the owners under a funding obligation, excluding any payment made by applying the proceeds of a refinancing.

2. The sum of all funding costs for the reference period, determined as follows:

    i. Calculate the aggregate of all interest, scheduled principal and other periodic finance charges accruing, due and becoming payable or paid by or on behalf of investment assets owners during the reference period in respect of all funding obligations, including such amounts as may be prescribed.

    ii. Calculate the sum of the aggregate of all amounts received by or on behalf of investment asset owners during the reference period in respect of all funding obligations and such other amounts as may be prescribed.

    iii. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

3. The sum of all amounts payable during the reference period by or on behalf of investment asset owners to redeem, prepay or repurchase a funding obligation, including any premium, make-whole or other amount becoming payable under a funding obligation to give effect to the redemption, prepayment or repurchase.

4. The balance of the finance reserve at the end of the reference period, as determined under section 3 to this Schedule.

5. The sum of any other amounts payable during the reference period by or on behalf of investment asset owners that were incurred or committed to directly or indirectly in connection with the incurrence of funding obligations under the Financing Plan during the reference period, which may include such amounts as may be prescribed.

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Funding costs

2. For the purposes of paragraph 2 of section 1 to this Schedule, the funding costs for a reference period are determined by taking the following steps:

Finance reserve balance

3. (1) For the purposes of paragraph 4 of section 1 to this Schedule, the balance of the finance reserve at the end of the reference period is determined by taking the following steps:

1. Calculate the sum of all amounts deposited by or on behalf of investment asset owners during the reference period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of funding obligations or for related contingencies specified in the Financing Plan.

2. Calculate the sum of all amounts withdrawn by or on behalf of investment asset owners during the reference period from deposits previously made as described in paragraph 1.

3. Subtract the amount calculated under paragraph 2 from the amount calculated under paragraph 1.

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From:	Ronald Kwan
To:	John Kim
Cc:	Gavin He
Subject:	Fwd: Rate Mitigation Implementation Meeting - April 6, 2017
Date:	Wednesday, April 05, 2017 5:28:44 PM
Attachments:	Agenda_Weekly Rate Mitig Implmentation Group_Mar 6.docx ATT00001.htm Consolidated - OFHP Matrix - Week of April 3.docx ATT00002.htm FHP Policy Foundations 04 04 2017 v.3.docx ATT00003.htm

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Hi John,

FYI.

Ron

Begin forwarded message:

From: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Date: April 5, 2017 at 5:22:25 PM EDT
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 6, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Wednesday, April 5, 2017 5:09 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,

Please find attached material for tomorrow's meeting.
Keley

Keley Katona | Director of Operations
Deputy Minister’s Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca<mailto:Keley.Katona@Ontario.ca>
4th Floor, Hearst Block, 900 Bay Street

WEEKLY RATE MITIGATION IMPLEMENTATION GROUP
April 6, 2017

Agenda

1) GA Refinancing
    - Legislative Drafting (LSB)
    - OPG Update
    - IESO Update
    - OEB Update

2) Other OFHP Initiatives
    - Affordability Fund (CRED)
    - RRRP, OESP and FN (SNAP)
    - ICI (ESPD)

3) Bill Presentment (SNAP)

4) Update on Action Items / Policy Matrix

Notes:

Implementation of Ontario's Fair Hydro Plan
Week of April 3, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation • Defining mitigation and recovery mechanism; and • Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg. 95/05) • Shareholder Resolution (work with OPG to determine form) • Third Party Technical Report re Long Lived Assets (TBD) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to the market	• IESO Board meeting on April 11, 2017 (TBD) – ESP to present on OFHP • AG briefing on April 19, 2017 (TBD) • Provide comfort level to allow OEB to include in May 2017 RPP • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	• OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature. • Legislative walk-through and working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Tuesday to work through issues related to legislation • LSB / Blakes to brief OPCD on legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap • Blakes / LSB to work with MAG on a second constitutional law	

Item	Key Deliverables / Considerations	Timing / Next Steps
	opinion from Peter Hogg • TD being engaged through OFA to provide financial advice • ESP to make presentation on GA financing at upcoming IESO Board meeting <u>Considerations</u> • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs <u>Considerations</u> • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • SNAP/LSB working on LRC package for OESP enhancements • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • Board decision this week on removing OESP from bill as of May 1. • SNAP to work with TBS to ensure funds flow from fiscal plan as soon as legislation passes <u>Considerations</u> • OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts • Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to use OESP variance (approx. $100M) to reduce current OESP charge to zero and continue funding existing program until tax changes in place. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. <u>Considerations</u> • Legislative changes not required.	**April 7, 2017:** • Briefing for Advisory Committee members **April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) • ESP to consider implications of dropping below 500kw threshold due to investments in conservation <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' <u>Recent Action Items</u> • ESP to work with other ministries regarding other measures that can be considered for SMEs <u>Considerations</u> • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs <u>Considerations</u> • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information by March 24, 2017 • Ministry preparing responsive materials
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP	• Preliminary discussion on April 19, 2017 (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment	• Initial discussion on March 31, 2017

Policy and Legal Foundations for the Proposed Ontario Fair Hydro Plan Act
April 4, 2017

Creating the Regulatory Framework

- Principles will link the benefit of the "Green Generation Initiative" with the regulatory cost that future rate payers will pay
- Need to name and articulate "Green Generation Initiative"

Fair Allocation Plan

- Policy direction around intergenerational funding will be established by the Minister of Energy
- The Fair Allocation Plan has been determined for the 1st four years, as set out in the March 2nd announcement
- Should there be a process around the Fair Allocation Plan [or as necessary]?
- [Role for the OEB?]

Treasury Plan

- Created by OPG to implement the Fair Allocation Plan
- Will pass through actual costs and expenses of funding obligations incurred
- 3 components:
    - Treasury Plan must be compliant with principles and parameters of the Fair Allocation Plan;
    - The Plan must match maturities to allocations under the Fair Allocation Plan, as well as achieve funding efficiencies and cost management articulated in the Fair Allocation Plan; and
    - Implementation
- Should [Minister?] [OEB?] review [and approve?] the Treasury Plan? At what point in process?

Establishment of the Regulatory Asset

- Right to recover from rate payers, through collection by LDCs and IESO, the regulatory charge, late fees, interest established by legislation
- IESO may dispose of (by assignment, transfer, sale, etc.) its right, title and interest in the Regulatory Asset
- Legislation will create property rights and allow for security interests in the Regulatory Asset
- [Role of the OEB in establishing the Regulatory Asset?]
- Role of OPG in acquiring the asset?

Ensuring Collectability

- Clearly defined class of rate payers that receive and pay for the benefit
- Charges are irrevocable
- LDCs have duty to invoice rate payers for the charge
- IESO and LDCs have duty to collect charges as agent and pay remittances to IESO
- IESO has duty to pay remittances to the Regulatory Asset Owner
- Non-by-passability – subject rate payers who opt to go off grid to a penalty (prepayment)?
- True up mechanism to reconcile collections with incurrences
- Province shall not take steps to reduce, alter, impair or terminate the Regulatory Asset or collection

OEB Role

- [Inspect books and records?]

DRAFT

- [Approve administrative costs?]
- [Prudence review of financing costs?]
- [Consequences of OEB review?]
    - Ability to review
    - Ability to review and make recommendations (non-binding)
    - Review and approve or refer back for reconsideration (binding)

Provincial Guarantee

- Scope / Triggers / Consequences / Form

DRAFT

From:	Gavin He
To:	John Kim; Bruno Amara
Cc:	Ronald Kwan
Subject:	Fwd: Rate Mitigation Implementation Meeting - April 13, 2017
Date:	Thursday, April 13, 2017 7:14:23 PM
Attachments:	Action Items - April 13.docx ATT00001.htm

Hi John/Bruno,

FYI.

Regards,
Gavin He

Begin forwarded message:

From: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Date: April 13, 2017 at 19:08:06 EDT
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 13, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Thursday, April 13, 2017 6:35 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: RE: Rate Mitigation Implementation Meeting - April 13, 2017

Please find attached the action items from today's meeting.

From: Katona, Keley (ENERGY)
Sent: April-12-17 5:33 PM
To: Hume, Steen (ENERGY); Sermat-Harding, Kaili (ENERGY); Reid, Michael (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); Nelms, Scott (MOF); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire

Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Thompson, Scott (MOF); Angus, Helen (TBS); Davidson, Steven (CAB); 'Martine Band'; 'CROZZOLI Carlo - CBUSDEV&STRT'; Mayman, Gadi (OFA); LEE John -TREASURY
Cc: Imbrogno, Serge (ENERGY); Teliszewsky, Andrew (ENERGY); Whittington, Matt (ENERGY); Baker, Carys (ENERGY); MacIntyre, Kyle (TBS); McLean, David (MOF); Foster, Robert (CAB); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Bungaro-Yemec, Francesca (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 13, 2017

Good evening,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

Action Items – April 13, 2017

1) GA Refinancing
    - LSB / Blakes / OPG to ask dealers about whether a rate class can be named as the backstop in legislation instead of individual ratepayers
    - LSB to circulate legislation for review and comment over the weekend
    - OPG Board to meet on May 1 for approval (Committee meetings to occur in advance)
    - TB / MBC to meet at 9am on May 1
    - OEB working to finalize RPP rates and release by April 20
    - OPG to develop note on why we can't revisit the financing structure (51/49)
    - KPMG, E&Y opinions to be provided by May 1
    - Constitutional Law opinion to be provided at a later date
    - 'Navigant Report' tracking for a later date; Ministry and OPG to work together to ensure alignment with internal OPG report for their Board
    - Ministry to work with OFA / TD to support report back to TB / MBC on overall structure and financibility

2) OPG Letter
    - Ministry to turn around comments on letter for end of day April 13

3) Other Items
    - RRRP / OESP / FN Rate
        - Ministry to meet with COO on April 26 re: FN Rate implementation
        - Ministry to develop briefing note on why LDCs with RRRP continue to track to OEB for rate increases
    - ICI
        - CME / OCC outreach continues

4) Other: Ministry to develop deck on bill presentment with high level slides on legislation

From: John Kim
To: Angie Georgakakos; Francisco Chinchon
Subject: Fwd: Subcommittee - Equity Injection/OPG Share purchase
Date: Thursday, March 09, 2017 3:26:46 PM

Begin forwarded message:

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Date: March 9, 2017 at 1:58:41 PM EST
To: 'LEE John -TREASURY' <john.s.lee@opg.com>
Cc: 'GRECO Clara -LAWDIV' <clara.greco@opg.com>, John Kim <John.Kim@ofina.on.ca>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Oops, thanks John.

Ron

From: Ronald Kwan
Sent: March-09-17 13:51
To: 'LEE John -TREASURY' <john.s.lee@opg.com>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
Cc: CROZZOLI Carlo -CBUSDEV&STRT <carlo.crozzoli@opg.com>; GRECO Clara -LAWDIV <clara.greco@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; HAHN PARKER Janet -TREASURY <j.hahnparker@opg.com>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Hi John,

I'm cc'ing John Kim on this email chain, as he can be Clara Greco's contact on this from my team.

Thanks,
Ron

From: LEE John -TREASURY [mailto:john.s.lee@opg.com]
Sent: March-09-17 13:29
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
Cc: CROZZOLI Carlo -CBUSDEV&STRT <carlo.crozzoli@opg.com>; GRECO Clara -LAWDIV

<clara.greco@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; HAHN PARKER Janet -TREASURY <j.hahnparker@opg.com>
Subject: Subcommittee - Equity Injection/OPG Share purchase

Steen/Mike/Ron:

Further to our call, can you identify a member from your team who can work with OPG (Clara Greco) on this joint initiative to establish a process to facilitate the equity injection requirements necessary to support the GA deferral financing.

Thanks

John

THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan
Subject:	Fwd: Updated forecast for OREC
Date:	Wednesday, March 22, 2017 2:35:06 PM
Attachments:	QA - Revised Rebate Cost Post FHP - to DMO_ESPD ADM Approved_ESP_v0.1.docx ATT00001.htm

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FYI.

Begin forwarded message:

From: "Fung, Felix (TBS)" <Felix.Fung@ontario.ca>
Date: March 22, 2017 at 2:31:32 PM EDT
To: "Chochla, Megan (CAB)" <Megan.Chochla2@ontario.ca>, "Kim, John (OFA)" <John.Kim@ofina.on.ca>
Cc: "Strang, James (TBS)" <James.Strang@ontario.ca>, "Morgenstern, Madeleine (TBS)" <Madeleine.Morgenstern@ontario.ca>
Subject: FW: Updated forecast for OREC

Hi Megan and John,

We got a revised forecast from ENE on OREC and on the 2017-18 figure for the electricity support program. Please see attached.

Thanks,
Felix

From: Katona, Keley (ENERGY)
Sent: March-21-17 12:14 PM
To: Fung, Felix (TBS)
Cc: Morgenstern, Madeleine (TBS); An, Tai (ENERGY); Gounden, Pratima (ENERGY); Strang, James (TBS); Chatterjee, Jeet (ENERGY)
Subject: FW: Updated forecast for OREC

Hi Felix,
See attached in response to the below.
Keley

From: Fung, Felix (TBS) <Felix.Fung@ontario.ca>
Sent: Saturday, March 4, 2017 3:14 PM
To: Katona, Keley (ENERGY); An, Tai (ENERGY); Gounden, Pratima (ENERGY)
Cc: Morgenstern, Madeleine (TBS); Strang, James (TBS)
Subject: Updated forecast for OREC

Hi Keley,

We were on a teleconference with Karen and she mentioned there's a revised

forecast for OREC as a result of the approval of the electricity mitigation package from earlier this week. Do you have the updated forecast that you can share with us, to ensure we are tracking the right numbers as part of the planning process?

Thanks
Felix

Sent from my BlackBerry 10 smartphone on the Rogers network.

Q&A Response

Q. What is the revised cost forecast for the 8% rebate as result of the measures announced in Ontario's Fair Hydro Plan?

Key measures announced in Ontario's Fair Hydro Plan (OFHP) are expected to reduce the cost of the 8% rebate for the Province. The cost to the Province is expected to decrease as the total cost of electricity paid by eligible customers, upon which the rebate is based, will be reduced.

ENERGY has updated the cost forecast for the 8% rebate based upon the following:

- Independent Electricity System Operator updated its Ontario Planning Outlook (OPO) with respect to a typical bill for a residential consumer as outlined in the March 1, 2017 Cabinet Submission. This revised OPO price outlook is inclusive of all the recently announced measures including cancellation of LRP II and EFW and expansion of ICI.

- ENERGY's estimates of the reduction to a typical bill for a residential consumer as a result of the Global Adjustment (GA) refinancing and funding electricity support programs through provincial revenues as announced in the OFHP.

- ENERGY's estimates of the reduction in costs for consumers that benefit from electricity support programs as announced in the OFHP (i.e., expanded Rural or Remote Rate Protection, enhanced Ontario Electricity Support Program and the First Nations Delivery Rebate). For Fiscal Year 2017-2018 this includes a 50% adjustment to the cost given that implementation of the expanded programs is expected to be deferred to September 2017.

	2017-2018	**2018-2019**	**2019-2020**
ENERGY Estimate **(August 26, 2016)** ($ million)	1,006	1,004	944
ENERGY's Revised Cost Estimate **(September 8, 2016)** ($ million)	1,119	1,086	1,171
ENERGY Revised Estimate **(March 15, 2017)** ($ million)	939	882	882
Change: **March 15, 2017** vs **August 26, 2016**	-7%	-12%	-7%
Change: **March 15, 2017** vs **September 8, 2016**	-16%	-19%	-25%

NOTE: The above estimates are subject to variances as result of uncertainties in demand, natural gas prices and other factors. These uncertainties also impact the variance account for the Regulated Price Plan (RPP).

Estimate Assumptions:

	2017	2018	2019	2020
Annual Average Electricity Price, Pre-tax, after Mitigation Programs ($ per month)	127*	120	122	125

***Note:** Value adjusted from $117 to account for deferral of implementation to May 2017 (GA refinancing) and July 2017 (tax-basing electricity support programs).
Source: OPO February 2017 and ENERGY estimates / Cabinet Submission March 1, 2017

	2017-2018	2018-2019	2019-2020	2020-2021
Cost of Expanded Electricity Support Programs in OFHP ($m)	499**	753	829	892

****Note:** Value adjusted from $665 million to account for deferral of implementation to July 2017.
Source: ENERGY estimates / Cabinet Submission March 1, 2017

	Base year
Total volume eligible for rebate (TWh)	71
Residential sector total eligible for rebate (TWh)	42
Portion of residential sector on retail contract (%)	10
Retail Premium: Residential ($/kWh)	0.03
Multi-unit sector total eligible for rebate (TWh)	7
Portion of multi-unit sector on retail contract (%)	10
Retail Premium: multi-unit ($/kWh)	0.02
Commercial sector total eligible for rebate (TWh)	20
Portion of commercial sector on retail contract (%)	26
Retail Premium: Commercial ($/kWh)	0.02
Agricultural sector total eligible for rebate (TWh)	1.9
Residential demand growth (2016-2023)	-0.6%
Commercial demand growth (2016-2023)	0.3%

Source: OCEB database, 2016 OPO and ENERGY analysis

From:	Gavin He
To:	John Kim
Cc:	Ronald Kwan
Subject:	Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Monday, April 10, 2017 11:38:01 PM
Attachments:	TOR_2528-#23107566-v9-_Fair_Hydro_Act_.DOCX ATT00001.htm TOR_2528-#23107566-vpdf-_Fair_Hydro_Act_.PDF ATT00002.htm

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Hi John,

Please find attached the revised draft legislative summary for your review.

Please note that any comments are due by 2:00 p.m. tomorrow.

Regards,
Gavin He

Begin forwarded message:

> **From:** "ASHBOURNE, STEPHEN" <STEPHEN.ASHBOURNE@blakes.com>
> **To:** "Feldman, Michael" <mfeldman@torys.com>, "JACKSON, ADAM" <ADAM.JACKSON@blakes.com>, "Peter Hamilton (PHamilton@stikeman.com)" <PHamilton@stikeman.com>, "LEE John - TREASURY" <john.s.lee@opg.com>, "RYFA Ken -TREASURY" <ken.ryfa@opg.com>, "WONG Leslie -LAWDIV" <leslie.wong@opg.com>, "MCAULEY Tyler -LAWDIV" <tyler.mcauley@opg.com>, "WILSON, JUDY" <JUDY.WILSON@blakes.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "Hill, Krista" <khill@torys.com>, "Ramchandani, Rima" <rramchandani@torys.com>, "Keizer, Charles" <ckeizer@torys.com>, "Myers, Jonathan" <jmyers@torys.com>, "Emes, Aaron" <aemes@torys.com>, "Mansoori, Nina" <nmansoori@torys.com>, "Wortsman, Jerald" <jwortsman@torys.com>, "Bomhof, Scott" <sbomhof@torys.com>, "Estey, Bill" <bestey@torys.com>, "Watson, Gwen" <gwatson@torys.com>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Alan Hibben" <alan.hibben@rogers.com>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "O'Brian, Adam" <aobrian@hunton.com>, "Fitzpatrick, Michael F." <MFitzpatrick@hunton.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "VINER, JON" <JON.VINER@blakes.com>, "Brad.Purkis@tdsecurities.com" <Brad.Purkis@tdsecurities.com>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "ESmith@osler.com" <ESmith@osler.com>, "RSebastiano@osler.com" <RSebastiano@osler.com>, "Michael.Boll@ieso.ca" <Michael.Boll@ieso.ca>, "GZacher@stikeman.com" <GZacher@stikeman.com>, "aobrian@hunton.com" <aobrian@hunton.com>, "Tim Christie (ENERGY)" <Tim.Christie@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "Paul Johnson (ENERGY)" <Paul.Johnson3@ontario.ca>, "Dan Shear (ENERGY)"

<Dan.Shear@ontario.ca>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>, "Gavin He" <Gavin.He@ofina.on.ca>, "Veinot, Cindy (TBS)" <Cindy.Veinot@ontario.ca>, "Hosick, Sarah (TBS)" <Sarah.Hosick@ontario.ca>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "kim.marshall@ieso.ca" <kim.marshall@ieso.ca>, "'LEE John -TREASURY' (john.s.lee@opg.com)" <john.s.lee@opg.com>, "Hilary Cox (ENE)" <Hilary.Cox@ontario.ca>, "Hilloowala, Maharukh" <Maharukh.Hilloowala@tdsecurities.com>, "Wolff, Michael" <Michael.Wolff@tdsecurities.com>, "Holloway, Harold" <Harold.Holloway@tdsecurities.com>, "Akman, Steven" <Steven.Akman@tdsecurities.com>, "Manii, David" <david.manii@tdsecurities.com>, "Nevison, Gary" <Gary.Nevison@tdsecurities.com>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com[blakes.com] **| Twitter**[twitter.com] **| Unsubscribe**[blakes.com]

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Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act"

Article 1 – Purpose

The Province has and continues to encourage the construction and development of facilities for the long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer, feed in tariff and other similar programs (the "Green Generation Initiative"). The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative will be well in excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative equitably across present and future Retail Consumers (the "Fair Allocation Plan").

If the Fair Allocation Plan determines that the equitable allocation of the costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period should be reduced below the amount that currently would be charged based on the Green Costs

Adjustment, then the amount payable by such Retail Consumers and in turn available to IESO will, in the aggregate, be less than the amount payable by the IESO to the generators in respect of such period. In this case IESO will need to obtain funding from another source to cover such a shortfall. If a funding obligation is incurred by IESO to cover such a shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs incurred will become payable in one or more future periods. In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding amounts when they become due and payable, this Act imposes irrevocable and non-bypassable financial obligations on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts. The right and interest in and to collect such financial obligations will take the form of the Regulatory Asset contemplated in this Act, which will constitute property rights and interests. Interests in the Regulatory Asset may be sold and absolutely assigned by IESO to one or more financing entities, which in turn will finance their acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf such financing entities by a financial services agent under the Financing Plan contemplated in this Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations, to be borne by the future Retail Consumers of the period in which such payment obligations become due, with the benefits of the Green Generation Initiative allocated to such future Retail Consumers under the Fair Allocation Plan.

The purpose of this Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this Act:

> “Absolute Assignee” means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> “Actual” means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Financial Services Agent whose records shall be determinative for the purposes of this Act except to the extent of a manifest calculation error.
>
> “Additional Funding Charges” means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Financial Services Agent on behalf of, the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on the Absolute

Assignee or incurred by on behalf of the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

"Allocation Factor" means, in respect of a Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the Retail Consumer by the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to individual Retail Consumers of the applicable Retail Consumer Group based on its Allocation Factor.

"Collected Amount Adjustment" means, in respect of a True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the Financial Services

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[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those may be identified and caught by the True-Up.

[2] This allocation may be volumetric or some combination of a flat amount and a volumetric charge. Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3), including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by any of a Electricity Distributor (or in its stead, by an Alternative Servicer), by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any

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[3] This would pick up adjustments based on actual collection experience, changes in the retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

Retail Consumer Group, the estimated value (in current dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Act except to the extent of a manifest calculation error.

"Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition under the Financing Plan.[6]

"Financing Plan" means the written plan prepared by the Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 9 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred by an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (j) the cash flows arising from time to time or otherwise derived from an Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to its Funding Obligations, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other

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[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

"Generator" means a generator of electricity that is subject to the *Electricity Act, 1998*.

"Global Adjustment" has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" has the meaning given in Article 1.

"IESO" means the Independent Electricity System Operator created pursuant to Part II of the *Electricity Act, 1998*.

"IESO Available Amount" means, for a Reference Period, the lesser of (a) the amount (if any) by which (i) the Maximum Transition Charge Amount for the Reference Period, exceeds (ii) Period Finance Amount for the Reference Period, and (b) the IESO Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Investment Interest.

"Pledgee" means a person to whom an Absolute Assignee grants a Pledge.

"Program End Date" means •, [2047].

"Province" means the Province of Ontario.

"Redemption Amount" means the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the Measurement Date to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of the Absolute Assignee by applying the net proceeds obtained by the Absolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rights and interests described in Section 6(1), which collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which IESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent of) the IESO Retained Interest and (b) each Absolute Assignee, as owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively IESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7).

"Related Rights" means all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their

own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with the *Electricity Act, 1998*.

"Servicer" means IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Retail Consumer in respect of a Reference Period, (a) the Period Transition Charge, (b) multiplied by its Allocation Factor in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this Act to have been received upon the collection of a Transition Charge paid by or on behalf of a Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 11(2).

Article 3 – Transition Charges

(1) Retail Consumer Obligation to Pay a Transition Charge – Each Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Retail Consumers** – Until paid, a Transition Charge charged to a Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Retail Consumer to the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Retail Consumer under the Electricity Invoice or otherwise.[9]

(3) **No Set-Off or Reduction** – A Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 9(3)) are deemed to be irrevocable, final and effective without any further action, except to the extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

Article 4 – Invoicing of Transition Charges

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued

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[8] Determine if this is critical for rating and markets. Logistics under consideration.

[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consider if it is helpful to integrate the existing regulatory scheme for invoicing and collections (regarding RPP) in the legislation.

by the Electricity Distributor or if applicable by the Alternative Servicer to the Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services Agent on its behalf) shall provide the OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative, except to the extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the Allocation Factor for each Retail Consumer of the applicable Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Retail Consumer of the applicable Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a Retail Consumer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, except to the extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative

Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Servicer to ensure that Transition Charges are properly charged to Retail Consumers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts to collect amounts owing by Retail Consumers in respect of Transition Charges charged to such Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(3) **Electricity Distributor Remittances** – On each applicable Remittance Date, an Electricity Distributor shall remit all Transition Charge Collections received by it from Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

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[10] Mirror collection “standard of care” under applicable legislation.

[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Retail Consumers that pay their Electricity Invoices directly to IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall promptly segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(6) **IESO Remittances** – On each Settlement Date[13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **IESO Successor** – IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[14], then such person shall, if requested by the Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Retail Consumers as provided in this Act; (c) exercise all enforcement rights of the Absolute Assignees for the benefit of an Absolute Assignee; and (d) remit any Transition Charge Collections to the Absolute Assignees or Pledgees, as applicable, each in accordance with its Investment Interest.

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[12] Consider building this obligation into a deemed condition of licence for the IESO.

[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

[14] This is in anticipation of a possible future restructuring of the distribution system.

(10) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[15]

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity

[15] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Retail Consumer reduces its payment of Transition Charges, despite this language. Same for Electricity Distributor Remittances and IESO Remittances.

Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Absolute Assignees, each with respect to its Investment Interest, and the Pledgees as applicable.[16]

(14) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute a current and irrevocable property right and interest consisting, collectively, of the following rights and interests (without duplication):

a. the right of IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this Act;

c. the right to enforce the obligations and indebtedness of each Retail Consumer to pay the Transition Charges charged to the Retail Consumer from time to time in accordance with Article 3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the

[16] Consider adding or substituting this provision for a right to appoint a receiver.

Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Disposition that may arise by operation of any applicable law of the Province, a Disposition by IESO to an Absolute Assignee made under the Financing Plan, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof, and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and

the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Pledge that may arise by operation of any applicable law of the Province, a Pledge by an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected pursuant to the PPSA.[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may attach to the property rights and interests in the Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. All provisions of the PPSA shall apply to the Regulatory Asset on the basis that it is intangible personal property, except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

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[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

(8) **Collective Action Required** – If a Regulatory Asset Owner's rights and interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective and coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.

Article 7 – Establishment of the Fair Allocation Plan[18]

(1) Adoption of the Fair Allocation Plan – The Delegate may, [by written declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Act, except if amended, amended and restated or terminated by a further written declaration made by the Delegate in compliance with Section 7(4).

(2) Principles and Parameters – A Fair Allocation Plan shall seek to allocate Future Fair Share of Green Transition Benefits across present and future Retail Consumer Groups on a basis that the Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters:

1. Future Fair Share of Green Transition Benefits should be allocated over the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods for the purpose of identifying applicable Retail Consumer Groups and allocating Future Fair Share of Green Transition Benefits among them on a relative basis over time.

3. The share of Future Fair Share of Green Transition Benefits allocable to a particular Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the Retail Consumer Group over such Reference Period.

4. The share of Future Fair Share of Green Transition Benefits to be allocated to a Retail Consumer Group and any future Retail Consumer Group at a particular time should not exceed the Estimated Future Green Transition Benefits, measured in respect of the Reference Periods following such particular time and to the Program End Date.

5. No future Retail Consumer Group should be allocated an unreasonably disproportionate share of Estimated Future Green Transition Benefits. Except in exceptional circumstances or in the case of any reallocation of an Over-Assessed Amount as contemplated in 7, below, the Future Fair Share of Green Transition Benefits to be allocated under a Fair Allocation Plan to any future

18 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current procurement contracts and not invest in extending service lives to secure further procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*.

6. The time value of money should be reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) **Attribution Methodology** – The Fair Allocation Plan shall specify the Attribution Methodology for the purposes of allocating the Period Transition Charges across the Retail Consumers of a particular Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that is considered by the Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) **Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare, Implement and Amend the Financing Plan** – The Financial Services Agent shall be authorized to prepare, implement and amend the Financing Plan. If the Financial Services Agent is unwilling or unable to prepare and propose the adoption of the Financing Plan, the Delegate may by written declaration designate one or more other persons who shall be authorized to prepare, implement and amend the Financing Plan.

(2) **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions. The Financing Plan shall have regard to the principles and parameters set forth in Schedule 3 and such other conditions and requirements as may be specified in a written declaration of the Delegate or in accordance with the Regulation.

(3) **OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) Replacement of the Administrative Agent – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) Obligation to Apply IESO Remittances – The Financial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Absolute Assignees, or otherwise in respect of or as proceeds from an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.

(7) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) Incurrences are Binding – Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article 10 – Compliance Matters[19]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Act, the OEB shall have the right, jurisdiction, power and authority to examine the books and records of *[Insert names if any]*.

(2) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG

[19] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article 11 – Undertaking of the Lieutenant Governor in Council[21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly, including through the introduction of any bill or the passing of any legislation or regulation having such effect. The amount of Transition Charges determined under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council, including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the Absolute Assignees or any Pledgee from time to time;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

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[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

(4) **Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 11.[22]

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 12 – Regulations

Regulations may be made under this Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 13- Miscellaneous[23]

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[22] Requested by Torys. For discussion.

[23] OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Act shall be required with respect to the actions to be taken in compliance with this Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Act, if any provision of this Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Act that is taken by any person who is or may become obligated or have duties that arise under this Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Act are intended to be severable and that the Legislature would have enacted this Act even if any Article, Section, paragraph or subparagraph of this Act held to be unconstitutional or invalid had not been included in this Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles and Parameters for Establishing the Financing Plan

The following principles and parameters provide a guideline as to what a Financing Plan should address:

(1) in respect of each Reference Period, make reference to the allocations of Future Fair Share of Green Transition Benefits to each Reference Group contemplated by the Fair Allocation Plan;

(2) estimate IESO Funding Shortfalls for each Reference Period;

(3) consider alternative funding arrangements suitable to fund the estimated IESO Funding Shortfalls, including short term and/or long term Funding Obligations;

(9) consider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that payments made for a Reference Period reasonably correspond to the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) reflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Retail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology);

(6) incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations should not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Financial Services Agent shall cause the applicable Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Financial Services Agent will select counterparties under any transaction to be entered into by an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding Shortfalls from time to time on a basis that is consistent with the allocations of Future Fair Share of Green Transition Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Financial Services Agent and other agents and service providers to the Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) describe the requirements applicable to any special purchase entity that will purchase an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities; and

(16) the basis on which any Pledge may be given or effected.

CONFIDENTIAL AND PRIVILEGED

Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act" ~~– Part V.2~~

Article 1 – Purpose[1]

~~IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as~~The Province has and continues to encourage the construction and development of facilities for the ~~purpose of~~ long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer ~~and~~, feed in tariff and other similar programs (the "Green Generation Initiative"). ~~[The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers.~~ The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ~~ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).~~electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

~~Each month, the IESO determines the Global Adjustment payable by consumers for the consumption~~The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province~~. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts~~ under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity~~ for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from~~, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative~~, on the one hand, and the costs of~~ will be well in

[1] ~~Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.~~

[2] ~~Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.~~

excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative ~~borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect~~will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that ~~can be applied from time to time in order to~~ establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative ~~across present and future Ratepayers. A plan to allocate such costs and benefits~~ equitably across present and future ~~Ratepayers may be developed based on those principles and parameters (a~~Retail Consumers (the "Fair Allocation Plan").

If ~~a~~the Fair Allocation Plan determines that the equitable allocation of the ~~Global Adjustment to the Ratepayers~~costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period ~~in respect of the Power Contracts~~ should be reduced below the amount ~~otherwise determined,~~that currently would be charged based on the Green Costs Adjustment, then the amount payable by such ~~Ratepayers to Electricity Distributors in respect of such period,~~Retail Consumers and in turn ~~by the Electricity Distributors to the~~available to IESO~~, would~~ will, in the aggregate, be less than the amount payable by the IESO to the ~~Generators under the Power Contracts~~generators in respect of such period. ~~If the difference is greater than any net Power Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period,~~In this case IESO will need to obtain funding from another source~~, which could include funding from third party sources operating in public and private capital markets~~ to cover such a shortfall. If a funding obligation is incurred ~~in order to enable the~~by IESO to cover such a ~~funding~~ shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs ~~will be~~ incurred ~~and may~~will become payable in one or more ~~other~~future periods. ~~It will be necessary to provide~~In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding ~~obligations and to pay related funding costs with certainty when the funding obligations~~amounts when they become due and payable~~. This Part~~, this Act imposes irrevocable and non-bypassable financial obligations ~~of Ratepayers~~on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations~~, which~~ will take the form of the Regulatory Asset contemplated in this ~~Part and~~Act, which will constitute property rights and interests. ~~The~~Interests in the Regulatory Asset ~~will~~may be sold and absolutely assigned ~~and will belong~~by IESO to one or more~~ newly created~~ financing entities, which in turn will finance their ~~purchase of such Regulatory Asset~~acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf ~~the~~such financing entities by ~~an administrative~~a financial services agent~~ (initially OPG),~~ under the Financing Plan

~~[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]~~

contemplated in this ~~Part~~Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations ~~and~~, to be borne by the future ~~Ratepayers~~Retail Consumers of the period in which such payment obligations become due, with the ~~costs and~~ benefits of the Green Generation Initiative ~~charged~~allocated to such future ~~Ratepayers~~Retail Consumers under the Fair Allocation Plan.

The purpose of this ~~Part~~Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future ~~Ratepayers~~Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this ~~Part~~Act:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the ~~Administrative~~Financial Services Agent whose records shall be determinative for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by ~~the Regulatory Asset Owners~~or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the ~~Administrative~~Financial Services Agent on behalf of, ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on ~~a Regulatory Asset Owner~~the Absolute Assignee or incurred by on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the ~~Administrative~~Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager ~~of~~or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in

good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

~~"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the Financing Plan in compliance with the requirements set out in Schedule 2.~~

"Allocation Factor" means, in respect of a ~~Ratepayer~~Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the ~~Ratepayer~~Retail Consumer by ~~[IESO]~~the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[4][1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[5][2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to ~~the~~ individual ~~Ratepayers~~Retail Consumers of the applicable ~~Ratepayer~~Retail Consumer Group based on its Allocation Factor.

~~"Bypass Charge" means [To be developed].~~[6]

"Collected Amount Adjustment" means, in respect of a ~~Reference~~True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the ~~Administrative~~Financial Services Agent, as applicable, equal to (a) the Estimate of the

[4] ~~Consider basing~~[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those ~~would~~may be identified and ~~rolled into~~caught by the True-Up.

[5] ~~A key question will be how the overall costs will be spread across the rate base. For example, the~~[2] This allocation may be volumetric ~~or not,~~ or some combination of a flat amount and a volumetric charge. ~~This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion~~Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

[6] ~~Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.~~

Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.~~7~~[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of ~~all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset~~an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed ~~by the OEB~~under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by ~~an~~any of a Electricity Distributor (or in its stead, by an Alternative Servicer)~~ or~~, by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means~~,~~ (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the ~~Administrative Agent~~Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any Retail Consumer Group, the estimated value (in current

[3] This would pick up adjustments based on actual collection experience, changes in the ~~Consumer Base~~retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.

"~~Fair Allocation Plan" [has the meaning given in Article 1].~~Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, ~~in respect of~~for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts ~~for~~that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.~~"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.~~

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the

Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8] under the Financing Plan.[6]

"Financing Plan" means the written plan [prepared by the Administrative Agent]Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 89 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfallby an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (ij) the cash flows arising from time to time or otherwise derived from the Regulatory Assetan Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset OwnerAbsolute Assignee during the Reference Period in respect of allits Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to aits Funding ObligationObligations, exceeds (b) the aggregate of all Finance Receiptsamounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

[8] OPG has suggested[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other financing ~~charges, indebtedness,~~charge payments; pass-through payments; payment obligations arising under or in respect of derivatives~~,~~; payment obligations owing to service providers, ~~administrative agents~~Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all ~~taxes payable in connection with the foregoing)~~Additional Funding Charges incurred by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan ~~in order to fund a Funding Shortfall for a Reference Period~~, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.[9]

~~"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.~~[10]Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

~~"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.~~[11]

"Generator" means a generator of electricity that is subject to ~~[this~~the *Electricity Act*~~]~~[12]~~.~~, *1998*.

"Global Adjustment" ~~means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.~~[13]has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" ~~[~~has the meaning given in Article ~~1]~~.1.

~~[9] OPG has asked whether this should include IESO finance arrangements.~~

~~[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.~~

~~[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]~~

~~[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.~~

~~[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").~~

"IESO" means the Independent Electricity System Operator created pursuant to ~~[insert].~~Part II of the *Electricity Act, 1998*.

"IESO ~~Applied Surplus~~Available Amount" means, for a Reference Period, the lesser of (a) the amount~~,~~ (if any~~,~~) by which (i) the ~~IESO Power Contract Net Payment~~Maximum Transition Charge Amount for the Reference Period, exceeds (ii) ~~the GA Power Contract Contribution~~Period Finance Amount for the Reference Period, and (b) the IESO ~~Unapplied Surplus on the last day of the immediately preceding Reference Period.~~ Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO ~~Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.~~Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

~~"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period.~~

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO ~~Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].~~Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"~~IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net~~

~~Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.~~ Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period ~~Transition Charge~~Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by ~~a Regulatory Asset Owner~~the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the ~~Regulatory Asset~~Investment Interest.

"Pledgee" means a person to whom ~~a Regulatory Asset Owner~~an Absolute Assignee grants a Pledge.

"~~Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.~~[14]Program End Date" means •, [2047].

"Province" means the Province of Ontario.

~~"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.~~[15]

[14] ~~Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?~~

[15] ~~Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.~~

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owneran Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation ImplementationMeasurement Date] to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means that a, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of a Regulatory Asset Ownerthe Absolute Assignee by applying the net proceeds obtained by the Regulatory Asset OwnerAbsolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rightrights and interestinterests described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Documentwhich collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which the ServicerIESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent that it has retained any ownership interest in, to or under the Regulatory Assetof) the IESO Retained Interest and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Assetas owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively all of the Regulatory Asset OwnersIESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

~~"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.~~

"Related Rights" means~~, with respect to a Regulatory Asset Owner's Regulatory Asset,~~ all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in ~~relation to~~accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the ~~Regulatory Asset Owner~~Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by ~~a Regulatory Asset Owner~~an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with ~~[this~~the *Electricity Act*[17]~~]~~, *1998*.

"Servicer" means ~~[To be determined]~~IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset ~~Owner [To be determined – collective invoicing agent, and consider expanding].~~Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a ~~Ratepayer~~Retail Consumer in respect of a Reference Period, ~~the sum of~~ (a) ~~[one sixth] of~~ the Period Transition Charge, (b) multiplied by its Allocation Factor ~~and (b) any Bypass Charge charged to the Ratepayer~~ in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this ~~Part~~Act to have been received upon the collection of a Transition Charge paid by or on behalf of a ~~Ratepayer~~Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the ~~Administrative~~Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section ~~10~~11(2).

~~"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].~~[18]

Article 3 – Transition Charges

(1) **~~Ratepayer~~Retail Consumer Obligation to Pay a Transition Charge** – Each ~~Ratepayer~~Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

[17] ~~Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.~~
[18] ~~Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.~~

(2) **Indebtedness of ~~Ratepayers~~Retail Consumers** – Until paid, a Transition Charge charged to a ~~Ratepayer~~Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the ~~Ratepayer~~Retail Consumer to the Regulatory Asset Owners, ~~(~~each with respect to its respective interest in the Regulatory Asset~~)~~. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the ~~Ratepayer~~Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the ~~Ratepayer~~Retail Consumer under the Electricity Invoice or otherwise.~~[19]~~[9]

(3) **No Set-Off or Reduction** – A ~~Ratepayer~~Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of ~~Ratepayer~~Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a ~~Ratepayer~~Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section ~~8~~9(3)) are deemed to be irrevocable, final and effective without any further action, ~~in~~except to the ~~absence~~extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

[8] Determine if this is critical for rating and markets. Logistics under consideration.

~~[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation.~~[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. ~~Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis~~Consider if it is helpful to integrate the existing regulatory scheme for ~~a market based credit decision.~~invoicing and collections (regarding RPP) in the legislation.

~~(6) [Anti-avoidance; No-by-pass – Transition Charges charged to a Ratepayer in respect of any Finance Amount incurred under with the Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]~~

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a ~~Ratepayer~~Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the ~~Ratepayer~~Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable ~~Ratepayer~~Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each ~~Regulatory Asset Owner~~Absolute Assignee (or the ~~Administrative~~Financial Services Agent on its behalf) shall provide the ~~Servicer~~OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~[21]OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the ~~Regulatory Asset Owners, which~~Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative ~~in~~, except to the ~~absence~~extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall apply the Attribution Methodology to determine the Allocation Factor for each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a ~~Ratepayer by the Servicer~~Retail Consumer and specified as such in an Electricity Invoice shall be

[20] ~~Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.~~

[21] ~~Should this be a designated government official, rather than an agent appointed by investors?~~

determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, ~~in~~except to the ~~absence~~extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to ~~Ratepayers~~Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor~~,~~ or any Alternative Servicer ~~or any [Alternative Collection Agent]~~ to ensure that Transition Charges are properly charged to ~~Ratepayers~~Retail Consumers and specified as such in Electricity Invoices.

[22] ~~Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts~~]~~ to collect amounts owing by ~~Ratepayers~~Retail Consumers in respect of Transition Charges charged to such ~~Ratepayers~~Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from ~~Ratepayers~~Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(3) **Electricity Distributor Remittances** – On each ~~[~~applicable Remittance Date~~]~~, an Electricity Distributor shall remit all Transition Charge Collections received by it from ~~Ratepayers~~Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from ~~Ratepayers~~Retail Consumers that pay their Electricity Invoices directly to ~~the Servicer.~~[23]IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall ~~[~~promptly~~]~~ segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(6) **IESO Remittances** – On each ~~[~~Settlement Date~~]~~[24][13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the ~~Regulatory Asset Owner~~Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

[10] Mirror collection "standard of care" under applicable legislation.
[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.
~~[23]~~[12] Consider building this obligation into a deemed condition of licence for the IESO.
~~[24]~~[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **~~Successors of~~ IESO Successor** – ~~Any successor of~~ IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province~~25~~14, then such person shall, if requested by the ~~Regulatory Asset Owners~~Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to ~~Ratepayers~~Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by ~~Ratepayers~~Retail Consumers as provided in this ~~Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d~~Act; (c) exercise all enforcement rights of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees for the benefit of ~~a Regulatory Asset Owner or Pledgee~~an Absolute Assignee; and (~~e~~d) remit any Transition Charge Collections to the ~~Regulatory Asset Owner or Pledgee~~Absolute Assignees or Pledgees, as applicable, each in accordance with its ~~Regulatory Asset~~Investment Interest.

(10) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners and any Pledgee~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative ~~Servicer~~Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from ~~Ratepayers~~Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure. ~~26~~

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the

~~25~~14 This is in anticipation of a possible future restructuring of the distribution system. ~~Also, this would cover any OREC-eligible customer (market participant) of IESO.~~

~~26 Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the ~~Regulatory Asset Owners~~Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any ~~Ratepayer~~Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~27~~15

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by ~~the Regulatory Asset Owners or Pledgee~~and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the ~~applying party~~Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees, each with respect to its ~~Regulatory Asset.~~ Investment Interest, and the Pledgees as applicable.[16]

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by ~~the Regulatory Asset Owner~~some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute ~~an existing, present~~a current and irrevocable property right and interest consisting, collectively, of the following rights and interests ~~of a Regulatory Asset Owner in the following~~ (without duplication):

~~27~~15 Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a ~~Ratepayer~~Retail Consumer reduces its payment of Transition Charges, despite this language~~, and same~~. Same for Electricity Distributor Remittances and IESO Remittances.

[16] Consider adding or substituting this provision for a right to appoint a receiver.

a. the right of ~~a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts~~IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from ~~Ratepayers~~Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this ~~Part~~Act;

c. the right to enforce the obligations and indebtedness of each ~~Ratepayer~~Retail Consumer to pay the Transition Charges charged to the ~~Ratepayer~~Retail Consumer from time to time in accordance with Article ~~2~~,3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article ~~4~~5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article ~~4~~5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Disposition that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Disposition by ~~a Regulatory Asset Owner~~IESO to an Absolute Assignee made under the Financing Plan ~~pursuant to a Disposition Document~~, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with ~~its~~the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the ~~Regulatory Asset~~applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof~~. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.]~~[28], and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

~~[28] Consider if helpful to investors, or delete.~~

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Pledge that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Pledge by ~~a Regulatory Asset Owner~~an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the ~~Regulatory Asset~~related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - ~~Any Pledge made by a~~For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset ~~Owner~~shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation ~~incurred under the Financing Plan shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset~~may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the ~~Regulatory Asset Owner~~Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected~~, without any physical delivery thereof, registration of any financing statement with respect thereto~~ pursuant to the ~~[~~PPSA~~]~~ ~~or any other further act.~~[29].[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may ~~subsequently~~ attach to the property rights and interests in the ~~Regulatory Asset~~Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. ~~Any~~Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. ~~[A Pledgee~~All provisions of the PPSA shall ~~cause a financing statement to be filed in respect of a Pledge on the basis that~~apply to the Regulatory Asset on the basis that it is ~~"~~intangible~~"~~ personal property, ~~for informational purposes only under the [PPSA].~~except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and

~~[29]~~[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's ~~right~~rights and ~~interest~~interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective ~~[~~and ~~joint]~~coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.[30]

Article 7 – Establishment of the Fair Allocation Plan[31][18]

(1) Adoption of the Fair Allocation Plan – The ~~[Minister of Energy]~~[32]Delegate may , [by written ~~order~~declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this ~~Part~~Act, ~~[~~except if amended, amended and restated or terminated by a further written ~~order issued~~declaration made by the ~~Minister of Energy~~Delegate in compliance with Section ~~•~~]7(4).

(2) Principles and Parameters[33] – A Fair Allocation Plan shall seek to allocate ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits across present and future ~~Ratepayer~~Retail Consumer Groups on a basis that the ~~Minister of Energy~~Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters[34]:

1. ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits should be allocated over ~~a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts~~the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods ~~(e.g., 6 month periods),~~ for the purpose of identifying applicable ~~Ratepayer~~Retail Consumer Groups and allocating ~~among them responsibility to bear the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits among them on a relative basis over time.

[30] ~~This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.~~

[31][18] The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current ~~Power Contracts~~procurement contracts and not invest in extending service lives to secure further ~~power~~procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

[32] ~~Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).~~

[33] ~~Consideration will be given as to whether these details should be included in the Regulation.~~

[34] ~~We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just illustrative to advance a discussion among the stakeholders.~~

3. The share of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits allocable to a particular ~~Ratepayer~~Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the ~~Ratepayer~~Retail Consumer Group over such Reference Period.

4. The ~~estimated Unrecovered~~share of Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated to a ~~Ratepayer~~Retail Consumer Group and any future ~~Ratepayer~~Retail Consumer Group at a particular time should not exceed the ~~estimated value of the Related Generating Assets based on their remaining useful lives or terms~~Estimated Future Green Transition Benefits, measured in respect of the ~~period~~Reference Periods following such particular time and to the Program End Date.

5. No future ~~Ratepayer~~Retail Consumer Group should ~~bear~~be allocated an unreasonably disproportionate share of ~~the Unrecovered~~Estimated Future Green Transition ~~Costs~~Benefits. Except in exceptional circumstances or in the case of any ~~backward-looking adjustment made~~reallocation of an Over-Assessed Amount as contemplated in 7, below, the ~~share of the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated under a Fair Allocation Plan to any future ~~Ratepayer~~Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*[35].

6. ~~A reasonable estimate of the rate of inflation~~The time value of money should be ~~applied~~reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal ~~amount of Unrecovered Transition Costs to be allocable to Ratepayer~~allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. ~~Backward-looking adjustments to a~~To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may ~~be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative.~~determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) Attribution Methodology – The Fair Allocation Plan ~~[~~shall~~]~~ specify ~~an objective methodology (~~the "~~Attribution Methodology~~")~~ for the purposes of allocating the Period

~~[35] Consider if a quantitative limit needs to be included in the legislation.~~

Transition Charges across ~~all of~~ the ~~Ratepayers~~Retail Consumers of a particular ~~Ratepayer~~Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that ~~are~~is considered by the ~~Minister of Energy~~Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) ~~**[Confirmation][Review] of the Fair Allocation Plan** – [OEB?][36]~~**Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The ~~Financing Plan~~[37]IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting

~~[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.~~

~~[37] Consideration will be given as to whether these details should be included in the Regulation.~~

market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare ~~and~~, Implement and Amend the Financing Plan** – ~~In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall~~The Financial Services Agent shall be authorized to prepare, implement and ~~propose~~amend the~~ adoption of a~~ Financing Plan. If the ~~Administrative~~Financial Services Agent is unwilling or unable to prepare and propose the adoption of ~~a~~the Financing Plan, the ~~Minister of Energy~~Delegate may by written ~~order~~declaration designate one or more other persons who shall be authorized to prepare ~~and~~, implement ~~such a~~and amend the Financing Plan.

(2) ~~**Required**~~ **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions ~~that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan~~. The Financing Plan shall ~~be consistent with~~have regard to the principles~~,~~ and parameters~~, requirements and conditions~~ set forth in Schedule 3 and such other conditions and requirements as may be specified in a written ~~order~~declaration of the ~~Minister of Energy [~~Delegate or in accordance with the Regulation~~]~~.

(3) ~~**Power to Review and Approve the Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the Financing Plan, and submit a revised Financing Plan to the designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]~~**OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) ~~**Approval of Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the Financing Plan based solely on whether the Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the Financing Plan, then such Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the Financing Plan or otherwise fails to approve the Financing Plan, then the Administrative Agent shall re-submit the Financing Plan with such amendments as the Administrative~~

Agent shall consider necessary for the Financing Plan to be approved by the OEB.[38] **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) **Consistency with the Fair Allocation Plan** – Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the Financing Plan shall require the Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(5) **(6) Establishment of Special Purpose Entities** – If the implementation of the Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]**Replacement of the Administrative Agent** – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) **(7) Obligation to Apply IESO Remittances** – The AdministrativeFinancial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset OwnersAbsolute Assignees, or otherwise in respect of or

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).

as proceeds from ~~the Regulatory Asset~~an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.[39]

(7) ~~(8)~~ **Non-Recourse** – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, ~~and~~any Alternative Collection Agent, the ~~Administrative~~Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this ~~Part~~Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) ~~(9)~~ **Incurrences are Binding** – ~~Despite any failure to adhere to the Financing Plan or to comply with any requirement of this Part,~~Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of ~~a Regulatory Asset Owner~~an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this ~~Part~~Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article ~~9~~10 – Compliance Matters[40~~19~~]

(1) **Right of the [OEB] to Inspect Books and Records** - For the purpose of investigating compliance with the provisions of this ~~Part~~Act, the ~~[~~OEB~~]~~ shall have the right, jurisdiction, power and authority to examine the books and records of ~~any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation~~*~~[Insert names if any]~~*.

~~(2) **Power to Investigate Compliance and Impose Regulatory Sanctions** - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the [OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].~~

(2) ~~(3) [Other Rating~~**OPG's Rate Settings** – When setting other rates for or in respect of ~~any person who is or may become obligated or have duties that arise under this Part,~~

[39] ~~We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.~~

[40~~19~~] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article ~~is~~and any potential role for the Auditor General is still under consideration.

[41] ~~Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.~~

~~including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking~~OPG, the OEB shall not take into account (a) the ~~collection by or attribution to such person of~~ administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.~~]~~[42]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article ~~10~~11 – Undertaking of the Lieutenant Governor in Council[43][21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of ~~Ratepayers~~Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect. The amount of Transition Charges determined ~~hereunder~~under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) ~~**(2) Undertaking and Agreement** – The Lieutenant Governor in Council shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or,~~ except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the ~~Regulatory Asset Owners, including any~~ Absolute ~~Assignee from time to time, and~~Assignees or any Pledgee from time to time~~[~~,~~including through the introduction of any bill or the passing of any legislation or regulation~~]~~.;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination

[42] ~~OPG has indicated that the risks and cost consequences to OPG of being an~~[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent ~~or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for~~of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role. ~~To be discussed.]~~

[43] ~~Under consideration~~[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

(4) ~~[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners shall be fully~~**Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article ~~10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.~~[44]11.[22]~~]~~

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) ~~**(3)**~~ **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article ~~11~~12 – Regulations

Regulations may be made under this ~~Part~~Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with ~~a Regulatory Asset Owner~~an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding ~~Costs~~Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this ~~Part~~Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

[44][22] Requested by Torys. For discussion.

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this ~~Part~~Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by ~~a Regulatory Asset Owner~~an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article ~~12~~13- Miscellaneous[~~45~~23]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this ~~Part~~Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this ~~Part~~Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this ~~Part~~Act shall be required with respect to the actions to be taken in compliance with this ~~Part~~Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this ~~Part~~Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this ~~Part~~Act, if any provision of this ~~Part~~Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this ~~Part~~Act that is taken by any person who is or may become obligated or have duties that arise under this ~~Part~~Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this ~~Part~~Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this ~~Part~~Act are intended to be

[~~45~~23] OPG would like the specific amendments related to OPG to be included in the Bill.]

severable and that the Legislature would have enacted this ~~Part~~Act even if any Article, Section, paragraph or subparagraph of this ~~Part~~Act held to be unconstitutional or invalid had not been included in this ~~Part~~Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles, and Parameters, Requirements and Conditions for Establishing the Financing Plan

The Financing Plan shall have regard to the following principles, and parameters, requirements and conditions:[***Consider others.***] provide a guideline as to what a Financing Plan should address:

(1) the Financing Plan shall, in respect of each Reference Period, describemake reference to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of theIESO Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describeconsider alternative funding arrangements considered to be suitable for the purpose of fundingto fund the estimated IESO Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset Owners for such purpose;

(9) **(4)** such Funding Obligations shall reflectconsider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of eachfor a Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) the Financing Plan shall reflect the outcome of a financial model that incorporatesreflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical RatepayerRetail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the Financing Plan may permit the OEB to check progress against the model from***

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

~~***time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***~~]

(6) ~~the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to~~ incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the ~~Regulatory Asset Owners~~Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the ~~Administrative~~Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations ~~shall~~should not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the ~~Administrative~~Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the ~~Administrative~~Financial Services Agent shall cause the applicable ~~Regulatory Asset Owner~~Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the ~~Administrative~~Financial Services Agent will select counterparties under any transaction to be entered into by ~~a Regulatory Asset Owner~~an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note

trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the ~~Administrative~~Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the ~~Administrative~~Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding ~~Shortfall~~Shortfalls from time to time on a basis that is consistent with the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the ~~Administrative~~Financial Services Agent and other agents and service providers to the ~~Regulatory Asset Owners~~Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by ~~a Regulatory Asset Owner~~an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) ~~a description of each~~describe the requirements applicable to any special purchase entity that will purchase ~~the Regulatory Asset from the IESO~~an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities ~~having regard to the parameters in Schedule 4~~; and

(16) the basis on which any Pledge may be given or effected.

~~**Schedule 4**~~

~~**Creation of any Special Purpose Entity to become a Regulatory Asset Owner]**~~

~~**(1) Powers and Abilities**:~~

~~a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;~~

~~b. Each Regulatory Asset Owner shall be authorized to:~~

~~i. incur the Funding Obligations contemplated by a Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;~~

~~ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a Financing Plan and for administrative services; and~~

~~iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;~~

~~c. So long as any Funding Obligations contemplated under a Financing Plan are outstanding, a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;~~

~~d. a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a Financing Plan;~~

~~e. a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a Financing Plan; and~~

~~f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a Financing Plan.~~

~~**(2) Governance of Regulatory Asset Owner –** A Regulatory Asset Owner shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]~~

~~a. [Number of trustees]~~

~~b. [Replacement of trustees; vacancies; appointment of successors]~~

~~c. [Removal of trustees for neglect of duty or misconduct]~~

~~d. [Quorum and meetings]~~

~~e. [Fiduciary duty]~~

~~f. [Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]~~

~~g. [Delegation of powers and duties to administrative agents]~~

~~h. [Delegation of powers and duties to administrative agents]~~

(17)

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Rendering set	Standard

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Insertion	
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Statistics:	
	Count
Insertions	596
Deletions	610
Moved from	25
Moved to	25
Style change	0
Format changed	0
Total changes	1256

From:	John Kim
To:	Bruno Amara; Shajee Kathirgamanathan; Adam Prokop; Salman Qadir
Cc:	Gavin He
Subject:	Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Tuesday, April 11, 2017 8:02:53 AM
Attachments:	TOR_2528-#23107566-v9-_Fair_Hydro_Act_.DOCX ATT00001.htm TOR_2528-#23107566-vpdf-_Fair_Hydro_Act_.PDF ATT00002.htm

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Pls. Have a look. Not necessarily our part but anything related to the equity injection, if any, would be primary focus.

Begin forwarded message:

> **From:** "Gavin He" <Gavin.He@ofina.on.ca>
> **To:** "John Kim" <John.Kim@ofina.on.ca>
> **Cc:** "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>
> **Subject: Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)**
>
> Hi John,
>
> Please find attached the revised draft legislative summary for your review.
>
> Please note that any comments are due by 2:00 p.m. tomorrow.
>
> Regards,
> Gavin He
>
> Begin forwarded message:
>
> > **From:** "ASHBOURNE, STEPHEN" <STEPHEN.ASHBOURNE@blakes.com>
> > **To:** "Feldman, Michael" <mfeldman@torys.com>, "JACKSON, ADAM" <ADAM.JACKSON@blakes.com>, "Peter Hamilton (PHamilton@stikeman.com)" <PHamilton@stikeman.com>, "LEE John -TREASURY" <john.s.lee@opg.com>, "RYFA Ken - TREASURY" <ken.ryfa@opg.com>, "WONG Leslie -LAWDIV" <leslie.wong@opg.com>, "MCAULEY Tyler -LAWDIV" <tyler.mcauley@opg.com>, "WILSON, JUDY" <JUDY.WILSON@blakes.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "Hill, Krista" <khill@torys.com>, "Ramchandani, Rima" <rramchandani@torys.com>, "Keizer, Charles" <ckeizer@torys.com>, "Myers, Jonathan" <jmyers@torys.com>, "Emes, Aaron" <aemes@torys.com>, "Mansoori, Nina"

<nmansoori@torys.com>, "Wortsman, Jerald"
<jwortsman@torys.com>, "Bomhof, Scott" <sbomhof@torys.com>,
"Estey, Bill" <bestey@torys.com>, "Watson, Gwen"
<gwatson@torys.com>, "James Rehob (ENERGY)"
<James.Rehob@ontario.ca>, "Alan Hibben"
<alan.hibben@rogers.com>, "Dan Shear (ENERGY)"
<Dan.Shear@ontario.ca>, "Carolyn Calwell (MCSS)"
<Carolyn.Calwell@ontario.ca>, "O'Brian, Adam"
<aobrian@hunton.com>, "Fitzpatrick, Michael F."
<MFitzpatrick@hunton.com>, "STOKES, BRYSON"
<BRYSON.STOKES@blakes.com>, "VINER, JON"
<JON.VINER@blakes.com>, "Brad.Purkis@tdsecurities.com"
<Brad.Purkis@tdsecurities.com>, "Scott Nelms (ENERGY)"
<Scott.Nelms@ontario.ca>, "ESmith@osler.com"
<ESmith@osler.com>, "RSebastiano@osler.com"
<RSebastiano@osler.com>, "Michael.Boll@ieso.ca"
<Michael.Boll@ieso.ca>, "GZacher@stikeman.com"
<GZacher@stikeman.com>, "aobrian@hunton.com"
<aobrian@hunton.com>, "Tim Christie (ENERGY)"
<Tim.Christie@ontario.ca>, "Carolyn Calwell (MCSS)"
<Carolyn.Calwell@ontario.ca>, "Paul Johnson (ENERGY)"
<Paul.Johnson3@ontario.ca>, "Dan Shear (ENERGY)"
<Dan.Shear@ontario.ca>, "James Rehob (ENERGY)"
<James.Rehob@ontario.ca>, "Ronald Kwan"
<Ronald.Kwan@ofina.on.ca>, "Gavin He"
<Gavin.He@ofina.on.ca>, "Veinot, Cindy (TBS)"
<Cindy.Veinot@ontario.ca>, "Hosick, Sarah (TBS)"
<Sarah.Hosick@ontario.ca>, "Scott Nelms (ENERGY)"
<Scott.Nelms@ontario.ca>, "kim.marshall@ieso.ca"
<kim.marshall@ieso.ca>, "'LEE John -TREASURY'
(john.s.lee@opg.com)" <john.s.lee@opg.com>, "Hilary Cox (ENE)"
<Hilary.Cox@ontario.ca>, "Hilloowala, Maharukh"
<Maharukh.Hilloowala@tdsecurities.com>, "Wolff, Michael"
<Michael.Wolff@tdsecurities.com>, "Holloway, Harold"
<Harold.Holloway@tdsecurities.com>, "Akman, Steven"
<Steven.Akman@tdsecurities.com>, "Manii, David"
<david.manii@tdsecurities.com>, "Nevison, Gary"
<Gary.Nevison@tdsecurities.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
blakes.com[blakes.com] **| Twitter**[twitter.com] **| Unsubscribe**[blakes.com]

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Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act"

Article 1 – Purpose

The Province has and continues to encourage the construction and development of facilities for the long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer, feed in tariff and other similar programs (the "Green Generation Initiative"). The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative will be well in excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative equitably across present and future Retail Consumers (the "Fair Allocation Plan").

If the Fair Allocation Plan determines that the equitable allocation of the costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period should be reduced below the amount that currently would be charged based on the Green Costs

Adjustment, then the amount payable by such Retail Consumers and in turn available to IESO will, in the aggregate, be less than the amount payable by the IESO to the generators in respect of such period. In this case IESO will need to obtain funding from another source to cover such a shortfall. If a funding obligation is incurred by IESO to cover such a shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs incurred will become payable in one or more future periods. In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding amounts when they become due and payable, this Act imposes irrevocable and non-bypassable financial obligations on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts. The right and interest in and to collect such financial obligations will take the form of the Regulatory Asset contemplated in this Act, which will constitute property rights and interests. Interests in the Regulatory Asset may be sold and absolutely assigned by IESO to one or more financing entities, which in turn will finance their acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf such financing entities by a financial services agent under the Financing Plan contemplated in this Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations, to be borne by the future Retail Consumers of the period in which such payment obligations become due, with the benefits of the Green Generation Initiative allocated to such future Retail Consumers under the Fair Allocation Plan.

The purpose of this Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this Act:

> “Absolute Assignee” means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> “Actual” means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the Financial Services Agent whose records shall be determinative for the purposes of this Act except to the extent of a manifest calculation error.
>
> “Additional Funding Charges” means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the Financial Services Agent on behalf of, the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on the Absolute

Assignee or incurred by on behalf of the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

"Allocation Factor" means, in respect of a Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the Retail Consumer by the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to individual Retail Consumers of the applicable Retail Consumer Group based on its Allocation Factor.

"Collected Amount Adjustment" means, in respect of a True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the Financial Services

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[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those may be identified and caught by the True-Up.

[2] This allocation may be volumetric or some combination of a flat amount and a volumetric charge. Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

Agent, as applicable, equal to (a) the Estimate of the Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3), including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by any of a Electricity Distributor (or in its stead, by an Alternative Servicer), by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any

---

[3] This would pick up adjustments based on actual collection experience, changes in the retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

Retail Consumer Group, the estimated value (in current dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this Act except to the extent of a manifest calculation error.

"Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition under the Financing Plan.[6]

"Financing Plan" means the written plan prepared by the Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 9 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred by an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (j) the cash flows arising from time to time or otherwise derived from an Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to its Funding Obligations, exceeds (b) the aggregate of all amounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other

---

[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

"Generator" means a generator of electricity that is subject to the *Electricity Act, 1998*.

"Global Adjustment" has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" has the meaning given in Article 1.

"IESO" means the Independent Electricity System Operator created pursuant to Part II of the *Electricity Act, 1998*.

"IESO Available Amount" means, for a Reference Period, the lesser of (a) the amount (if any) by which (i) the Maximum Transition Charge Amount for the Reference Period, exceeds (ii) Period Finance Amount for the Reference Period, and (b) the IESO Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the Investment Interest.

"Pledgee" means a person to whom an Absolute Assignee grants a Pledge.

"Program End Date" means •, [2047].

"Province" means the Province of Ontario.

"Redemption Amount" means the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the Measurement Date to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of the Absolute Assignee by applying the net proceeds obtained by the Absolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rights and interests described in Section 6(1), which collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which IESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent of) the IESO Retained Interest and (b) each Absolute Assignee, as owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively IESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7).

"Related Rights" means all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their

own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with the *Electricity Act, 1998*.

"Servicer" means IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a Retail Consumer in respect of a Reference Period, (a) the Period Transition Charge, (b) multiplied by its Allocation Factor in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this Act to have been received upon the collection of a Transition Charge paid by or on behalf of a Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section 11(2).

Article 3 – Transition Charges

(1) Retail Consumer Obligation to Pay a Transition Charge – Each Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

(2) **Indebtedness of Retail Consumers** – Until paid, a Transition Charge charged to a Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the Retail Consumer to the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the Retail Consumer under the Electricity Invoice or otherwise.[9]

(3) **No Set-Off or Reduction** – A Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section 9(3)) are deemed to be irrevocable, final and effective without any further action, except to the extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

Article 4 – Invoicing of Transition Charges

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued

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[8] Determine if this is critical for rating and markets. Logistics under consideration.

[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. Consider if it is helpful to integrate the existing regulatory scheme for invoicing and collections (regarding RPP) in the legislation.

by the Electricity Distributor or if applicable by the Alternative Servicer to the Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each Absolute Assignee (or the Financial Services Agent on its behalf) shall provide the OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative, except to the extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the Allocation Factor for each Retail Consumer of the applicable Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each Retail Consumer of the applicable Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a Retail Consumer and specified as such in an Electricity Invoice shall be determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, except to the extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative

Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Servicer to ensure that Transition Charges are properly charged to Retail Consumers and specified as such in Electricity Invoices.

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts to collect amounts owing by Retail Consumers in respect of Transition Charges charged to such Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(3) **Electricity Distributor Remittances** – On each applicable Remittance Date, an Electricity Distributor shall remit all Transition Charge Collections received by it from Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

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[10] Mirror collection “standard of care” under applicable legislation.

[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from Retail Consumers that pay their Electricity Invoices directly to IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall promptly segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for the Regulatory Asset Owners.

(6) **IESO Remittances** – On each Settlement Date[13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **IESO Successor** – IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province[14], then such person shall, if requested by the Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by Retail Consumers as provided in this Act; (c) exercise all enforcement rights of the Absolute Assignees for the benefit of an Absolute Assignee; and (d) remit any Transition Charge Collections to the Absolute Assignees or Pledgees, as applicable, each in accordance with its Investment Interest.

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[12] Consider building this obligation into a deemed condition of licence for the IESO.

[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

[14] This is in anticipation of a possible future restructuring of the distribution system.

(10) **Absolute Assignees have Standing** – The Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province shall have jurisdiction over any actions brought before it by the Absolute Assignees in relation to any such failure.

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.[15]

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity

[15] Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a Retail Consumer reduces its payment of Transition Charges, despite this language. Same for Electricity Distributor Remittances and IESO Remittances.

Distribution Remittances and IESO Remittances, as applicable, for the benefit of the Absolute Assignees, each with respect to its Investment Interest, and the Pledgees as applicable.[16]

(14) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute a current and irrevocable property right and interest consisting, collectively, of the following rights and interests (without duplication):

a. the right of IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this Act;

c. the right to enforce the obligations and indebtedness of each Retail Consumer to pay the Transition Charges charged to the Retail Consumer from time to time in accordance with Article 3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the

[16] Consider adding or substituting this provision for a right to appoint a receiver.

Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article 5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Disposition that may arise by operation of any applicable law of the Province, a Disposition by IESO to an Absolute Assignee made under the Financing Plan, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof, and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and

the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province or any consent requirement applicable to a Pledge that may arise by operation of any applicable law of the Province, a Pledge by an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected pursuant to the PPSA.[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may attach to the property rights and interests in the Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. All provisions of the PPSA shall apply to the Regulatory Asset on the basis that it is intangible personal property, except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

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[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

(8) **Collective Action Required** – If a Regulatory Asset Owner's rights and interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective and coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.

Article 7 – Establishment of the Fair Allocation Plan[18]

(1) Adoption of the Fair Allocation Plan – The Delegate may, [by written declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this Act, except if amended, amended and restated or terminated by a further written declaration made by the Delegate in compliance with Section 7(4).

(2) Principles and Parameters – A Fair Allocation Plan shall seek to allocate Future Fair Share of Green Transition Benefits across present and future Retail Consumer Groups on a basis that the Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters:

1. Future Fair Share of Green Transition Benefits should be allocated over the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods for the purpose of identifying applicable Retail Consumer Groups and allocating Future Fair Share of Green Transition Benefits among them on a relative basis over time.

3. The share of Future Fair Share of Green Transition Benefits allocable to a particular Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the Retail Consumer Group over such Reference Period.

4. The share of Future Fair Share of Green Transition Benefits to be allocated to a Retail Consumer Group and any future Retail Consumer Group at a particular time should not exceed the Estimated Future Green Transition Benefits, measured in respect of the Reference Periods following such particular time and to the Program End Date.

5. No future Retail Consumer Group should be allocated an unreasonably disproportionate share of Estimated Future Green Transition Benefits. Except in exceptional circumstances or in the case of any reallocation of an Over-Assessed Amount as contemplated in 7, below, the Future Fair Share of Green Transition Benefits to be allocated under a Fair Allocation Plan to any future

18 The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current procurement contracts and not invest in extending service lives to secure further procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*.

6. The time value of money should be reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) **Attribution Methodology** – The Fair Allocation Plan shall specify the Attribution Methodology for the purposes of allocating the Period Transition Charges across the Retail Consumers of a particular Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that is considered by the Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) **Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare, Implement and Amend the Financing Plan** – The Financial Services Agent shall be authorized to prepare, implement and amend the Financing Plan. If the Financial Services Agent is unwilling or unable to prepare and propose the adoption of the Financing Plan, the Delegate may by written declaration designate one or more other persons who shall be authorized to prepare, implement and amend the Financing Plan.

(2) **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions. The Financing Plan shall have regard to the principles and parameters set forth in Schedule 3 and such other conditions and requirements as may be specified in a written declaration of the Delegate or in accordance with the Regulation.

(3) **OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) Replacement of the Administrative Agent – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) Obligation to Apply IESO Remittances – The Financial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Absolute Assignees, or otherwise in respect of or as proceeds from an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.

(7) Non-Recourse – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) Incurrences are Binding – Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article 10 – Compliance Matters[19]

(1) Right of the [OEB] to Inspect Books and Records - For the purpose of investigating compliance with the provisions of this Act, the OEB shall have the right, jurisdiction, power and authority to examine the books and records of *[Insert names if any]*.

(2) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG

[19] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article 11 – Undertaking of the Lieutenant Governor in Council[21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly, including through the introduction of any bill or the passing of any legislation or regulation having such effect. The amount of Transition Charges determined under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council, including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the Absolute Assignees or any Pledgee from time to time;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

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[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

(4) **Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article 11.[22]

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article 12 – Regulations

Regulations may be made under this Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article 13- Miscellaneous[23]

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[22] Requested by Torys. For discussion.

[23] OPG would like the specific amendments related to OPG to be included in the Bill.]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this Act shall be required with respect to the actions to be taken in compliance with this Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this Act, if any provision of this Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this Act that is taken by any person who is or may become obligated or have duties that arise under this Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this Act are intended to be severable and that the Legislature would have enacted this Act even if any Article, Section, paragraph or subparagraph of this Act held to be unconstitutional or invalid had not been included in this Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles and Parameters for Establishing the Financing Plan

The following principles and parameters provide a guideline as to what a Financing Plan should address:

(1) in respect of each Reference Period, make reference to the allocations of Future Fair Share of Green Transition Benefits to each Reference Group contemplated by the Fair Allocation Plan;

(2) estimate IESO Funding Shortfalls for each Reference Period;

(3) consider alternative funding arrangements suitable to fund the estimated IESO Funding Shortfalls, including short term and/or long term Funding Obligations;

(9) consider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that payments made for a Reference Period reasonably correspond to the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) reflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical Retail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology);

(6) incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations should not obligate an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of Future Fair Share of Green Transition Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the Financial Services Agent shall cause the applicable Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the Financial Services Agent will select counterparties under any transaction to be entered into by an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding Shortfalls from time to time on a basis that is consistent with the allocations of Future Fair Share of Green Transition Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the Financial Services Agent and other agents and service providers to the Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) describe the requirements applicable to any special purchase entity that will purchase an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities; and

(16) the basis on which any Pledge may be given or effected.

CONFIDENTIAL AND PRIVILEGED

Preliminary Draft for Discussion Purposes Only

"Fair Hydro Act" ~~– Part V.2~~

Article 1 – Purpose[1]

~~IESO has entered into Power Contracts with Generators. The agreed-upon reference prices and quantities set out therein were determined based on commitments made by IESO to provide Generators with long-term price certainty, so as~~The Province has and continues to encourage the construction and development of facilities for the ~~purpose of~~ long-term operation and generation of electricity in the Province using sustainable, lower carbon-based technologies such as new gas-fired generation, renewable facilities, energy from waste and biomass, including under the Province's various procurement, standard offer ~~and~~, feed in tariff and other similar programs (the "Green Generation Initiative"). ~~[The terms of the Power Contracts were intended to approximate the anticipated useful life of the related generation assets]; however, it has been determined that the useful life of many of these assets will be well in excess of the actual term of the related Power Contracts and will extend over more than one generation of ratepayers.~~ The long-term benefits of the Green Generation Initiative accrue over time and have benefited and will benefit present and future ~~ratepayers of the Province. Currently, market prices for electricity are less than the reference prices set out in the Power Contracts, leaving a gap in funding which is funded by charging consumers a "Global Adjustment" (part of which is available to IESO to pay this shortfall).~~electricity consumers in the Province.

The imputed costs of the Green Generation Initiative are currently passed through to electricity consumers by way of a monthly adjustment amount (the "Green Costs Adjustment"), which in turn forms part of the overall adjustment calculated by the Independent Electricity System Operator ("IESO") pursuant to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* (the "Global Adjustment"). The Global Adjustment is included as a charge billed to electricity consumers in their monthly electricity invoices.

~~Each month, the IESO determines the Global Adjustment payable by consumers for the consumption~~The Green Costs Adjustment is currently determined each month by reference to the amounts paid by IESO to the generators of electricity in the Province~~. A component of the Global Adjustment is the amount by which the reference prices in the Power Contracts~~ under the Green Generation Initiative, which may be higher than prevailing market price for electricity. These differences arise because IESO has entered into long-term procurement contracts with such generators in order to provide them with long-term price certainty for electricity, and in turn to encourage the generators to develop technologies and to construct and develop facilities consistent with the Green Generation Initiative. In general, whenever amounts payable under these procurement contracts exceed the market price for electricity~~ for the quantities of electricity specified under the Power Contracts for the relevant period[2]. The relationship between the past, present and future benefits to Ratepayers from~~, the Green Costs Adjustment passes through the amount of such differences as part of the monthly charge to electricity consumers. Such amount then becomes available to IESO to meet its obligations under the procurement contracts. It has been determined that the useful lives of many of the assets encouraged by the Green Generation Initiative~~, on the one hand, and the costs of~~ will be well in

[1] ~~Consider the scope and breadth of the Purpose section. This text is considered to be useful to establish the legislative basis for the statute, which text will be useful in the event of a challenge.~~

[2] ~~Consider modifying this to also refer to gas contracts and hydroelectric contracts, which provide for mechanics that are not based on contracts for differences.~~

excess of the respective terms of the related procurement contracts, and in many cases may extend over more than one generation of electricity consumers.

Since the benefits to past, present and future electricity consumers from the Green Generation Initiative ~~borne by past, present and future Ratepayers through their respective allocations of the Global Adjustment, on the other hand, do not necessarily reflect an equitable allocation of such benefits and costs over time, with the result that an adjustment may be appropriate to address inter-generational fairness considerations. Such an adjustment should reflect~~will not necessarily coincide with the costs currently attributed through the Green Costs Adjustment, based on the respective durations of the procurement contracts, it has been determined that the rate at which the costs associated with the Green Generation Initiative should be passed through to Retail Consumers (as defined in Article 2) should be more closely aligned with the benefits that such Retail Consumers have derived and are expected to derive from the Green Generation Initiative over time. This realignment will be based on principles and parameters that ~~can be applied from time to time in order to~~ establish a reasonable basis for measuring and allocating the relative costs and benefits of the Green Generation Initiative ~~across present and future Ratepayers. A plan to allocate such costs and benefits~~ equitably across present and future ~~Ratepayers may be developed based on those principles and parameters (a~~Retail Consumers (the "Fair Allocation Plan").

If ~~a~~the Fair Allocation Plan determines that the equitable allocation of the ~~Global Adjustment to the Ratepayers~~costs associated with the Green Generation Initiative to the Retail Consumers of a particular time period ~~in respect of the Power Contracts~~ should be reduced below the amount ~~otherwise determined,~~that currently would be charged based on the Green Costs Adjustment, then the amount payable by such ~~Ratepayers to Electricity Distributors in respect of such period,~~Retail Consumers and in turn ~~by the Electricity Distributors to the~~available to IESO~~, would~~ will, in the aggregate, be less than the amount payable by the IESO to the ~~Generators under the Power Contracts~~generators in respect of such period. ~~If the difference is greater than any net Power Contract surpluses available to IESO from earlier periods, IESO will have a funding shortfall.[3] In order for IESO to cover such a funding shortfall for a period,~~In this case IESO will need to obtain funding from another source~~, which could include funding from third party sources operating in public and private capital markets~~ to cover such a shortfall. If a funding obligation is incurred ~~in order to enable the~~by IESO to cover such a ~~funding~~ shortfall during one period, the repayment of such funding obligation will be required in a future period, and any related repayments, finance costs, hedging costs and other transaction costs ~~will be~~ incurred ~~and may~~will become payable in one or more ~~other~~future periods. ~~It will be necessary to provide~~In order for IESO to obtain a reliable and committed source of cash flows to enable IESO to repay such funding ~~obligations and to pay related funding costs with certainty when the funding obligations~~amounts when they become due and payable~~. This Part~~, this Act imposes irrevocable and non-bypassable financial obligations ~~of Ratepayers~~on Retail Consumers to pay amounts incurred in respect of such funding obligations when they become due and payable and establishes a right to invoice and collect such amounts . The right and interest in and to collect such financial obligations~~, which~~ will take the form of the Regulatory Asset contemplated in this ~~Part and~~Act, which will constitute property rights and interests. ~~The~~Interests in the Regulatory Asset ~~will~~may be sold and absolutely assigned ~~and will belong~~by IESO to one or more~~ newly created~~ financing entities, which in turn will finance their ~~purchase of such Regulatory Asset~~acquired interests by incurring funding obligations. The incurrence and payment of such funding obligations will be administered on behalf ~~the~~such financing entities by ~~an administrative~~a financial services agent~~ (initially OPG),~~ under the Financing Plan

~~[3] Confirm whether any RPP forecasting variance is to be included in (i) a funding shortfall; and (ii) related IESO financing costs to be included in Transition Charges.]~~

contemplated in this ~~Part~~Act. The Financing Plan will seek to reasonably match the payment obligations arising under such funding obligations ~~and~~, to be borne by the future ~~Ratepayers~~Retail Consumers of the period in which such payment obligations become due, with the ~~costs and~~ benefits of the Green Generation Initiative ~~charged~~allocated to such future ~~Ratepayers~~Retail Consumers under the Fair Allocation Plan.

The purpose of this ~~Part~~Act is to establish the basis upon which intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future ~~Ratepayers~~Retail Consumers on an equitable and cost effective basis.

Article 2 - Definitions

In this ~~Part~~Act:

> "Absolute Assignee" means a person to whom a Regulatory Asset Owner effects a Disposition.
>
> "Actual" means, in relation to costs, expenses or payments in respect of Funding Obligations during a Reference Period, the actual amount of such costs, expenses or payments paid or made (net of any Finance Reserve Withdrawals applied to pay such amounts), which amounts shall be recorded by the ~~Administrative~~Financial Services Agent whose records shall be determinative for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.
>
> "Additional Funding Charges" means, for a Reference Period in respect of an Absolute Assignee, the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by ~~the Regulatory Asset Owners~~or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan (whether at the time of such incurrence or over the term of the Funding Obligation and whether directly or indirectly), including (without duplication and without limitation): (a) any payment required under an ancillary agreement entered into by, or by the ~~Administrative~~Financial Services Agent on behalf of, ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan; (b) any federal, provincial or local taxes, payments in lieu of taxes, franchise fees or license fees imposed on ~~a Regulatory Asset Owner~~the Absolute Assignee or incurred by on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under any obligation to pay tax gross-up amounts to counterparties under Funding Obligations; (c) any amounts payable to the ~~Administrative~~Financial Services Agent, including amounts payable to its advisors and outside counsel; (d) any amounts incurred to prepare, confirm, amend and implement the Financing Plan; (e) any amounts payable to any Alternative Collection Agent or Alternative Servicer, including amounts payable to each's advisors and outside counsel; (f) any amounts incurred to make the calculations, determinations or confirmations to be made by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee; (g) any servicing fees and expenses; (h) any trustee fees and expenses; (i) any legal fees, expenses and disbursements; (j) any accounting fees and expenses; (k) any administrative fees and expenses; (l) any manager ~~of~~or director fees of a Financing Entity; (m) any registration fees and expenses; (n) any placement fees, underwriting fees, fees and related issuing expenses; (o) any rating agency fees; and (p) any other related fees, charges, expenses, costs, indemnities, reimbursements and other amounts that are approved in

good faith by the Financial Services Agent for recovery and payment under the Financing Plan.

~~"Administrative Agent" means [OPG] or, following any Replacement Event, such other person or persons who may be appointed as the administrative agent of the Regulatory Asset Owner under the Financing Plan in compliance with the requirements set out in Schedule 2.~~

"Allocation Factor" means, in respect of a ~~Ratepayer~~Retail Consumer for a Reference Period, the number (expressed as a percentage) determined in respect of the ~~Ratepayer~~Retail Consumer by ~~[IESO]~~the OEB based on the application of the Attribution Methodology in respect of the Reference Period.[4][1]

"Alternative Collection Agent" means a person appointed under Section 5(11) and in compliance with the requirements set out in Schedule 2 to assume the collection activities and activities of any Electricity Distributor or IESO under Article 5, as agent for and on behalf of the Regulatory Asset Owners.

"Alternative Servicer" means a person appointed under Section 4(8) to assume the obligations of the Servicer under Article 4, as agent for and on behalf of the Regulatory Asset Owners.

"Assessed Past Green Transition Costs" means, in respect of a Measurement Date, the aggregate of the imputed costs of the Green Generation Initiative (expressed as an equivalent to current dollars), as reflected in the calculation of the Green Costs Adjustment, which have been charged to Retail Customers through the Global Adjustment on or prior to the Measurement Date.

"Attribution Methodology"[5][2] means the methodology specified in the Fair Allocation Plan for allocating the Period Transition Charges for a Reference Period to ~~the~~ individual ~~Ratepayers~~Retail Consumers of the applicable ~~Ratepayer~~Retail Consumer Group based on its Allocation Factor.

~~"Bypass Charge" means [To be developed].~~[6]

"Collected Amount Adjustment" means, in respect of a ~~Reference~~True-Up Period, the amount (which may be a negative amount) calculated by the Servicer or the ~~Administrative~~Financial Services Agent, as applicable, equal to (a) the Estimate of the

[4] ~~Consider basing~~[1] Confirm that this will be based on forecast volumes of demand (like RPP). To the extent amounts do not get recovered due to differences between forecast and actual, those ~~would~~may be identified and ~~rolled into~~caught by the True-Up.

[5] ~~A key question will be how the overall costs will be spread across the rate base. For example, the~~[2] This allocation may be volumetric ~~or not,~~ or some combination of a flat amount and a volumetric charge. ~~This will also impact any discussion regarding any bypass (e.g., grid exit) charge in connection with the bypass discussion~~Further discussion is required. H&W has raised a concern regarding possible adverse changes after the fact and rating agency considerations. Consider whether hard-coding in the legislation makes sense.

[6] ~~Consideration needs to be given to any amount that will be charged to a ratepayer who successfully bypasses (e.g., leaves the grid). In allocating Transition Charges, considerations would include whether to reserve Bypass Charges and spread them over the life of the program, and correspondingly how to factor those into the calculation of Transition Charges.~~

Finance Amount for the True-Up Period, minus (b) the sum of all Transition Charge Collections for the True-Up Period.~~7~~[3]

"Collective Rights Agreement" means an agreement among all of the Regulatory Asset Owners (including each Absolute Assignee) and each Pledgee that governs the enforcement of their respective rights and interests in, to and under the Regulatory Asset on a coordinated and collective basis.[4]

"Delegate" means the person or persons designated in writing from time to time by the Minister of Energy to undertake the actions and perform the responsibilities ascribed to the "Delegate" under this Act.

"Disposition" means an assignment, transfer, conveyance, sale, contribution, set-over, exchange or other disposition of ~~all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of a Regulatory Asset Owner's right, title and interest in, to and under the Regulatory Asset~~an Investment Interest to an Absolute Assignee pursuant to a Disposition Document.

"Disposition Document" means the agreement, deed, conveyance, instrument or other document under which a Regulatory Asset Owner effects a Disposition to an Absolute Assignee.

"Electricity Distributor" means, in respect of a Service Area, the rate regulated distributor licensed ~~by the OEB~~under Part V of the *Ontario Energy Board Act, 1998* in respect of such Service Area, together with and its successors.

"Electricity Distributor Remittances" means, for an Electricity Distributor on a Remittance Date, all Transition Charge Collections received or deemed to be received by the Electricity Distributor prior to the Remittance Date and that have not otherwise been remitted to IESO or if applicable the Alternative Collection Agent in accordance with Section 5(3) , including the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article 5.

"Electricity Invoice" means an invoice issued by ~~an~~any of a Electricity Distributor (or in its stead, by an Alternative Servicer)~~ or~~, by the Servicer or by a Retailer, in each case to a Retail Consumer that is served by the Electricity Distributor's distribution system in respect of electricity charges, including the cost of electricity, delivery and regulatory charges and related services and amounts incurred, assessed or charged in respect of connectivity to a distribution network in the Electricity Distributor's designated Service Area and in respect of applicable Transition Charges to be charged to the Retail Consumer under this Act.

"Estimate" means~~,~~ (a) in relation to costs, expenses or payments in respect of Funding Obligations or any Finance Amount for a Reference Period, the estimated amount of such costs, expenses or payments determined by the ~~Administrative Agent~~Financial Services Agent; and (b) in relation to an assessment of the benefits of the Green Generation Initiative to any Retail Consumer Group, the estimated value (in current

[3] This would pick up adjustments based on actual collection experience, changes in the ~~Consumer Base~~retail consumer base, changes in the actual costs (versus earlier estimates) included in the Transition Charge calculation, etc.

[4] Consider adding the Financial Services Agent and the Servicer as parties.

dollars) of such benefits determined by the Delegate, in each case having regard to the applicable principles and parameters set out in Schedule 1, which estimated amounts shall be determinative as the applicable estimate for the purposes of this ~~Part in~~Act except to the ~~absence~~extent of a manifest calculation error.

"~~Fair Allocation Plan" [has the meaning given in Article 1].~~Estimated Future Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that are expected to accrue to Retail Consumers from the establishment and implementation of the Green Generation Initiative during the period from the Measurement Date to the Program-End Date.

"Estimated Past Green Transition Benefits" means, in respect of a Measurement Date, the Estimate set forth in the Fair Allocation Plan prepared in accordance with Article 7 of the aggregate value (measured in current dollars) of the benefits that have accrued to Retail Consumers from the establishment and implementation of the Green Generation Initiative up to and including the Measurement Date.

"Fair Allocation Plan" has the meaning given in Article 1.

"Finance Amount" means, ~~in respect of~~for a Reference Period in respect of an Absolute Assignee, the sum (without duplication) of the following amounts ~~for~~that are or become payable during the Reference Period in respect of the Absolute Assignee: (a) Repayments; (b) Funding Costs; (c) Redemption Amounts; (d) Finance Reserve Deposits; and (e) Additional Funding Charges.~~"Finance Receipts" means, for a Reference Period, all amounts received by or on behalf of the Regulatory Asset Owners during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Regulatory Asset Owners under derivatives and any withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to a Funding Obligation.~~

"Finance Reserve Deposits" means, for a Reference Period, the amount by which (a) deposits made or to be made during the Reference Period in order to pre-fund, collateralize, over-collateralize or establish reserves for the ultimate payment of Funding Obligations or for related contingencies specified in the Financing Plan, exceed (b) any Finance Reserve Withdrawals.

"Finance Reserve Withdrawals" means, for a Reference Period, the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan.

"Financial Services Agent" means OPG or, following any Replacement Event, such other person or persons who may be appointed as the Financial Services Agent of the

Absolute Assignees under the Financing Plan in compliance with the requirements set out in Schedule 2.[5]

"Financing Entity" means an entity established in accordance with the Financing Plan to acquire all or an interest in the Regulatory Asset as an Absolute Assignee and to enter into Funding Obligations to finance such acquisition.[8] under the Financing Plan.[6]

"Financing Plan" means the written plan [prepared by the Administrative Agent]Financial Services Agent on behalf of each Absolute Assignee in compliance with Article 89 to set forth the basis upon which, among other things: (a) any Disposition may be made to, financed by or effected by an Absolute Assignee; (b) any Funding Obligations may be incurred in order to fund a Funding Shortfallby an Absolute Assignee, including any Refinancing; (c) any Pledge may be given or effected; (d) any Funding Obligations may be redeemed, prepaid, repurchased, amended or otherwise effected; (e) any obligations for Additional Funding Charges may be incurred and paid; (f) any Repayments, Funding Costs and Redemption Amounts may be paid or provided for; (g) any Finance Reserve Deposits may be made; (h) any Finance Reserve Withdrawals may be made; (i) the establishment and operation of any Financing Entity may be effected; and (ij) the cash flows arising from time to time or otherwise derived from the Regulatory Assetan Investment Interest may otherwise be applied, as the same may be amended, amended and restated or terminated by the Financial Services Agent in compliance with Article 9 from time to time.

"Funding Costs" means, for a Reference Period in respect of an Absolute Assignee, the amount by which (a) the aggregate of all interest and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Regulatory Asset OwnerAbsolute Assignee during the Reference Period in respect of allits Funding Obligations, including any standby commitment fees or charges paid to any lender, credit enhancement fees or charges paid to any credit enhancer, liquidity fees or charges paid to any liquidity provider, amounts (including any termination payments) paid under derivatives and any deposit amount made or required to fund or replenish a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to aits Funding ObligationObligations, exceeds (b) the aggregate of all Finance Receiptsamounts received by or on behalf of the Absolute Assignee during the Reference Period in respect of a Funding Obligation, including from any reimbursement of standby commitment fees or charges paid by a lender, any reimbursement of credit enhancement fees or charges paid by any credit enhancer, any reimbursement of liquidity fees or charges paid by any liquidity provider, any amounts (including any termination payments) paid to the Absolute Assignee under derivatives and any Finance Reserve Withdrawal made or required to be made from a debt service reserve account or other account established under any indenture, ancillary agreement or other financing document relating to the payment of the Funding Costs payable in respect of a Funding Obligation for the Reference Period.

[5] Discuss whether to accommodate multiple Financial Services Agents. MOE to consider.

[8] OPG has suggested[6] MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the *Electricity Act* (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the *Income Tax Act* (Canada) or the *Taxation Act, 2007* Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act. These raise issues for consideration by the stakeholders.

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including each obligation to pay: principal, interest, premiums and other financing ~~charges, indebtedness,~~charge payments; pass-through payments; payment obligations arising under or in respect of derivatives~~,~~; payment obligations owing to service providers, ~~administrative agents~~Financial Services Agents, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all ~~taxes payable in connection with the foregoing)~~Additional Funding Charges incurred by or on behalf of ~~a Regulatory Asset Owner~~the Absolute Assignee under the Financing Plan ~~in order to fund a Funding Shortfall for a Reference Period~~, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.[9]

~~"Funding Shortfall" means, for a Reference Period, (a) the amount, if any, by which (i) the IESO Power Contract Net Payment for the Reference Periods, exceeds (ii) the GA Power Contract Contribution for Reference Period, minus (b) the IESO Applied Surplus for the Reference Period.~~[10]Future Fair Share of Green Transition Benefits" means, in respect of a Measurement Date, the sum of (a) the Over-Assessed Amount; and (b) the Estimated Future Green Transition Benefits, in each case as of the Measurement Date.

~~"GA Power Contract Contribution" means, for a Reference Period, the aggregate of the payments to be made by the applicable Ratepayer Group in respect of the portion of the Global Adjustment [attributable to the Power Contracts] in accordance with the Fair Allocation Plan.~~[11]

"Generator" means a generator of electricity that is subject to ~~[this~~the *Electricity Act*~~]~~[12]~~.~~, *1998*.

"Global Adjustment" ~~means the amount calculated from time to time under [Section • of the *Electricity Act*], which includes among other things an amount determined in respect of the costs associated with the Green Generation Initiative, including amounts attributable to the Power Contracts.~~[13]has the meaning given in Article 1.

"Green Costs Adjustment" has the meaning given in Article 1.

"Green Generation Initiative" ~~[~~has the meaning given in Article ~~1]~~.1.

~~[9] OPG has asked whether this should include IESO finance arrangements.~~

~~[10] Consider whether to simplify by referring to the calculations of GA, with vs. without Fair. The issue would be that Fair is then linked into the GA calculation specifically, rather than to the specific assets that are subject to revised amortization under Fair. The constitutional position requires a clear nexus to the assets. Also, confirm whether RPP forecasting variances are to be included.~~

~~[11] IESO to confirm its ability to allocate a shortfall in a given month between what it receives and what it owes under the GA, in order to calculate (a) existing volume-based variances which are rolled into subsequent month GA and trued-up every 6 months under RPP, (b) existing variances attributable to OREC which are funded by the Province, and (c) new variances attributable to Fair Hydro program.]~~

~~[12] Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*. "Generator is a defined term in other legislation (OEB Act, Electricity Act) so this should ultimately be a distinct term such as "FH Generator" to avoid confusion.~~

~~[13] Note that if adjustments for Fair Hydro program are to be applied after existing GA adjustments, then this may need a new name (such as "FH Adjustment").~~

"IESO" means the Independent Electricity System Operator created pursuant to ~~[insert].~~Part II of the *Electricity Act, 1998*.

"IESO ~~Applied Surplus~~Available Amount" means, for a Reference Period, the lesser of (a) the amount~~,~~ (if any~~,~~) by which (i) the ~~IESO Power Contract Net Payment~~Maximum Transition Charge Amount for the Reference Period, exceeds (ii) ~~the GA Power Contract Contribution~~Period Finance Amount for the Reference Period, and (b) the IESO ~~Unapplied Surplus on the last day of the immediately preceding Reference Period.~~ Retained Interest Amount as of the [35th] day prior to the first day of a Reference Period plus any IESO Financing Costs that are due and payable and remain unpaid as of the [35th] day prior to the first day of a Reference Period.

"IESO Electricity Distribution Receipts" means, for a month, the sum of all amounts payable by Electricity Distributors to IESO during the month pursuant to section • of the *Electricity Act*.

"IESO Financing Costs" means, for a Reference Period, the financing costs (if any) incurred by IESO pursuant to Section 8(4) in order to finance its ownership of the IESO Retained Interest during the Reference Period.

"IESO Funding Shortfall" means, for a month, the amount, if any, by which (a) the IESO Electricity Distribution Receipts that would be payable to IESO for the month if determined without regard to this Act and without regard to the changes made to section 25.33 of, and O.Reg. 429/4 under, the *Electricity Act* with respect to the Global Adjustment concurrently with this Act, exceeds (b) the IESO Electricity Distribution Receipts payable to IESO for the month[7]; provided that if the amount of any such shortfall is determined to have been based on incomplete information, variances or estimates that were inaccurate, an adjustment shall be made in determining the amount of any subsequent shortfall for the month in which the inaccuracy is identified.

"IESO ~~Power Contract Net Payment" means, for a Reference Period, the amount by which (a) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period.~~Recovery" means each amount remitted to IESO (including by IESO retaining such amount) in respect of the IESO Retained Interest pursuant to Section 5(6)(b), and "IESO Recoveries" means, collectively, all such amounts received by IESO.

~~"IESO Power Contract Net Receipt" means, for a Reference Period, the amount by which (a) the sum of amounts payable by the Generators to IESO under all Power Contracts for the Reference Period, exceeds (b) the sum of amounts payable by IESO to the Generators under all Power Contracts for the Reference Period.~~

"IESO Remittances" means, for a Settlement Date, all Electricity Distributor Remittances received by IESO or if applicable the Alternative Collection Agent prior to the Settlement Date and that have not otherwise been remitted to the Regulatory Asset Owners (each with respect to its Regulatory Asset) in accordance with Section 5(6), including the proceeds of any enforcement action undertaken by IESO or if applicable the Alternative

[7] This has been recast to recognize that the shortfall in the first 4.5 years could exceed the entire GA amount. A more refined approach to describing the concept may be considered.

Collection Agent to recover payment of amounts payable by Electricity Distributors to IESO in accordance with Article 5.

"IESO ~~Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for [managing the Province's power system].~~Retained Interest" means IESO's right, title and ownership interest (if any) in, to and under the Regulatory Asset, which shall exclude each Investment Interest.

"IESO Retained Interest Amount" means, on a day, (a) the sum of all IESO Funding Shortfalls incurred prior to the day, plus (b) the sum of all IESO Funding Costs incurred prior to the day in accordance with Section 8(4), minus (c) the net proceeds received by IESO from or on behalf of each Absolute Assignee as consideration for the Disposition of each Investment Interest paid to IESO by or on behalf of such Absolute Assignee prior to the day, and minus (d) the IESO Recoveries received by IESO prior to the day.

"IESO Successor" means the entity appointed by the Province to succeed to the rights and obligations of IESO as the entity responsible for managing the Province's electricity system.

"Investment Interest" means an ownership interest in, to or under the Regulatory Asset that is acquired by an Absolute Assignee pursuant to a Disposition, which ownership interest may include (without limitation) ownership of a specified portion on a divided basis of the assets comprising the Regulatory Asset and ownership of an undivided ownership interest in the Regulatory Asset, in each case as may be described in the applicable Disposition Document.

"Investment Remittance" means, for a month, the lesser of (a) the aggregate amount of all IESO Remittances for the month, and (b) the sum of the Finance Amounts due and payable by all Absolute Assignees in respect of the month.

"Maximum IESO Recovery" means, for a month, the amount (if any) by which (a) the IESO Remittances for the month, exceed (b) the sum of all Finance Amounts that are due and payable by Absolute Assignees in respect of the month.

"Maximum Transition Charge Amount" means, for a Reference Period, (a) the aggregate amount of Future Fair Share of Green Transition Benefits that are allocable to the applicable Retail Consumer Group in accordance with the Fair Allocation Plan, divided by (b) the applicable Reference Period Length.

"Measurement Date" means [Insert relevant date around the Legislation Implementation Date] and any other date specified as such under the Fair Allocation Plan.

"OEB" means the Ontario Energy Board, together with its successors.

"OPG" means the corporation incorporated as Ontario Power Generation Inc. under the *Business Corporations Act* on December 1, 1998, together with its successors.

"~~IESO Unapplied Surplus" means, at a particular time, the amount, if any, by which (a) the sum of (i) all IESO Power Contract Net Receipts for Reference Periods occurring prior to the time, and (ii) all GA Power Contract Contributions for Reference Periods occurring prior to the time, exceeds (b) the sum of (i) all IESO Power Contract Net~~

~~Payments for Reference Periods occurring prior to the time, and (ii) all IESO Applied Surpluses for Reference Periods occurring prior to the time.~~ Over-Assessed Amount" means, in respect of a Measurement Date, the amount (if any) by which (a) the Assessed Past Green Transition Costs, exceeds (b) the Estimated Past Green Transition Benefits, each as determined as of the Measurement Date.

"Period ~~Transition Charge~~Finance Charges" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount and (b) the True-Up Amount in respect of the immediately preceding Reference Period.

"Period Transition Charges" means, for a Reference Period, the sum of (a) the Period Finance Charges for the Reference Period and (b) the IESO Available Amount for the Reference Period.

"Pledge" means, in respect of an Investment Interest of an Absolute Assignee, a lien, mortgage, charge or security interest granted to or in favour of a Pledgee by ~~a Regulatory Asset Owner~~the Absolute Assignee in, to and over all or a specified portion (including a specified portion on a divided basis or by way of an undivided interest) of the ~~Regulatory Asset~~Investment Interest.

"Pledgee" means a person to whom ~~a Regulatory Asset Owner~~an Absolute Assignee grants a Pledge.

"~~Power Contracts" means long-term power contracts entered into by IESO with certain Generators, under which IESO has agreed to pay such Generators amounts, determined in respect of quantities of electricity over specified periods, to the extent that applicable market prices for such quantities of electricity during a specified period are less than specified reference prices for such quantities of electricity, and, correspondingly, Generators have agreed to pay IESO amounts if the market prices for such quantities exceed the applicable reference prices for such quantities.~~[14]Program End Date" means •, [2047].

"Province" means the Province of Ontario.

~~"Ratepayer" means present and future [retail] consumers of electricity [in the Province] who are [RPP][or OREC-eligible] consumers, which shall include all such retail consumers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.~~[15]

[14] ~~Consider expanding to include PPAs that are not contracts for differences. Should this contemplate the possibility of additional or amended power contracts?~~

[15] ~~Need to describe consumers in a fashion that is broad and not weakened by a bypass risk. Consider terminology to align with the description of the eligible customer class provided by the Ministry, e.g., same as OREC-eligible consumers except for consumers served by Independent Power Authorities (who do not pay GA). Also, consider use of the word "retail", to avoid limiting to customers of retailers and confirm removal of reference to transmission-connected customers.~~

"Ratepayer Group" means, in relation to a Reference Period, the Ratepayers who receive Electricity Invoices[16] during the Reference Period.

"Redemption Amount" means the amount payable by or on behalf of a Regulatory Asset Owneran Absolute Assignee to redeem, prepay or repurchase a Funding Obligation incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.

"Reference Period" means (a) the period from (and including) the [Legislation ImplementationMeasurement Date] to (and including) June 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

"Reference Period Length" means, for a Reference Period, the number of months in the Reference Period.

"Refinancing" means that a, in respect of a Funding Obligation incurred by or on behalf of an Absolute Assignee, that the Funding Obligation is repaid or repurchased for cancellation by or on behalf of a Regulatory Asset Ownerthe Absolute Assignee by applying the net proceeds obtained by the Regulatory Asset OwnerAbsolute Assignee incurring one or more other Funding Obligations.

"Regulatory Asset" means the property rightrights and interestinterests described in Section 6(1), or if the context requires, a specified portion or undivided interest in such property right and interest that is described in the applicable Disposition Documentwhich collectively is comprised of the IESO Retained Interest and each Investment Interest.

"Regulatory Asset Account" means (a) for an Electricity Distributor, any bank account into which the Electricity Distributor deposits or receives Transition Charge Collections; (b) for the Servicer, any bank account into which the ServicerIESO deposits or receives Transition Charges, Electricity Distributor Remittances or IESO Remittances; and (c) if applicable, for the Alternative Collection Agent, any bank account into which the Alternative Collection Agent deposits or receives Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances.

"Regulatory Asset Owner" means each of (a) IESO, as owner of (and to the extent that it has retained any ownership interest in, to or under the Regulatory Assetof) the IESO Retained Interest and (b) each Absolute Assignee, to the extent that it has acquired and owns any ownership interest (including a specified portion on a divided basis or by way of an undivided interest) in, to or under the Regulatory Assetas owner of its Investment Interest or Investment Interests, and "Regulatory Asset Owners" means collectively all of the Regulatory Asset OwnersIESO and each such Absolute Assignee, who together own the entirety of the Regulatory Asset and are required to exercise their individual rights of ownership in accordance with Section 6(7). For greater certainty, where one Regulatory Asset Owner owns the entirety of the Regulatory Asset, "Regulatory Asset Owners" refers to this Regulatory Asset Owner.

[16] Expand to include eligible consumers who are not customers of Electricity Distributors (e.g., suite-metered customers).

~~"Related Generation Assets" means the [facilities, plants and equipment] constructed, acquired or developed in connection with the Green Generation Initiative.~~

"Related Rights" means~~, with respect to a Regulatory Asset Owner's Regulatory Asset,~~ all rights of any kind (whether in tort, contract or otherwise) that attach or are attendant or incidental to any of the other property rights or interests that comprise such Regulatory Asset.

"Remittance Date" means, in respect of an Electricity Distributor, each day on which it is required to remit Electricity Distribution Remittances to IESO or if applicable the Alternative Collection Agent as specified in accordance with any Funding Obligation or, if no such day is specified in ~~relation to~~accordance with any Funding Obligation, then the Business Day preceding each Settlement Date.

"Repayment Obligation" means an obligation to repay, redeem or repurchase, or to provide for the repayment, redemption or repurchase (including by making a related Finance Reserve Deposit) of, all or a portion of the amount advanced to the ~~Regulatory Asset Owner~~Absolute Assignee under a Funding Obligation.

"Repayment" means a payment by ~~a Regulatory Asset Owner~~an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.

"Replacement Event" means any event specified as such in a Funding Obligation.

"Retail Consumer" means:

(a) present and future consumers of electricity in the Province who are (i) consumers designated under section 79.16 of[, and O.Reg 95/05 under,] the *Ontario Energy Board Act, 1998*, or (ii) hold or are deemed to hold an "eligible account" under the *Ontario Rebate for Electricity Consumers Act, 2016*, other than any such consumer who has a contract with a Retailer who uses Retailer Consolidated Billing; and

(b) present and future Retailers who use Retailer Consolidated Billing,

and each case includes all such consumers and Retailers who are connected, directly or indirectly and whether a customer of an Electricity Distributor or not, to the transmission and distribution system assets located in the Province and who are taking electric delivery service within the Province, whether or not such retail consumers produce their own electricity or purchase electric generation services from a provider of electric generation services other than the owner of the Province's transmission and distribution system assets and whether or not the transmission and distribution system assets continue to be owned or operated by Electricity Distributors or operated by IESO.

"Retail Consumer Group" means, in relation to a Reference Period, the Retail Consumers who receive Electricity Invoices during the Reference Period.

"Retailer" means a person who is licensed under Part V of the *Ontario Energy Board Act, 1998* to retail electricity.

"Retailer Consolidated Billing" has the same meaning as in the *Retail Settlement Code* issued by the Ontario Energy Board.

"Service Area" means, in respect of an Electricity Distributor, the geographic area or region in which it is licensed to distribute electricity in accordance with ~~[this~~the *Electricity Act*[17]~~]~~, *1998*.

"Servicer" means ~~[To be determined]~~IESO or IESO Successor, as agent for and on behalf of the Regulatory Asset ~~Owner [To be determined – collective invoicing agent, and consider expanding].~~Owners, for the purposes set forth in Article 4.

"Settlement Date" means the [last Business Day of any month].

"Transition Charge" means, for a ~~Ratepayer~~Retail Consumer in respect of a Reference Period, ~~the sum of~~ (a) ~~[one sixth] of~~ the Period Transition Charge, (b) multiplied by its Allocation Factor ~~and (b) any Bypass Charge charged to the Ratepayer~~ in respect of the Reference Period, divided by (c) the applicable Reference Period Length.

"Transition Charge Collection" means any amount received or deemed by this ~~Part~~Act to have been received upon the collection of a Transition Charge paid by or on behalf of a ~~Ratepayer~~Retail Consumer, including any proceeds arising from the exercise and enforcement of any related rights and interests under or in respect of the Regulatory Asset.

"True-Up Amount" means, in respect of a Reference Period, the amount (which may be a negative amount) calculated by the ~~Administrative~~Financial Services Agent equal to (a) the Estimate of the Finance Amount for the related True-Up Period, minus (b) the Actual Finance Amount for such related True-Up Period, plus (c) the Collected Amount Adjustment for such related True-Up Period.

"True-Up Period" means, in relation to a Reference Period, the period from and including the [30th] day immediately preceding the first day of the Reference Period, to but excluding the [30th] day immediately preceding the last day of the Reference Period.

"Undertaking of the Lieutenant Governor in Council" means the undertaking of the Lieutenant Governor in Council given under Section ~~10~~11(2).

~~"Unrecovered Transition Costs" means the [unrecovered][unamortized] costs incurred in connection with the creation, adoption and implementation of the Green Generation Initiative, including any negative value of the Power Contracts and [other].~~[18]

Article 3 – Transition Charges

(1) **~~Ratepayer~~Retail Consumer Obligation to Pay a Transition Charge** – Each ~~Ratepayer~~Retail Consumer shall pay each Transition Charge charged to it in any Electricity Invoice issued to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor or by an Alternative Servicer under Section 4(1), in each case on the terms of payment specified in the related Electricity Invoice.

[17] ~~Revise once determine whether this will be a standalone Act or remain part of the *Electricity Act*.~~
[18] ~~Note that this is the term that describes the "asset" that we are amortizing over a longer period of time.~~

(2) **Indebtedness of ~~Ratepayers~~Retail Consumers** – Until paid, a Transition Charge charged to a ~~Ratepayer~~Retail Consumer in an Electricity Invoice shall, together with any applicable late payment fees and finance charges arising under the terms of the Electricity Invoice with respect to such Transition Charge, constitute non-bypassable indebtedness of the ~~Ratepayer~~Retail Consumer to the Regulatory Asset Owners, ~~(~~each with respect to its respective interest in the Regulatory Asset~~)~~. Such indebtedness shall constitute a single and separate[8] debt obligation owing by the ~~Ratepayer~~Retail Consumer, which subject to Article 5 may be enforced independently from any other payment obligation or indebtedness owing by the ~~Ratepayer~~Retail Consumer under the Electricity Invoice or otherwise.~~[19]~~[9]

(3) **No Set-Off or Reduction** – A ~~Ratepayer~~Retail Consumer may not set-off or reduce (by counterclaim, defense or otherwise) the amount payable by it in respect of any Transition Charge, including any set-off against or in respect of any amount owing or becoming payable to such ~~Ratepayer~~Retail Consumer by its Electricity Distributor, any Regulatory Asset Owner or any other person.

(4) **Allocation of ~~Ratepayer~~Retail Consumer Payments** – If an Electricity Distributor receives a payment made by or on behalf of a ~~Ratepayer~~Retail Consumer in respect of amounts due and payable under one or more Electricity Invoices that is less than the total amount payable thereunder, such payment shall be allocated on a *pro rata* basis to the payment of related Transition Charges and other invoiced amounts and the amount so allocated as a payment of related Transition Charges shall be deemed to constitute a Transition Charge Collection.

(5) **Transition Charges are Irrevocable** – The Transition Charges arising under or in respect of Funding Obligations incurred under the Financing Plan (including any adjustments based on modifications to such Funding Obligations made in compliance with the Financing Plan or as a result of amendments to the Financing Plan made in accordance with Section ~~8~~9(3)) are deemed to be irrevocable, final and effective without any further action, ~~in~~except to the ~~absence~~extent of manifest calculation error. For greater certainty, a Transition Charge may include Finance Amounts for a Reference Period whether or not the payment of such Finance Amounts are inconsistent with the Fair Allocation Plan applicable at the time such payments are due and payable, whether or not the related Funding Obligation was properly incurred under the Financing Plan. In no case shall a Funding Obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan.

[8] Determine if this is critical for rating and markets. Logistics under consideration.

~~[19] Torys suggests that we not create a debtor/creditor relationship between ratepayers and regulatory asset owners. Instead, ratepayers would only have relationships with electricity distributors and the Fair program would rely on consumers paying distributors and distributors to collecting those amounts and remitting them to IESO. The current draft goes further to bridge the investors more directly with ratepayers. There are differences in the approaches, including reliance from a credit perspective on the LDCs (rather than an ability to replace the individual LDCs with the investors choice). This depends on the credit analysis, and comfort that a later requirement will not be accommodated without a change in the legislation.~~[9] Torys has also suggested that deemed conditions of licenses for distributors, retailers and unit sub-metering providers, could be included as conditions, to require them to collect and remit amounts in accordance with this legislation. ~~Consideration should be given to whether that achieves the same direct relationship and whether the effectiveness of the current regulatory licensing regime should be suggested as the basis~~Consider if it is helpful to integrate the existing regulatory scheme for ~~a market based credit decision.~~invoicing and collections (regarding RPP) in the legislation.

~~(6) [Anti-avoidance; No-by-pass – Transition Charges charged to a Ratepayer in respect of any Finance Amount incurred under with the Financing Plan applicable at the time the related Funding Obligation was incurred may not be avoided and shall be [non-by-passable].]~~

Article 4 – Invoicing of Transition Charges[20]

(1) **Inclusion of Transition Charges in Electricity Invoices** – Each Electricity Distributor and if applicable any Alternative Servicer shall, as an agent of the Regulatory Asset Owners, specify the Transition Charge to be charged to a ~~Ratepayer~~Retail Consumer pursuant to Section 4(4) in respect of a related Reference Period in each Electricity Invoice issued by the Electricity Distributor or if applicable by the Alternative Servicer to the ~~Ratepayer~~Retail Consumer in respect of such Reference Period. Upon the inclusion of a Transition Charge in an Electricity Invoice, the obligation to pay such amount shall be binding on the applicable ~~Ratepayer~~Retail Consumer.

(2) **Calculation of the Period Transition Charge** – Not later than [35] days prior to the first day of a Reference Period, each ~~Regulatory Asset Owner~~Absolute Assignee (or the ~~Administrative~~Financial Services Agent on its behalf) shall provide the ~~Servicer~~OEB with written notice of each Estimate of a Finance Amount payable by it or on its behalf in respect of the Reference Period. [35] days prior to the first day of a Reference Period, IESO or Successor IESO if applicable shall specify the IESO Retained Interest Amount and any IESO Financing Costs that are due and payable and remain unpaid on such day. Not later than one month prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~[21]OEB shall calculate the Period Transition Charge applicable to the Reference Period based on the calculations and information set forth in such written notices received from the ~~Regulatory Asset Owners, which~~Absolute Assignees and based on such amounts specified by IESO or Successor IESO, which calculations, information and amounts shall be determinative ~~in~~, except to the ~~absence~~extent of manifest calculation error or misstatement.

(3) **Calculation and Attribution of Transition Charges** – Not later than 25 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall apply the Attribution Methodology to determine the Allocation Factor for each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group.

(4) **Notice of Transition Charges** – Not later than 20 days prior to the first day of a Reference Period, the ~~Servicer or if applicable the Alternative Servicer~~OEB shall inform each Electricity Distributor and if applicable any Alternative Servicer of the Transition Charges to be specified in the Electricity Invoices to be issued to each ~~Ratepayer~~Retail Consumer of the applicable ~~Ratepayer~~Retail Consumer Group who has a billing address in the Electricity Distributor's Service Area.

(5) **Adjustments** – The amount of any Transition Charge charged to a ~~Ratepayer by the Servicer~~Retail Consumer and specified as such in an Electricity Invoice shall be

[20] ~~Details concerning Invoicing of Transition Charges (Article 4) and Collections and Remittances (Article 5) are complex. Consider how much of this can be addressed through regulations, or if acceptable based on existing OEB license conditions/codes, IESO market rules/manuals, etc.~~

[21] ~~Should this be a designated government official, rather than an agent appointed by investors?~~

determinative of the amount of indebtedness created thereby and owing in respect of such Transition Charge, ~~in~~except to the ~~absence~~extent of any manifest calculation error.

(6) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 4 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 4 to impose, attribute, charge, bill and invoice the Transition Charges.

(7) **IESO Successor** – Any IESO Successor shall be bound by the requirements of Article 4 and shall perform and satisfy all duties and obligations of IESO under Article 4 in the same manner and to the same extent as IESO, including the obligation to calculate and provide notice of Transition Charges.

(8) **Appointment of an Alternative Servicer** – If a Replacement Event occurs in respect of any Electricity Distributor, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Servicer to perform some or all of the obligations and duties required to be undertaken by such Electricity Distributor under this Article 4, as and to the extent specified in such appointment. Upon acceptance of such appointment, the Alternative Servicer shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor. Any Electricity Distributor that is replaced under this Section 4(8) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in the performance of such obligations and duties to the Alternative Servicer and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Servicer to perform such obligations and duties on behalf of the Regulatory Asset Owners.

(9) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Servicer, Alternative Servicer or any other person who may be authorized to issue Electricity Invoices to ~~Ratepayers~~Retail Consumers for a failure to impose, attribute, charge, bill or invoice Transition Charges. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure.[22]

(10) **No Set-Off or Reduction –** No Servicer or Electricity Distributor may set off or reduce (by counterclaim, defence or otherwise) the amount payable by it pursuant to this Article 4.

(11) **Regulations** – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor~~,~~ or any Alternative Servicer ~~or any [Alternative Collection Agent]~~ to ensure that Transition Charges are properly charged to ~~Ratepayers~~Retail Consumers and specified as such in Electricity Invoices.

[22] ~~Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Article 5 – Collections and Remittances

(1) **Duty to Collect as Agent** – Electricity Distributors or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable][10] efforts~~]~~ to collect amounts owing by ~~Ratepayers~~Retail Consumers in respect of Transition Charges charged to such ~~Ratepayers~~Retail Consumers in Electricity Invoices issued by the Electricity Distributor or if applicable such Alternative Collection Agent.

(2) **Segregation of Transition Charge Collections** – An Electricity Distributor or if applicable any Alternative Collection Agent shall promptly segregate Transition Charge Collections from other payments received by it from ~~Ratepayers~~Retail Consumers and deposit such Transition Charge Collections into its Regulatory Asset Account.[11] Prior to and following a deposit of Transition Charge Collections having been made into its Regulatory Asset Account, the Electricity Distributor or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(3) **Electricity Distributor Remittances** – On each ~~[~~applicable Remittance Date~~]~~, an Electricity Distributor shall remit all Transition Charge Collections received by it from ~~Ratepayers~~Retail Consumers in respect of the related Reference Period to or to the account of IESO or if applicable the Alternative Collection Agent.

(4) **Duty to Collect Electricity Distributor Remittances** – IESO or if applicable any Alternative Collection Agent shall, as an agent of the Regulatory Asset Owners, undertake [diligent][reasonable] efforts to accept and collect Electricity Distributor Remittances from Electricity Distributors and Transition Charge Collections from ~~Ratepayers~~Retail Consumers that pay their Electricity Invoices directly to ~~the Servicer.~~[23]IESO.[12]

(5) **Segregation of Electricity Distributor Remittances** – IESO and if applicable the Alternative Collection Agent shall ~~[~~promptly~~]~~ segregate Electricity Distributor Remittances from other payments received or held by it and deposit such Electricity Distributor Remittances into its Regulatory Asset Account. Prior to and following a deposit of Electricity Distributor Remittances having been made into its Regulatory Asset Account, IESO or if applicable any Alternative Collection Agent shall hold such amounts in trust for ~~each~~the Regulatory Asset ~~Owner~~Owners.

(6) **IESO Remittances** – On each ~~[~~Settlement Date~~]~~[24][13], IESO and if applicable the Alternative Collection Agent shall remit all amounts on deposit in its Regulatory Asset Account (a) first, to or to the account of the ~~Regulatory Asset Owner~~Absolute Assignees an amount equal to the Investment Remittance for the related month and (b) second, to IESO (including by IESO retaining such amount) an amount equal to the lesser of (i) the Maximum IESO Recovery for the related month and (ii) the IESO Retained Interest Amount as of the Settlement Date.

[10] Mirror collection "standard of care" under applicable legislation.
[11] Consider trying to attach to existing LDC credit enhancements and provide parallel coverage for customer losses.
~~[23]~~[12] Consider building this obligation into a deemed condition of licence for the IESO.
~~[24]~~[13] Consider frequency of remittances in light of rating requirements. US rating agencies favour daily remittances.

(7) **Successors of Electricity Distributors** – Any successor of an Electricity Distributor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of such Electricity Distributor under Article 5 in the same manner and to the same extent as such Electricity Distributor, including the obligation under Article 5 to collect Transition Charges and make remittances of Electricity Distributor Remittances.

(8) **~~Successors of~~ IESO Successor** – ~~Any successor of~~ IESO Successor shall be bound by the requirements of Article 5 and shall perform and satisfy all duties and obligations of IESO under Article 5 in the same manner and to the same extent as IESO, including the obligation to collect Transition Charge Collections, Electricity Distributor Remittances and to remit IESO Remittances.

(9) **Owners of Distribution Assets** - If any person other than an Electricity Distributor acquires distribution system assets in the Province or invoices or collects electricity distribution rates in the Province~~25~~14, then such person shall, if requested by the ~~Regulatory Asset Owners~~Absolute Assignees, be obligated to act diligently to (a) facilitate the invoicing and collection of any Transition Charges applicable to ~~Ratepayers~~Retail Consumers in its applicable service area, including all consumers connected to the electricity distribution system assets and taking electric delivery service located within such service area; (b) allocate partial payments by ~~Ratepayers~~Retail Consumers as provided in this ~~Part; (c) terminate service to non-paying Ratepayers on the same basis as termination of service is permitted for non-payment of electricity transmission and distribution rates; (d~~Act; (c) exercise all enforcement rights of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees for the benefit of ~~a Regulatory Asset Owner or Pledgee~~an Absolute Assignee; and (~~e~~d) remit any Transition Charge Collections to the ~~Regulatory Asset Owner or Pledgee~~Absolute Assignees or Pledgees, as applicable, each in accordance with its ~~Regulatory Asset~~Investment Interest.

(10) **~~Regulatory Asset Owners~~Absolute Assignees have Standing** – The ~~Regulatory Asset Owners and any Pledgee~~Absolute Assignees, acting together in accordance with the Collective Action Agreement, may bring actions against any Electricity Distributor, IESO, the Alternative ~~Servicer~~Collection Agent, any owner of electricity distribution system assets in the Province or any other person who may be authorized to collect electricity distribution and use charges from ~~Ratepayers~~Retail Consumers for a failure to collect Transition Charges, remit or collect Electricity Distributor Remittances or remit IESO Remittances, as and to the extent applicable under Article 5. Any court of the Province ~~[and the OEB]~~ shall have jurisdiction over any actions brought before it by the ~~Regulatory Asset Owners~~Absolute Assignees in relation to any such failure. ~~26~~

(11) **Appointment of an Alternative Collection Agent** – If a Replacement Event occurs in respect of any Electricity Distributor or IESO, the ~~Regulatory Asset Owners~~Absolute Assignees shall, in accordance with the Collective Rights Agreement, be permitted, by an instrument in writing, to appoint an Alternative Collection Agent to perform some or all of the collection, segregation and remittance obligations otherwise required to be undertaken by such Electricity Distributor or IESO, as applicable, under Article 5, as and to the extent specified in such appointment. Upon acceptance of such appointment, the

~~25~~14 This is in anticipation of a possible future restructuring of the distribution system. ~~Also, this would cover any OREC-eligible customer (market participant) of IESO.~~

~~26 Consider having such matters first go through the OEB, particularly if the obligation to bill, collect or remit is deemed to be a condition of license for distributors, IESO, retailers and unit sub-metering providers, which would be enforceable provisions under the OEB Act and within OEB jurisdiction to enforce.~~

Alternative Collection Agent shall become obligated to perform such assumed obligations in replacement of such Electricity Distributor or IESO, as applicable. Any Electricity Distributor or IESO, as applicable, that is replaced under this Section 5(11) shall promptly transfer all rights, powers, privileges and property interests in its possession or within its control in, to and over the Regulatory Asset, including its Regulatory Asset Account, to the Alternative Collection Agent and shall take such further actions, including the execution of instruments, necessary to give full and final effect to such transfer and to permit the Alternative Collection Agent to enforce the Regulatory Asset on behalf of the ~~Regulatory Asset Owners~~Absolute Assignees.

(12) **No Set-off, etc.** - The Regulatory Asset, including rights in Transition Charges, Transition Charge Collections, and the interests of a Regulatory Asset Owner, an Absolute Assignee and a Pledgee therein, may not be setoff or reduced (including by counterclaim, surcharge or defense) by any ~~Ratepayer~~Retail Consumer, any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or in connection with any default, bankruptcy, reorganization or other insolvency proceeding of any Electricity Distributor, IESO, Alternative Collection Agent or any owner of distribution system assets in the Province, any affiliate or successor thereof or any other entity or otherwise.~~27~~15

(13) **Sequestration** – If any Electricity Distributor, IESO, the Alternative Collection Agent or any owner of distribution system assets in the Province or any other person or entity authorized to collect Transition Charges, defaults on any required remittance of Transition Charge Collections, Electricity Distribution Remittances or IESO Remittances under Article 5, any court in the Province, upon application by ~~the Regulatory Asset Owners or Pledgee~~and of the Absolute Assignees acting collectively under the Collective Action Agreement and without limiting any other remedies otherwise available to the ~~applying party~~Absolute Assignees or Pledgees, shall order the sequestration and payment of the Transition Charge Collections, Electricity Distribution Remittances and IESO Remittances, as applicable, for the benefit of the ~~Regulatory Asset Owners or Pledgee~~Absolute Assignees, each with respect to its ~~Regulatory Asset.~~ Investment Interest, and the Pledgees as applicable.[16]

(14) Regulations – Regulations may be enacted for the purpose of specifying further rights, powers, privileges, duties and obligations that shall apply to IESO, any Electricity Distributor or any Alternative Collection Agent to ensure that rights, interests, entitlements, benefits and proceeds in, to, under and from the Regulatory Asset are of fully realized by ~~the Regulatory Asset Owner~~some or all of the Absolute Assignees and Pledgees.

Article 6 – The Regulatory Asset

(1) **Composition** – The Regulatory Asset shall constitute ~~an existing, present~~a current and irrevocable property right and interest consisting, collectively, of the following rights and interests ~~of a Regulatory Asset Owner in the following~~ (without duplication):

~~27~~15 Consider whether it makes sense to create a "deemed collection" payment obligation on Electricity Distributors to the extent a ~~Ratepayer~~Retail Consumer reduces its payment of Transition Charges, despite this language~~, and same~~. Same for Electricity Distributor Remittances and IESO Remittances.

[16] Consider adding or substituting this provision for a right to appoint a receiver.

a. the right of ~~a Regulatory Asset Owner to record its portion of the Regulatory Asset in its accounts~~IESO (i) to record its IESO Retained Interest in its accounts in accordance with Section 8(1), having a stated amount from time to time equal to the IESO Retained Interest Amount; and (ii) to receive IESO Recoveries from time to time in accordance with Section 5(6)(b);

b. the right to impose, bill, invoice, collect and receive Transition Charges from ~~Ratepayers~~Retail Consumers, including the right to determine the amount of Transition Charges in accordance with this ~~Part~~Act;

c. the right to enforce the obligations and indebtedness of each ~~Ratepayer~~Retail Consumer to pay the Transition Charges charged to the ~~Ratepayer~~Retail Consumer from time to time in accordance with Article ~~2~~,3, together with all related late payment fees or interest charges arising in respect thereof under the related Electricity Invoices;

d. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Servicer to impose, attribute, charge, bill and invoice the Transition Charges in accordance with Article 4;

e. the right to enforce the duties and obligations of each Electricity Distributor and if applicable the Alternative Collection Agent to collect, receive and remit amounts received by it in respect of Transition Charges as Electricity Distributor Remittances to or to the account of IESO or if applicable the Alternative Collection Agent in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by the Electricity Distributor or if applicable the Alternative Collection Agent to recover payment of Transition Charges in accordance with Article ~~4~~5;

f. the right to enforce the duties and obligations of IESO and if applicable the Alternative Collection Agent to collect and receive Electricity Distributor Remittances and to remit IESO Remittances to or to the accounts of the Regulatory Asset Owners, each with respect to its respective interest in the Regulatory Asset, in each case in accordance with Article 5, including all collections and the proceeds of any enforcement action undertaken by it to recover payment of Electricity Distributor Remittances in accordance with Article ~~4~~5;

g. the right to receive and collect all Transition Charge Collections, all Electricity Distributor Remittances and all IESO Remittances in accordance with Article 5;

h. all rights and entitlements under each Regulatory Asset Account and all amounts on deposit in any such Regulatory Asset Account;

i. all Related Rights; and

j. all revenue, collections, claims, payments, money and proceeds of or derived from the rights described in (a) through (i), regardless of whether such revenue, collections, claims, payments and proceeds are imposed, invoiced, collected and maintained together with or commingled with other revenue, collections, claims, payments, money and proceeds.

A Regulatory Asset and the property rights and interests therein shall exist whether or not Transition Charges have been imposed, charged, invoiced, accrued or collected and notwithstanding that the imposition, attribution, invoicing and collection of Transition Charges will depend on further actions that may not have occurred.

(2) **Validity of Dispositions** – Despite any limitations or restrictions on a Disposition that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Disposition that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Disposition by ~~a Regulatory Asset Owner~~IESO to an Absolute Assignee made under the Financing Plan ~~pursuant to a Disposition Document~~, or by one Absolute Assignee to another Absolute Assignee made under the Financing Plan, shall be permitted and when made shall be valid and enforceable in accordance with ~~its~~the terms of the related Disposition Document and shall be effective to confer upon the Absolute Assignee thereof a valid property right and interest in, to and under the ~~Regulatory Asset~~applicable Investment Interest (or relevant portion thereof) in accordance with the terms of such Disposition, provided that the parties to the applicable Disposition Document have expressly stated therein that such Disposition is a sale or other absolute transfer. Without limiting the foregoing, any Disposition that by its terms is intended to constitute a sale or absolute transfer shall be treated for all purposes as a true sale and absolute transfer of the Regulatory Asset Owner's applicable right, title, and interest in, to and under the Regulatory Asset (or relevant portion thereof), and not merely as a Pledge thereof~~. [A Disposition shall not be subject to recharacterization or challenge on any other basis and the validity of a Disposition shall not be affected or impaired by: (a) the commingling of Transition Charge Collections or other proceeds from Transition Charges with other amounts; (b) the retention of any interest (including any partial, residual or subordinated interest, whether direct or indirect) in the Regulatory Asset by the transferring Regulatory Asset Owner; (c) any right to repurchase the Regulatory Asset in favour of the transferring Regulatory Asset Owner; (d) any recourse that an Absolute Assignee may have against the transferring Regulatory Asset Owner; (e) any indemnification rights or obligations provided by the transferring Regulatory Asset Owner; (f) any obligation of the transferring Regulatory Asset Owner to collect and remit Transition Charge Collections on behalf of an Absolute Assignee, including but not limited to, any retention by the transferring Regulatory Asset Owner to bare legal title for the purpose of collecting Transition Charges; or (g) the ascribed or intended treatment of the Disposition by the transferring Regulatory Asset Owner or the Absolute Assignee on any different basis including for tax, financial reporting or other purposes.]~~[28], and upon such Disposition the assigner or seller under the applicable Disposition Document shall retain no right, title or interest in the Investment Interest subject to the Disposition, including all rights under the Investment Interest arising after such Disposition.

(3) **Perfection and Priority of Dispositions** – Any Disposition of an interest in a Regulatory Asset shall be vested, valid, binding and perfected from the time when such Disposition is made. Such Disposition shall be perfected, vested, valid and binding as against the transferring Regulatory Asset Owner and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the transferring Regulatory Asset Owner, irrespective of whether such persons have notice of the Disposition and the property rights and interests acquired by the Absolute Assignee under such Disposition shall be free and clear of any liens in favour of such other persons.

~~[28] Consider if helpful to investors, or delete.~~

(4) **Validity of Pledges** – Despite any limitations or restriction on a Pledge that may arise by contract or by operation of any applicable law of the Province ~~[~~or any consent requirement applicable to a Pledge that may arise by ~~contract or by~~ operation of any applicable law of the Province~~]~~, a Pledge by ~~a Regulatory Asset Owner~~an Absolute Assignee may be made to secure any related Funding Obligation and when made shall be valid and enforceable in accordance with its terms and shall be effective to confer upon the Pledgee a valid security interest in, to and in respect of the ~~Regulatory Asset~~related Investment Interest in accordance with the terms of the Pledge. Other than as required by the Financing Plan, no consent of any person shall be required to give effect to a Pledge made to secure any Funding Obligation.

(5) **Perfection and Priority of Pledges** - ~~Any Pledge made by a~~For purposes of the *Personal Property Security Act* (the "PPSA"), the Regulatory Asset ~~Owner~~shall be intangible personal property and any Pledge made by an Absolute Assignee in respect of a Funding Obligation ~~incurred under the Financing Plan shall be perfected, valid and binding from the time when the Pledge is made and shall be valid and binding as against the Regulatory Asset, the Regulatory Asset Owner making the Pledge and all other persons who have claims of any kind (whether in tort, contract or otherwise) against the Regulatory Asset or the pledging Regulatory Asset Owner, irrespective of whether such persons have notice of the Pledge and the security interests of the Pledgee under such Pledge shall have priority over any liens in favour of such other persons. All proceeds of the Regulatory Asset~~may be perfected by filing a financing statement under the PPSA on that basis. All proceeds of a related Investment Interest that are subject to such a Pledge that are received by the ~~Regulatory Asset Owner~~Absolute Assignee shall immediately be subject to the such Pledge, and the security interest in such proceeds shall be perfected~~, without any physical delivery thereof, registration of any financing statement with respect thereto~~ pursuant to the ~~[~~PPSA~~]~~ ~~or any other further act.~~[29].[17] A Pledge perfected under the PPSA shall be a continuously perfected security interest and shall have priority over any other lien or security interest, created by operation of law or otherwise, that may ~~subsequently~~ attach to the property rights and interests in the ~~Regulatory Asset~~Investment Interest subject to the Pledge unless the Pledgee has otherwise agreed in writing. ~~Any~~Subject to the terms of the Collective Action Agreement, a Pledgee shall have a perfected security interest in a related Investment Interest, including the Absolute Assignee's rights and interests in and to Transition Charge Collections or other related proceeds in respect of the Investment Interest and that are deposited in any Regulatory Asset Account or other account of any Electricity Distributor, IESO, Alternative Collection Agent or other person who may have commingled such Transition Charge Collections or such other proceeds with other funds. ~~[A Pledgee~~All provisions of the PPSA shall ~~cause a financing statement to be filed in respect of a Pledge on the basis that~~apply to the Regulatory Asset on the basis that it is ~~"~~intangible~~"~~ personal property, ~~for informational purposes only under the [PPSA].~~except to the extent otherwise provided in this Section 6(5).

(6) **Enforcement of Property Rights** – The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5.

(7) **Owners of a Specified Portion of the Regulatory Asset** – A Regulatory Asset Owner may effect a Disposition to an Absolute Assignee of a specified portion of its rights and

~~[29]~~[17] Consider whether to simply leave this and have a financing statement be filed under the PPSA. This would normalize the security interest and reduce any adverse suggestion that security would not otherwise arise.

interests in the Regulatory Asset, including by way of a Disposition of a divided or an undivided interest therein as specified in a related Disposition Document, in each case under the Financing Plan. In no circumstance may the specified portions of the rights and interests in the Regulatory Asset owned by all Regulatory Asset Owners be greater than all of the rights and interests that comprise the Regulatory Asset in the aggregate.

(8) **Collective Action Required** – If a Regulatory Asset Owner's ~~right~~rights and ~~interest~~interests in the Regulatory Asset comprises less than the entire property right and interest constituted by the Regulatory Asset, such Regulatory Asset Owner shall only enforce such right and interest on a collective ~~[~~and ~~joint]~~coordinated basis with each other Regulatory Asset Owner in accordance with the Collective Rights Agreement.[30]

Article 7 – Establishment of the Fair Allocation Plan[31][18]

(1) Adoption of the Fair Allocation Plan – The ~~[Minister of Energy]~~[32]Delegate may ~~,~~ [by written ~~order~~declaration,] designate and adopt a Fair Allocation Plan in compliance with Article 7. The Fair Allocation Plan so designated and adopted shall be the Fair Allocation Plan for all purposes of this ~~Part~~Act, ~~[~~except if amended, amended and restated or terminated by a further written ~~order issued~~declaration made by the ~~Minister of Energy~~Delegate in compliance with Section ~~•~~]7(4).

(2) Principles and Parameters[33] – A Fair Allocation Plan shall seek to allocate ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits across present and future ~~Ratepayer~~Retail Consumer Groups on a basis that the ~~Minister of Energy~~Delegate, in its sole and absolute discretion, determines to be equitable, having regard to the following principles and parameters[34]:

1. ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits should be allocated over ~~a period not to exceed the later of (a) the estimated remaining useful life of the Related Generating Assets and (b) the remaining term of IESO's commitments under the Power Contracts~~the period ending on the Program End Date.

2. The Fair Allocation Plan should specify the Reference Periods ~~(e.g., 6 month periods),~~ for the purpose of identifying applicable ~~Ratepayer~~Retail Consumer Groups and allocating ~~among them responsibility to bear the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits among them on a relative basis over time.

[30] ~~This is necessary to ensure that if there are multiple regulatory asset owners and pledgees, they will be coordinated in the application of their rights of enforcement, etc.~~

[31][18] The idea is that the Fair Allocation Plan will be set once at the outset based on the principles and parameters described here, all as applied based on information available and the reasonable expectations and discretion of the delegate at such time. If the expectations are not fulfilled (e.g., generators may choose to retire their facilities at the end of their current ~~Power Contracts~~procurement contracts and not invest in extending service lives to secure further ~~power~~procurement contracts), the Fair Allocation Plan will be unaffected, unless it is specifically amended (assuming amendments will be permitted by the legislation).

[32] ~~Input required. If the MOE is given this power, conform to applicable authorities (e.g., plans and directives).~~

[33] ~~Consideration will be given as to whether these details should be included in the Regulation.~~

[34] ~~We have provided a few examples of what could be the basic principles. These will depend on market considerations, the Province's decision on the required amount of detail and the ability to sustain the legal basis for the program. These examples are not meant to suggest the appropriate balance – just illustrative to advance a discussion among the stakeholders.~~

3. The share of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits allocable to a particular ~~Ratepayer~~Retail Consumer Group in respect of a Reference Period should be proportionate to a reasonable assessment of the benefits of the Green Generation Initiative to the ~~Ratepayer~~Retail Consumer Group over such Reference Period.

4. The ~~estimated Unrecovered~~share of Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated to a ~~Ratepayer~~Retail Consumer Group and any future ~~Ratepayer~~Retail Consumer Group at a particular time should not exceed the ~~estimated value of the Related Generating Assets based on their remaining useful lives or terms~~Estimated Future Green Transition Benefits, measured in respect of the ~~period~~Reference Periods following such particular time and to the Program End Date.

5. No future ~~Ratepayer~~Retail Consumer Group should ~~bear~~be allocated an unreasonably disproportionate share of ~~the Unrecovered~~Estimated Future Green Transition ~~Costs~~Benefits. Except in exceptional circumstances or in the case of any ~~backward-looking adjustment made~~reallocation of an Over-Assessed Amount as contemplated in 7, below, the ~~share of the Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to be allocated under a Fair Allocation Plan to any future ~~Ratepayer~~Retail Consumer Group should have regard to *[Insert formula if a year-over-year maximum amount is determined to be appropriate]*[35].

6. ~~A reasonable estimate of the rate of inflation~~The time value of money should be ~~applied~~reflected in the Fair Allocation Plan, in order to equate the relative values of the nominal ~~amount of Unrecovered Transition Costs to be allocable to Ratepayer~~allocations of Future Fair Share of Green Transition Benefits, calculated in current dollars, to future Retail Consumer Groups over time.

7. ~~Backward-looking adjustments to a~~To the extent there has been an Over-Assessed Amount, the Fair Allocation Plan may ~~be made to achieve a fair distribution among Ratepayers of the benefits of the Green Generation Initiative.~~determine that an adjustment should fairly be made to rebate Retail Consumers for such an amount, by reducing the costs otherwise attributable under the Act to such Retail Consumers. The relative costs of the Green Generation Initiative are reflected under the Act by the attribution of Transition Charges to such Consumer Groups, based on the Financing Plan seeking to track the allocations of benefits under the Fair Allocation Plan. Accordingly, the Maximum Transition Charge Amount determined for one or more Retail Consumer Groups having regard to the Fair Allocation Plan otherwise applicable may be appropriately reduced to recognize the effect of the Over-Assessed Amount. In such a case, a determination to reduce the Maximum Transition Charge Amount applicable for certain related Reference Periods should have regard to the principle that the corresponding rebate should be extended to benefit the Consumer Group or Consumer Groups in closest proximity to the Legislative Implementation Date.

(3) Attribution Methodology – The Fair Allocation Plan ~~[~~shall~~]~~ specify ~~an objective methodology (~~the "~~Attribution Methodology~~")~~ for the purposes of allocating the Period

~~[35] Consider if a quantitative limit needs to be included in the legislation.~~

Transition Charges across ~~all of~~ the ~~Ratepayers~~Retail Consumers of a particular ~~Ratepayer~~Retail Consumer Group. The Attribution Methodology shall result in an attribution of such Transition Charges that ~~are~~is considered by the ~~Minister of Energy~~Delegate to be equitable, and may have regard to such principles and parameters as may be further set forth in a Regulation.

(4) ~~**[Confirmation][Review] of the Fair Allocation Plan** – [OEB?][36]~~**Amendments of the Fair Allocation Plan** – The Fair Allocation Plan may be amended, amended and restated or terminated by the Delegate, provided that such amendment, amendment and restatement or termination shall (a) not be inconsistent with the principles and parameters set forth in (2) or (3), above, or the Regulation and (b) comply with any restrictions or limitations specified with respect thereto in any Funding Obligation.

Article 8 – The ~~Financing Plan~~[37]IESO Retained Interest

(1) **Maintain Books of Account** – IESO may maintain books of account to record the IESO Retained Interest Amount and all adjustments thereto from time to time. Such books of account shall be determinative with respect to the amount of IESO's related regulatory asset.

(2) **Limitation on Additions** – IESO shall not record additions to the IESO Retained Interest Amount in respect of IESO Funding Shortfalls (a) if such additions are restricted by the terms of any Disposition Document or the Collective Action Agreement, or (b) on or after •, 2017.

(3) **Dispositions** – IESO may effect a Disposition to an Absolute Assignee if (a) the Absolute Assignee has or will concurrently become bound by the Collective Rights Agreement; (b) the Disposition is effected pursuant to a Disposition Agreement duly executed by IESO; (c) the Financial Services Agent confirms in writing that the Disposition is permitted under the Financing Plan; and (d) the net proceeds payable to IESO from the sale of the related Investment Interest would not exceed the IESO Retained Interest Amount immediately before the time of such Disposition.

(4) **No Continuing Interest in any Investment Interest** – IESO shall have no continuing right or interest in any Investment Interest subject to a Disposition effected by IESO under a Disposition Document to which IESO is a party and IESO shall not assert any such right or interest or take or omit to take any action to exercise or enforce its rights or interests under the IESO Retained Interest if such action or omission would impede or obstruct the rights of any Absolute Assignee or a Pledgee to enforce its rights and interests in any Investment Interest, except if IESO is expressly permitted to take or omit to take such action, respectively, under the related Disposition Document or the Collective Rights Agreement.

(5) **IESO Financing Costs** – IESO shall be entitled in good faith to incur reasonable financing costs (including interest and other reasonable financing charges) reflecting

~~[36] Any approvals or consents by the OEB will be obtained before any Funding Obligation that is dependent on such approval or consent is incurred. Any such approval or consent will be irrevocable and non-appealable. Any regulatory action occurring after any incurrence will not affect the related Funding Obligation or underlying rights in the Regulatory Asset.~~

~~[37] Consideration will be given as to whether these details should be included in the Regulation.~~

market terms and conditions and which are payable in arrears, in order to finance its ownership of the IESO Retained Interest from time to time.

(6) **IESO Recoveries** – IESO shall, in respect of a month, be entitled to receive from IESO Remittances on a related Settlement Date the amount (if any) available to IESO under Section 5(6)(b).

Article 9 – The Financing Plan

(1) **Power to Prepare ~~and~~, Implement and Amend the Financing Plan** – ~~In compliance with a [written order][***MOE to confirm process.***] of the Minister of Energy, the Administrative Agent shall~~The Financial Services Agent shall be authorized to prepare, implement and ~~propose~~amend the~~ adoption of a~~ Financing Plan. If the ~~Administrative~~Financial Services Agent is unwilling or unable to prepare and propose the adoption of ~~a~~the Financing Plan, the ~~Minister of Energy~~Delegate may by written ~~order~~declaration designate one or more other persons who shall be authorized to prepare ~~and~~, implement ~~such a~~and amend the Financing Plan.

(2) ~~**Required**~~ **Terms and Conditions of the Financing Plan** – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions ~~that have the effect of allocating the Unrecovered Transition Costs across present and future Ratepayer Groups on a basis that is consistent with the Fair Allocation Plan~~. The Financing Plan shall ~~be consistent with~~have regard to the principles~~,~~ and parameters~~, requirements and conditions~~ set forth in Schedule 3 and such other conditions and requirements as may be specified in a written ~~order~~declaration of the ~~Minister of Energy [~~Delegate or in accordance with the Regulation~~]~~.

(3) ~~**Power to Review and Approve the Financing Plan** – The Minister of Energy may, by written order, designate one or more persons to review the Financing Plan and to review and assess the consistency of the Funding Obligations incurred with such Financing Plan, and the Minister of Energy may specify requirements in respect of such review in such written order. The Administrative Agent, or such other person(s) as may be designated by written order of the Minister of Energy made pursuant to Section 8(1), shall make any such amendments to the Financing Plan, and submit a revised Financing Plan to the designated reviewer for approval within [the time period specified in such written order]/[[●] days of such written order].[***Consider periodic amendments to the Financing Plan following an annual review; provided that amendments cannot affect the existing Funding Obligations. Consider the level of oversight the MoE/OEB will have over this process?***]~~**OEB Approval** – Any Additional Funding Charge payable to or for the benefit of the Financial Services Agent shall be subject to review and approval by the OEB.

(4) ~~**Approval of Financing Plan –** The **[OEB]** shall have the power to and shall approve or disapprove of the Financing Plan based solely on whether the Financing Plan is consistent with (i) the principles, parameters, requirements and conditions set forth in Schedule 3, (ii) such other conditions and requirements as may be specified in a written order of the Minister of Energy [or in accordance with the Regulation] [and (iii) the Fair Allocation Plan]. If the **[OEB]** approves the Financing Plan, then such Financing Plan shall be implemented by the Administrative Agent. If the OEB disapproves of the Financing Plan or otherwise fails to approve the Financing Plan, then the Administrative Agent shall re-submit the Financing Plan with such amendments as the Administrative~~

Agent shall consider necessary for the Financing Plan to be approved by the OEB.[38] **OEB Review** – The OEB [shall] undertake an annual review of the records maintained by the Financial Services Agent for the purpose of confirming that the Funding Obligations incurred and the Finance Amounts paid by or on behalf of the Absolute Assignees were incurred and paid, respectively, in material conformity with the Financing Plan.

(5) **Consistency with the Fair Allocation Plan** – Funding Obligations should only be incurred if Repayments and Funding Costs would be borne by present and future Designated Ratepayers on a basis that is [generally] consistent with their respective allocations of the costs and benefits of the Green Generation Initiative contemplated in the Fair Allocation Plan. In that regard, at the time of setting the Fair Allocation Plan for any particular period, the aggregate amount payable during future Reference Periods on account of Funding Obligations incurred on or before the date on which a new Funding Obligation is incurred should not exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group contemplated in the Fair Allocation Plan. If, despite the foregoing, the Administrative Agent determines that the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Ratepayer Group under the then current Fair Allocation Plan, the Financing Plan shall require the Administrative Agent to make diligent efforts to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances, if such a Refinancing or deferral is determined to be available the Financing Plan shall require the Administrative Agent to make diligent efforts to implement such Refinancing or deferral on a basis that is consistent with the Fair Allocation Plan.

(5) **(6) Establishment of Special Purpose Entities** – If the implementation of the Financing Plan contemplates the establishment of one or more special purpose finance entities to incur Funding Obligations as a Financing Entity under the Financing Plan, as an Absolute Assignee and on a basis that limits the recourse for the payment of such Funding Obligations to such Absolute Assignee's interest in, to and under the Regulatory Asset, the Administrative Agent shall have regard to the characteristics specified in Schedule 4 in establishing such special purpose entity.]**Replacement of the Administrative Agent** – If the OEB identifies deficiencies or makes recommendations in its review under Section 9(4), the Administrative Agent shall take reasonable measures to remedy such deficiencies if remediable, and shall in any event have regard to the recommendations of the OEB in relation to further actions undertaken by the Financial Services Agent under the Financing Plan. If the Financial Services Agent is unwilling or unable to reflect such recommendations in relation to such further actions, the Delegate may by written declaration designate one or more other persons who shall thereafter become the Financial Services.

(6) **(7) Obligation to Apply IESO Remittances** – The AdministrativeFinancial Services Agent shall ensure that amounts transferred to it under Article 5, as agent for and on behalf of the Regulatory Asset OwnersAbsolute Assignees, or otherwise in respect of or

[38] Once the Financing Plan is reviewed and approved there would be no further OEB review. If there is opportunity for further review, such review will have no impact on prior issued debt. Any further financings would be put on hold until such review is completed (during which time the IESO would again need to fund the shortfall on an interim basis and obtain necessary funding).[1]

as proceeds from ~~the Regulatory Asset~~an applicable Investment Interest shall only be applied or used to pay related Finance Amounts when they are due and payable and for no other purpose.[39]

(7) ~~(8)~~ **Non-Recourse** – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, ~~and~~any Alternative Collection Agent, the ~~Administrative~~Financial Services Agent, the OEB, the Province or the Lieutenant Governor in Council, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this ~~Part~~Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount. [All Funding Obligations shall contain a statement to the following effect: "Neither the full faith and credit nor the taxing power of the Province of Ontario is pledged to the payment of the principal of, or interest on, this [obligation].]

(8) ~~(9)~~ **Incurrences are Binding** – ~~Despite any failure to adhere to the Financing Plan or to comply with any requirement of this Part,~~Notwithstanding anything to the contrary in this Act, each Disposition made to or by an Absolute Assignee and all amounts payable or becoming due and payable by or on behalf of ~~a Regulatory Asset Owner~~an Absolute Assignee under or in connection with any obligation purporting to be a Funding Obligation, shall be binding for the purposes of this ~~Part~~Act, including in determining the amount of related Transition Charges, despite any impairment or defect resulting from such failure.

[Article ~~9~~10 – Compliance Matters[40~~19~~]

(1) **Right of the [OEB] to Inspect Books and Records** - For the purpose of investigating compliance with the provisions of this ~~Part~~Act, the ~~[~~OEB~~]~~ shall have the right, jurisdiction, power and authority to examine the books and records of ~~any person who is or may become obligated or have duties that arise under this Part or any Funding Obligation~~*~~[Insert names if any]~~*.

~~(2) **Power to Investigate Compliance and Impose Regulatory Sanctions** - Subject to the limitations set forth regarding the irrevocability of Transition Charges and the Undertaking of the Lieutenant Governor in Council, nothing in this Part shall (a) prevent or preclude the [OEB] from investigating the compliance of any person who is or may become obligated or have duties that arise under this Part [or any Funding Obligation] with the terms and conditions of this Part and requiring compliance by such person therewith; or (b) prevent or preclude the [OEB] or any successor regulator from imposing regulatory sanctions against any person who is or may become obligated or have duties that arise under this Part for its failure to comply with the terms and conditions of this Part[41].~~

(2) ~~(3) [Other Rating~~**OPG's Rate Settings** – When setting other rates for or in respect of ~~any person who is or may become obligated or have duties that arise under this Part,~~

[39] ~~We need to work in the idea that there may be Finance Reserve Deposits or other amounts that remain after paying Finance Amounts. Those surplus amounts should be credited back to Ratepayers.~~

[40~~19~~] As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article ~~is~~and any potential role for the Auditor General is still under consideration.

[41] ~~Consider scope of OEB regulation and whether a Financing Entity should be subject to this sort of provision in any event.~~

~~including any Electricity Distributor, IESO, Generator or the Administrative Agent, nothing in this Part shall prevent the [OEB] or any successor regulator from taking~~OPG, the OEB shall not take into account (a) the ~~collection by or attribution to such person of~~ administrative or servicing fees charged by OPG as Financial Services Agent [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services.~~]~~[42]; (b) the cost consequences to OPG of being the Financial Services Agent; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][20]

Article ~~10~~11 – Undertaking of the Lieutenant Governor in Council[43][21]

(1) **No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections** – The [Lieutenant Governor in Council] shall not in any way take or permit any action to reduce, impair, postpone or terminate the obligation of ~~Ratepayers~~Retail Consumers to pay Transition Charges or to impair the Regulatory Asset or the collection or recovery of Transition Charge Collections, Electricity Distributor Remittances or IESO Remittances, either directly or indirectly~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect. The amount of Transition Charges determined ~~hereunder~~under this Act shall not be subject in any way to reduction, impairment, postponement or termination as a result of any action taken or failure by the Lieutenant Governor in Council~~[~~, including through the introduction of any bill or the passing of any legislation or regulation~~]~~ having such effect.

(2) **Undertaking and Agreement** – The [Lieutenant Governor in Council] shall not:

(a) in any way take or permit any action that limits, alters or impairs the value of any Investment Interest;

(b) ~~**(2) Undertaking and Agreement** – The Lieutenant Governor in Council shall not in any way take or permit any action that limits, alters or impairs the value of the Regulatory Asset or,~~ except as required by the estimates and adjustments made in determining the True-up Amount, reduce, alter or impair Transition Charges that are imposed, billed, invoiced, collected and remitted for the benefit of the ~~Regulatory Asset Owners, including any~~ Absolute ~~Assignee from time to time, and~~Assignees or any Pledgee from time to time~~[~~,~~including through the introduction of any bill or the passing of any legislation or regulation~~]~~.;

(c) permit the amendment, amendment and restatement or termination of the Fair Allocation Plan if such amendment , amendment and restatement or termination

[42] ~~OPG has indicated that the risks and cost consequences to OPG of being an~~[20] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Administrative Agent ~~or of consolidating a Financing Entity for accounting purposes should not be considered by the OEB in setting the regulated payment amounts for~~of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role. ~~To be discussed.]~~

[43] ~~Under consideration~~[21] Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is *ultra vires*, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes.

would adversely affect the validity or enforceability of any Funding Obligation or the rights of an Absolute Assignee or Pledgee thereunder,

in each case including through the introduction of any bill or the passing of any legislation or regulation having such effect.

(3) **Successor IESO** – If IESO is restructured, dissolved or becomes insolvent or is otherwise incapable of performing its obligations under this Act, Successor IESO shall be established to perform such obligations.

(4) ~~[If IESO becomes insolvent or otherwise incapable of performing its obligations under this Part, an IESO Successor will be established that is capable of performing such obligations in order that the Regulatory Asset Owners may appoint the IESO Successor as an Alternative Servicer or Alternative Collection Agent. Regulatory Asset Owners shall be fully~~**Compensation for Failure** – Absolute Assignees shall be compensated for any losses suffered by them as a result of any failure by the Lieutenant Governor in Council to comply with its undertakings and agreements in this Article ~~10(2) for any loss suffered by the Regulatory Asset Owner as a result of such failure.~~[44]11.[22]~~]~~

(5) **No Wind-up of Financing Entity**. No Financing Entity may be voluntarily wound up, liquidated or dissolved until one year after all of its Funding Obligations are repaid.

(6) ~~**(3)**~~ **References to the Undertaking and Agreement** – Any non-confidential reference to the Undertaking of the Lieutenant Governor in Council, including in marketing materials and other documentation authorized for use by the Administrative in connection with any Funding Obligation, may be made provided that [*Add conditions to protect the Province*].

Article ~~11~~12 – Regulations

Regulations may be made under this ~~Part~~Act for the purposes described in Sections •,•,• and • and may be promulgated for any of the following purposes:

(a) to set standards and measures regarding the commercially reasonable requirements of the Province associated with ~~a Regulatory Asset Owner~~an Absolute Assignee incurring Funding Obligations or becoming obligated to pay any Finance Amount, including to establish guidelines regarding all-in funding costs; permitted Additional Funding ~~Costs~~Charges; required maturities and redemption and termination rights of Funding Obligations; liquidity requirements, in each case to a Financing Plan that is consistent in its effect with the Fair Allocation Plan;

(b) to establish and empower one or more regulated entities to undertake decision-making activities with respect to this ~~Part~~Act;

(c) to set out reasonable requirements regarding the appointment or retention of advisors, agents, service providers, contract counterparties, including in relation to 'market terms and conditions' parameters;

[44][22] Requested by Torys. For discussion.

(d) to provide for audit and compliance standards applicable to those persons who are or may become obligated or have duties that arise under this ~~Part~~Act [or under any Funding Obligation];

(e) to provide for any pre-vetting and approval requirements in relation to any incurrence by ~~a Regulatory Asset Owner~~an Absolute Assignee of any Funding Obligation or obligation to pay any Finance Amount; and

(f) to provide for appeal and due process considerations in connection with the establishment, adoption, implementation and review of the Fair Allocation Plan or the Financing Plan.

Article ~~12~~13- Miscellaneous[~~45~~23]

(1) **Choice of law** – The law governing, as applicable, the validity, enforceability, attachment, perfection, priority and exercise of remedies with respect to the transfer of an interest or right or creation of a security interest in the Regulatory Asset, any Transition Charge or the Undertaking of the Province shall be the laws of the Province.

(2) **Conflict of law** – In the event of conflict between this ~~Part~~Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this ~~Part~~Act shall govern to the extent of the conflict.

(3) **No further acts or approvals required** - Notwithstanding any provisions of any law of the Province to the contrary, no approvals, notices or authorizations other than those specified in this ~~Part~~Act shall be required with respect to the actions to be taken in compliance with this ~~Part~~Act, including under the Financing Plan or in relation to the establishment of the Fair Allocation Plan, and the transactions and contracts authorized in or contemplated by this ~~Part~~Act or the Financing Plan, including the incurrence of any Funding Obligation, any Disposition, any Pledge or in the payment and performance of any attendant or incidental contract and any related expenses incurred to facilitate the preparation and implementation of the Financing Plan.

(4) **Effect of invalidity after the Incurrence of any Funding Obligation** - Effective on the date that a Funding Obligation is incurred under this ~~Part~~Act, if any provision of this ~~Part~~Act is held to be invalid or is invalidated, superseded, replaced, repealed or expires for any reason, that occurrence shall not affect any action allowed under this ~~Part~~Act that is taken by any person who is or may become obligated or have duties that arise under this ~~Part~~Act and any such action shall remain in full force and effect.

(5) **Severability** - If any Article, Section, paragraph or subparagraph of this ~~Part~~Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections. To these ends, the Legislature hereby declares that the provisions of this ~~Part~~Act are intended to be

[~~45~~23] OPG would like the specific amendments related to OPG to be included in the Bill.]

severable and that the Legislature would have enacted this ~~Part~~Act even if any Article, Section, paragraph or subparagraph of this ~~Part~~Act held to be unconstitutional or invalid had not been included in this ~~Part~~Act.

Schedule 1

Guidelines for Estimates

[To be considered.]

Schedule 2

Requirements Applicable to Alternative Invoicing Agent/ Alternative Collection Agent

[To be considered.]

Schedule 3[24]

Principles, and Parameters, Requirements and Conditions for Establishing the Financing Plan

The Financing Plan shall have regard to the following principles, and parameters, requirements and conditions:[***Consider others.***] provide a guideline as to what a Financing Plan should address:

(1) the Financing Plan shall, in respect of each Reference Period, describemake reference to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to each Reference Group as contemplated by the Fair Allocation Plan;

(2) the Administrative Agent shall make a good faith estimate of theIESO Funding Shortfalls for each Reference Period, based on the terms of the Power Contracts and assumptions considered to be reasonable respecting forward market prices for electricity;

(3) the Administrative Agent shall describeconsider alternative funding arrangements considered to be suitable for the purpose of fundingto fund the estimated IESO Funding Shortfalls, including by reference to short term and/or long term Funding Obligations that could reasonably be incurred by the Regulatory Asset Owners for such purpose;

(9) **(4)** such Funding Obligations shall reflectconsider quantities, maturities, payment obligations, prepayment or redemption rights and such other features of Funding Obligations so that the effect of incurring such Funding Obligations would be that the payments made thereunder in respect of eachfor a Reference Period (including the anticipated Finance Amounts becoming payable in relation to such Funding Obligations) would reasonably correspond to the allocations of UnrecoveredFuture Fair Share of Green Transition CostsBenefits to the applicable Reference Group under the Fair Allocation Plan;

(4) if the anticipated amount of any Repayment (together with payments of other Finance Amounts) to be made in respect of a Reference Period would materially exceed the allocation of the costs and benefits of the Green Generation Initiative to the applicable Retail Consumer Group under the then current Fair Allocation Plan, diligent efforts should be made to determine whether a Refinancing or deferral of such Repayment may be reasonably and cost-effectively effected based on then prevailing market terms, conditions an circumstances;

(5) the Financing Plan shall reflect the outcome of a financial model that incorporatesreflect the assumptions and requirements specified in any contemplated Funding Obligation (e.g., any limit on the maximum amount of Transition Charges charged to a hypothetical RatepayerRetail Consumer relative to his or her monthly electricity bill, as prescribed by any rating agency that ascribes its credit rating to or in respect of the Funding Obligation having regard to the application of the Allocation Methodology); [***Consider what outputs from OPG will be tested by the OEB and when. The modelling in the Financing Plan may permit the OEB to check progress against the model from***

[24] Awaiting input from Torys based on OPG mark-up of Financing Plan sections.

~~***time to time, which may provide a basis for the MoE/OEB to require a review/amendment to the Financing Plan if the ongoing operation of the program results in significant deviation from the model. Consider whether this flexibility is desirable.***~~]

(6) ~~the Administrative Agent, for and on behalf of each Regulatory Asset Owner, shall seek to~~ incur Funding Obligations from time to time on the best terms available at such time for a financing transaction of the size and type contemplated, and having regarding to the following parameters:

a. whether the ~~Regulatory Asset Owners~~Absolute Assignees will require committed access to short term liquidity to cover estimated IESO Funding Shortfalls prior to incurring fixed term Funding Obligations, and the amount and repayment terms of any such required liquidity; provided that any Repayment required to be made under the terms of such short-term liquidity would not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

b. the basis upon which the ~~Administrative~~Financial Services Agent will select the term to maturity of any other Funding Obligations; provided that any Repayments required to be made under the terms of such Funding Obligations ~~shall~~should not obligate ~~a Regulatory Asset Owner~~an Absolute Assignee to repay an amount in relation to a Reference Period that would have the effect of the Financing Plan permitting incurrences of Funding Obligations payable in such Reference Period that would exceed the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to the applicable Reference Group under the Fair Allocation Plan;

c. the basis upon which the interest rates applicable to such Funding Obligations would be determined;

d. the reference capital or finance market in which such Funding Obligation would be incurred, including markets outside of Canada if considered by the ~~Administrative~~Financial Services Agent to be appropriate in the circumstances;

e. the currency of payments under such Funding Obligations and, if the Funding Obligations are denominated in a currency other than Canadian dollars, the basis upon which the ~~Administrative~~Financial Services Agent shall cause the applicable ~~Regulatory Asset Owner~~Absolute Assignee to enter into hedging transactions to mitigate currency risk, including acceptable minimum and maximum coverage levels, having regard to the availability of related derivatives having notional amounts corresponding to the repayment and maturity profile of such Funding Obligations;

f. the basis upon which the ~~Administrative~~Financial Services Agent will select counterparties under any transaction to be entered into by ~~a Regulatory Asset Owner~~an Absolute Assignee, including any paying agent, servicer, cash manager, liquidity provider, hedge counterparty, account bank, lender, note

trustee, security trustee, paying agent, registrar/transfer agent, financial services agent, arranger or manager;

g. the basis upon which the ~~Administrative~~Financial Services Agent will manage counterparty risk, including by providing for maximum counterparty exposure limits having regard to concentration, credit and other identified risks with respect to individual counterparties or countries;

h. the basis upon which the ~~Administrative~~Financial Services Agent will negotiate and settle Finance Amounts, including the amount of any Redemption Amounts, Finance Reserve Deposits and Additional Funding Charges;

(7) the basis upon which Funding Obligations may be redeemed, prepaid, repurchased or otherwise affected, having regard for the need to minimize debt service charges and other Funding Costs, and the need to maintain a stable funding platform to finance the IESO Funding ~~Shortfall~~Shortfalls from time to time on a basis that is consistent with the allocations of ~~Unrecovered~~Future Fair Share of Green Transition ~~Costs~~Benefits to applicable Reference Groups under the Fair Allocation Plan;

(8) the basis upon which any Repayments, Funding Costs and Redemption Amounts will be paid, including any defeasance, sinking fund or through other reserves or liquidity facilities;

(9) the basis upon which fees, charges, expenses, costs, indemnities, reimbursements and other amounts payable to or for the benefit of the ~~Administrative~~Financial Services Agent and other agents and service providers to the ~~Regulatory Asset Owners~~Absolute Assignees may be determined, allocated and paid;

(10) the timing and basis upon which Finance Reserve Deposits and Finance Reserve Withdrawals may be made;

(11) the basis upon which any obligations for any other Additional Funding Charges may be incurred and paid;

(12) the basis upon which the cash flows arising from time to time or otherwise derived from the Regulatory Asset may otherwise be applied, including in relation to any counterparty enforcement and realization scenario;

(13) the transmittal to [the IESO] of information related to the amounts to be included in the determination of the Period Transition Charge for a Reference Period;

(14) the basis upon which any Disposition may be made or effected by ~~a Regulatory Asset Owner~~an Absolute Assignee, including parameters for determining the purchase price for the interest in the Regulatory Asset that is the subject matter of such Disposition, and any consents and releases that may be usefully obtained in connection with such Disposition;

(15) ~~a description of each~~describe the requirements applicable to any special purchase entity that will purchase ~~the Regulatory Asset from the IESO~~an Investment Interest, including proposed capitalization, governance, and restrictions on their powers and activities ~~having regard to the parameters in Schedule 4~~; and

(16) the basis on which any Pledge may be given or effected.

~~**Schedule 4**~~

~~**Creation of any Special Purpose Entity to become a Regulatory Asset Owner]**~~

~~**(1) Powers and Abilities**:~~

~~a. No part of the revenue or assets of a Regulatory Asset Owner shall enure to the benefit or be distributable to its trustees, officers or directors, as the case may be, or any other private persons, except as may be provided for actual services rendered;~~

~~b. Each Regulatory Asset Owner shall be authorized to:~~

~~i. incur the Funding Obligations contemplated by a Financing Plan and use the proceeds thereof to purchase or acquire, and to own, hold and use the Regulatory Asset;~~

~~ii. contract for servicing of the Restructuring Asset and any bonds contemplated by a Financing Plan and for administrative services; and~~

~~iii. pledge the Regulatory Asset to secure the Funding Obligations incurred by the Regulatory Asset Owner;~~

~~c. So long as any Funding Obligations contemplated under a Financing Plan are outstanding, a Regulatory Asset Owner shall not be authorized to merge or consolidate, directly or indirectly, with any person or entity;~~

~~d. a Regulatory Asset Owner shall not have the power or authority to incur or guarantee or otherwise become obligated to pay any debt or obligations other than what is contemplated under a Financing Plan;~~

~~e. a Regulatory Asset Owner shall cause the proceeds obtained by incurring any Funding Obligation to be placed in one or more separate accounts and used only to purchase the Regulatory Asset and pay any costs as provided for in a Financing Plan; and~~

~~f. so long as the Regulatory Asset is pledged to secure Funding Obligations, the Regulatory Asset Owner must apply revenues from the collection of Transition Charges only to repay such Funding Obligations and other costs as provided for in a Financing Plan.~~

~~**(2) Governance of Regulatory Asset Owner –** A Regulatory Asset Owner shall be created having regard to the following principles:[***OPG to confirm if SPE will be a trust or another type of entity.***]~~

~~a. [Number of trustees]~~

~~b. [Replacement of trustees; vacancies; appointment of successors]~~

~~c. [Removal of trustees for neglect of duty or misconduct]~~

~~d. [Quorum and meetings]~~

~~e. [Fiduciary duty]~~

~~f. [Isolation, separateness and other "non-consolidation" and "bankruptcy remoteness" criteria]~~

~~g. [Delegation of powers and duties to administrative agents]~~

~~h. [Delegation of powers and duties to administrative agents]~~

(17)

Document comparison by Workshare Compare on Monday, April 10, 2017 11:00:11 PM

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Document 2 ID	PowerDocs://TOR_2528/23107566/9
Description	TOR_2528-#23107566-v9-"Fair_Hydro_Act"
Rendering set	Standard

Legend:	
Insertion	
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Style change	
Format change	
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Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	596
Deletions	610
Moved from	25
Moved to	25
Style change	0
Format changed	0
Total changes	1256

From:	Adam Prokop
To:	John Kim
Cc:	Bruno Amara
Subject:	GA Equity Injection
Date:	Wednesday, April 05, 2017 12:21:19 PM
Attachments:	BN - GA Equity Injection Structure v7. Markup6.docx

Hello,

Most of the considerations were added in a version of the note but I have added a few more points for the discussion this afternoon. The file can be found here: \\ofina.on.ca\ofadfs\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

COMMERCIALLY SENSITIVE AND CONFIDENTIAL

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds. IESO will use the cash proceeds to make up the shortfall in GA payments from ratepayers.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing & administrative costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG Trust [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.

Commented [BA1]: May be good to make 2nd part clear upfront. Redraft if I didn't get language right.

Commented [BA2]: Confused here. Are we referring to interest received or OPG annual payments to Trust.

Commented [AP3]: From IESO according to white paper who would collect the payments and remit to OPG.

Commented [BA4]: Also confused about comment: Should that be ".....received by OPG Trust"

Commented [AP5R4]: Yes, you are right. Corrected.

Commented [JK6]: Check with SIFB or CMD on the right terminology.

Commented [FC7]: To me this is part of the terms and conditions

Commented [JK8]: Did I get this right?

Commented [FC9]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- Longer term debt will be issued as soon as possible, subject to market timing constraints.
  - OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
  - The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].
- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK10]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK11]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG.
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently ~~environed~~ envisioned to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).
  - [TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below.

Commented [FC12]: Not quarterly?

Commented [JK13]: Monthly now.

Commented [BA14R13]: For clarity, should we start with the broader statement that IESO will require monthly payments from the Trust, which in turn requires the Province to make monthly equity injections to OPG?

Commented [FC15]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP16]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.

- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ217]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

-

~~ADDITIONAL CONCERNS~~CONSIDERATIONS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

- OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the ~~proposed lock-up period ends~~'~~inflection~~' point in time where the ratepayers start to pay down the deferred GA.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of the~~is~~ proposed structure is ~~hypothetically~~currently viewed as fiscally neutral on an accounting basis, there is some concern over the cash flow-through of this structure with no flow through of interest or dividends over time.
- The Province would~~ill have~~~~incurr~~incur interest associated with the debt it borrows to finance the 44% equity injection. OPG should have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments.

Commented [BA18]: I'll stand to be corrected by you CFA types, but in economics an inflection point is the point where a curve changes from concave to convex or vice versa. Here we are talking about two lines are crossing. Just want to make sure we have correct terminology so that we don't get called us out later by some (other) smarty pants.

- ~~The interest cost will continue to build during the lock-up period as more principal is borrowed, resulting in potentially billions of aggregate interest owed by the Province to the capital markets.~~

- OPG may have the potential to lower its borrowing/equity injection costs with the "unpaid portion" of interest related to the Provincial debt for the 44% equity injections. Establishing a redemption premium that takes into account the compounded cost of the equity financing could "make the province whole" upon redemption on a further date. Valuation options are currently being discussed.

- It may be necessary to establish a flow-through of cash from OPG to the Province through some type of return, such as a dividend ~~or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Province~~

- In order to reasonably guarantee ~~this~~a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield ~~related~~associated with ~~to~~ the interest cost of the Province's ~~related debt~~borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g. through a form of dividend reinvestment plan.

- A preferred equity structure~~This~~ could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

- Legislation is still determining the actual rate to be charged to ratepayers. In the most recent shared draft, a few options were being considered

    - Interest and other financing (e.g., admin costs), as well as the principal portion of the GA financing when those payments commence.

    - The ability for OPG to earn a return, i.e., a higher rate charged to ratepayers than the actual total financing and principal costs.

    - The ability for OPG to earn a return, but with a cap on profits.

Commented [AP19]: This is not necessarily true as an acceptable premium associated with the buyback feature would mitigate this concern. Maybe keep the subsidy issue separate as mentioned above? The main risk is that the Province will be paying several hundred millions to billions of interest over time with no cash flow from OPG. OPG in turn would have the same amount of cash on its books – either idle or used for their own initiatives.

Commented [JK20]: Explain. Is this risk to OPG Trust, OPG or the Province.

Commented [AP21R20]: Risk is to OPG Trust/OPG because, if preferred equity is issued, then it could be viewed as debt.

Formatted

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: Adam Prokop
To: John Kim
Cc: Bruno Amara
Subject: GA Equity Injection
Date: Wednesday, April 05, 2017 1:55:37 PM

Hello John,

I would agree that as long as the return from the Trust is above/at the cost of capital, there is a low risk of the GBE status being threatened if the Province does an equity injection. If the return is just the financing costs, there may be some additional risk from the GBE status.

An important element for retaining the GBE status is if the GBE can continue to operate free of government funding or assistance as a going concern. For example, a GBE may need a one-time subsidy to get itself out of a tough pickle, but is projected to return to long-term profitability afterwards. In this case, it is unlikely that the GBE status would be threatened by the subsidy. What needs to be considered for this Trust is that these equity injections are monthly and over a long period of time of several years. At what point, if at all, would this continued reliance on government funding be considered as a form of a subsidy? If OPG (or the Trust) were to get this equity from a third-party, what would be the expected return to make this structure feasible (i.e., the market consistent equity costs)?

With a common equity injection, there is no guarantee that OPG will return the principal payments or give dividends. The proposed legislation also states that the Province cannot interfere with the Trust, which gives OPG an additional advantage.

The way I am viewing the problem is like buying a house with a 100% mortgage – I (the buyer) represent the Province. The house represents the 44% equity injection of OPG Trust, and the bank providing the mortgage represents the capital markets. Let's say the bank charges me an interest rate of 5% and the capital appreciation of the house is 10% annually.

I am putting my equity into the house, so I expect my return to at least be at the interest rate the bank is giving me (5%). My house will grow in value by 10% and my interest cost will be 5%, so I am getting a return. However, I am owing that cash in interest payments every year while getting no cash return from the house even though it's going up in value.

So on paper, I am growing in value, but my cash flows are actually negative. Eventually, I would need to exit the investment as it is unsustainable. In terms of the Province, this means that if not enough of the investment is returned as a cash inflow, the risk of loss and credit rating downgrades arise. What further complicates things is the fact that OPG is 100% owned by the Province

This is where the considerations of redeemable preferred equity (with a return and a redemption feature but no premium for the Province) or a redemption feature on common equity (redeemable by the Province and at a significant premium to par value after a lock-up period) could protect the cash flow concerns.

I have looked at several wholly-owned state-owned enterprises (SOEs) and their recapitalizations. Australia, Estonia, Hungary, New Zealand, Slovenia, and Norway all demonstrate that wholly-owned unlisted SOEs have requirements that recapitalizations from the public are subject to minimum expected rates-of-return. This is usually at least the cost of capital or market comparable rate. However, other countries (Chile, Finland, Israel, Korea, Lithuania, Netherlands, Poland, and UK) have no specific mechanisms to ensure market-consistent equity costs, but have several other methods including

- Subject to a regular feasibility study
- Takes both public interest and expected financial return into account.
- Considering a market consistent benchmark
- Considering the risk of the investment.

What it boils down to is the main point of the entire structure in the first place – to have 56% of the debt related to the GA financing structure off of the Province's books (on consolidation) to maintain the current credit rating as well as other political reasons regarding the Province's debt levels and balancing the budget. If the structure just involved the Province borrowing from the capital markets and getting payments from the ratepayers, it would be considerably less complicated. Since it is going through OPG, a separate commercial entity expected to be profitable, the rationale for this decision and the feasibility needs to be justifiable. The Hydro One equity injection was justified for protecting Hydro One's valuation; will the Province be compensate for the risk?

Just my continued mulling, will keep working on this.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Adam Prokop
To: John Kim; Bruno Amara
Subject: GA Financial Flow Chart Model
Date: Tuesday, March 07, 2017 3:55:08 PM
Attachments: GA financing Flow Model.xlsx

Hello John and Bruno,

Here is the flow diagram model based on the recent information from Energy, OPG, and the latest model from . I believe the current proposition accounting wise is for the OPG Trust to actually start collecting the interest cost from ratepayers (or recognize it in income only with a receivable as an offsetting entry).

Kind regards,

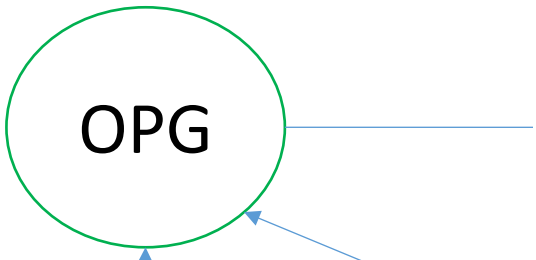
Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

Use the left toggle to switch between fiscal years and the right toggle to switch between debt transactions and interest transactions

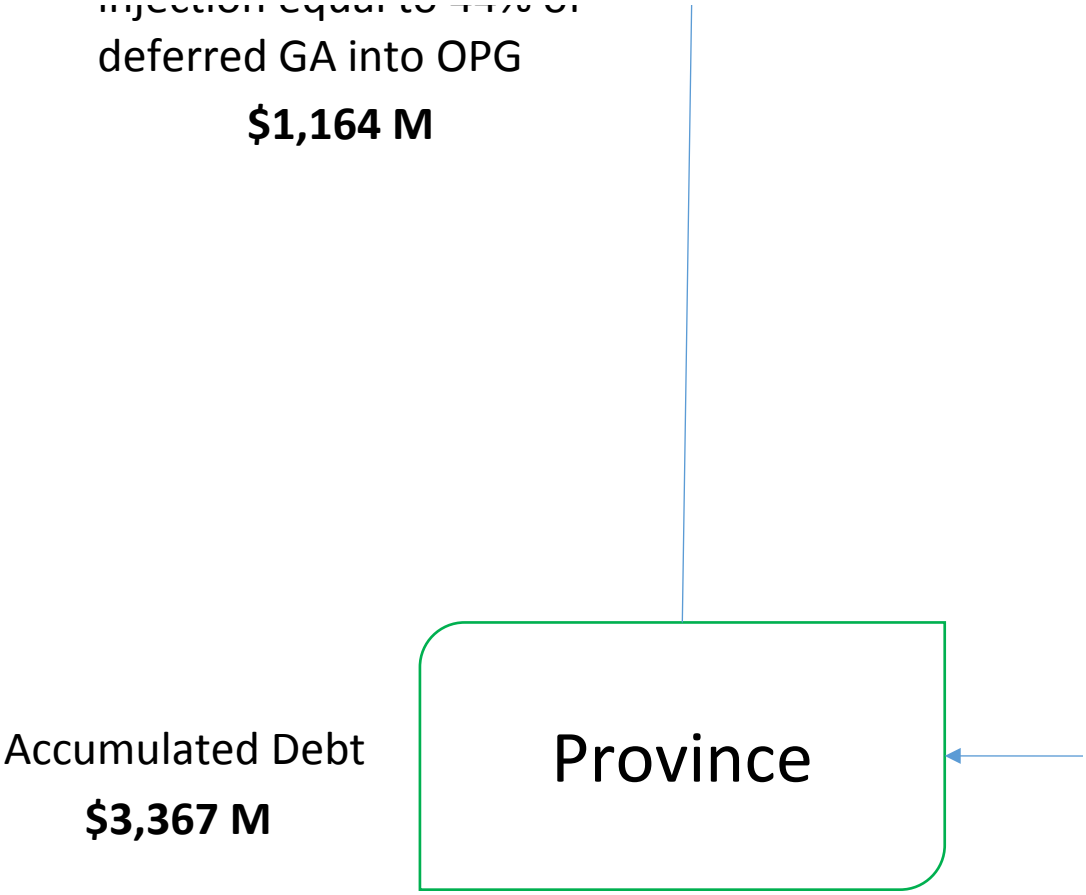
2019-20

B/S Transaction

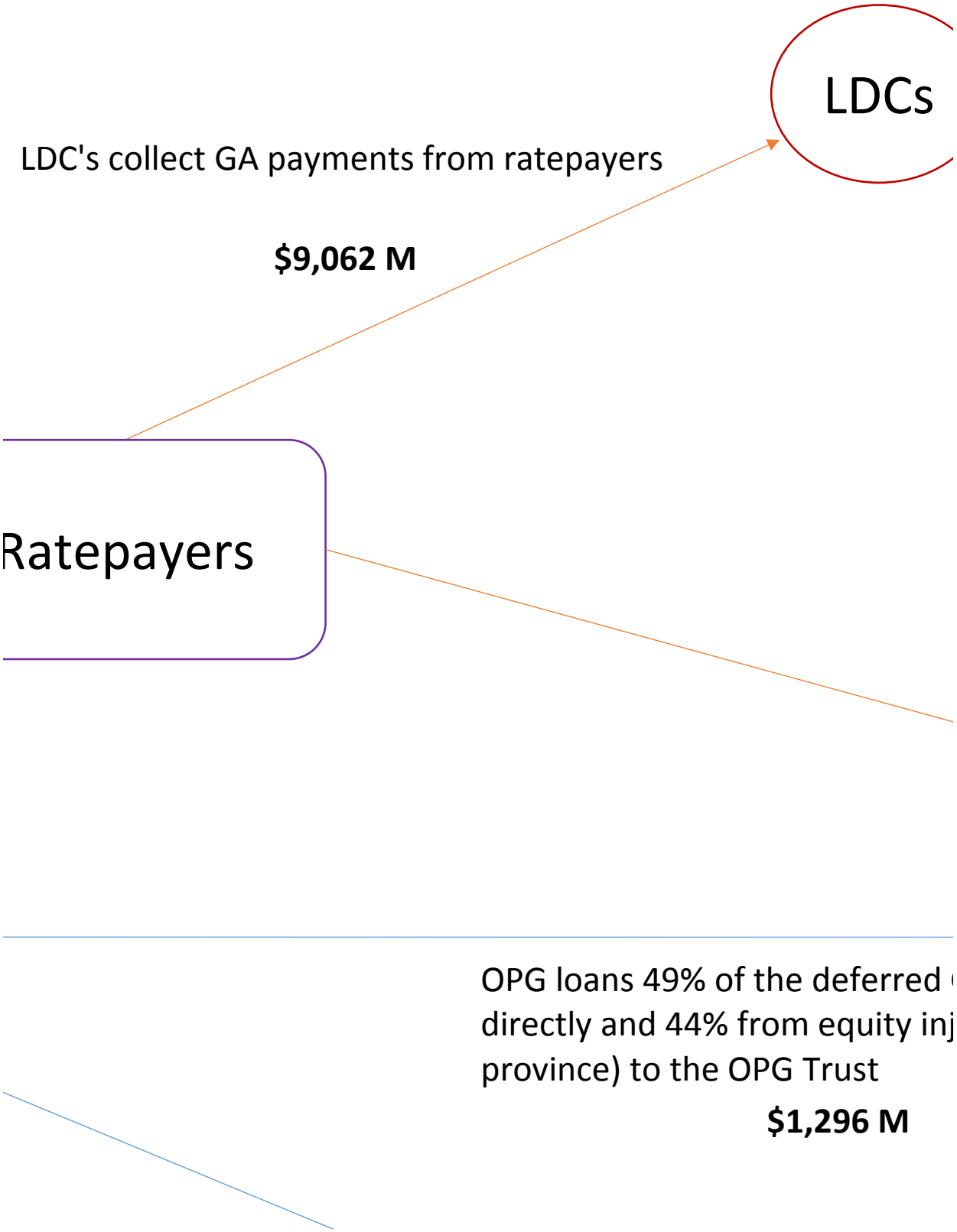
Accumulated Debt
$383 M



Province puts equity injection equal to 44% of


deferred GA into OPG
$1,164 M
Province
Accumulated Debt
$3,367 M

GA Deferral


LDCs
LDC's collect GA payments from ratepayers
$9,062 M
Ratepayers
OPG loans 49% of the deferred
directly and 44% from equity inj
province) to the OPG Trust
$1,296 M

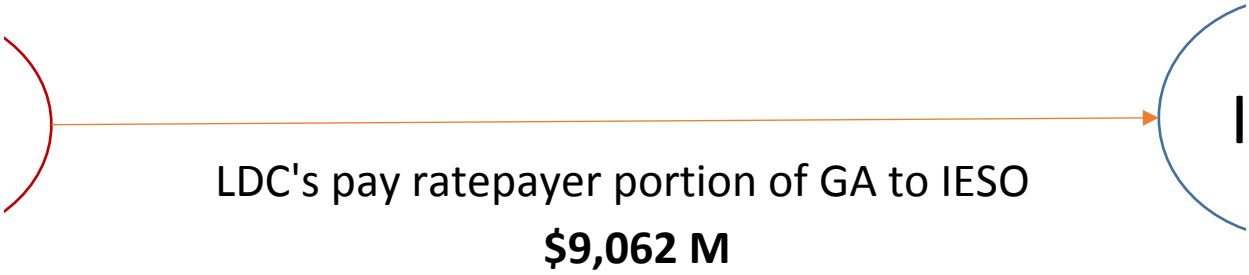
OPG borrows 5% of the deferred GA from the market

$132 M

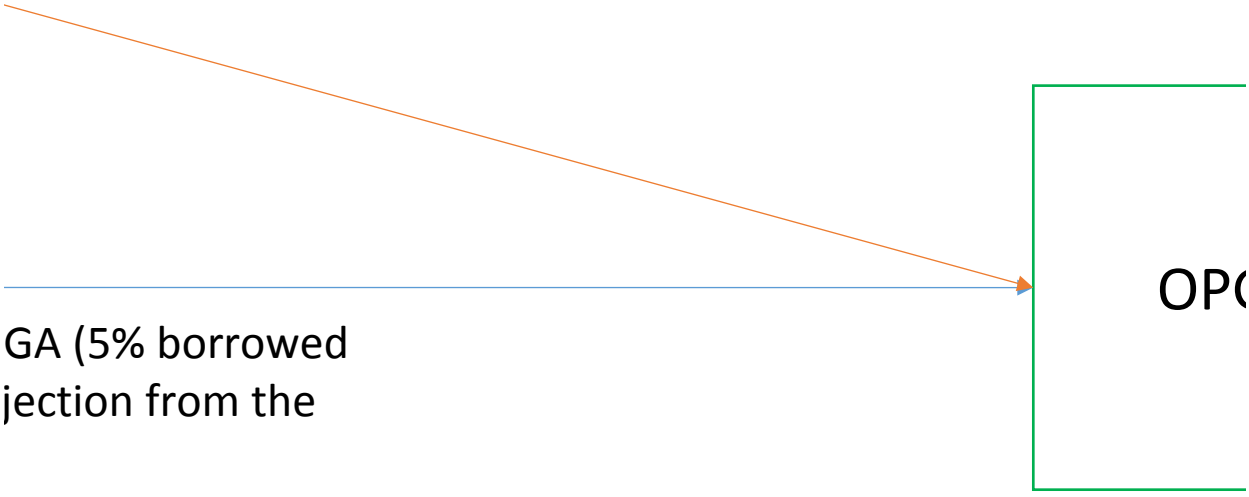
Province borrows 44 deferred GA from the r

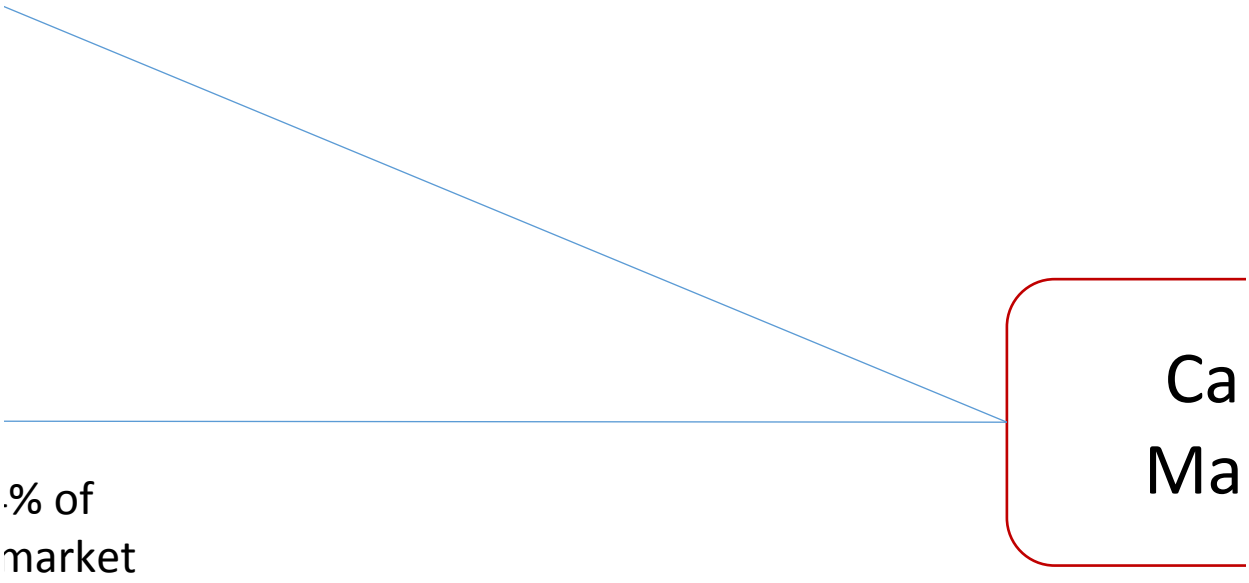
$1,164 M

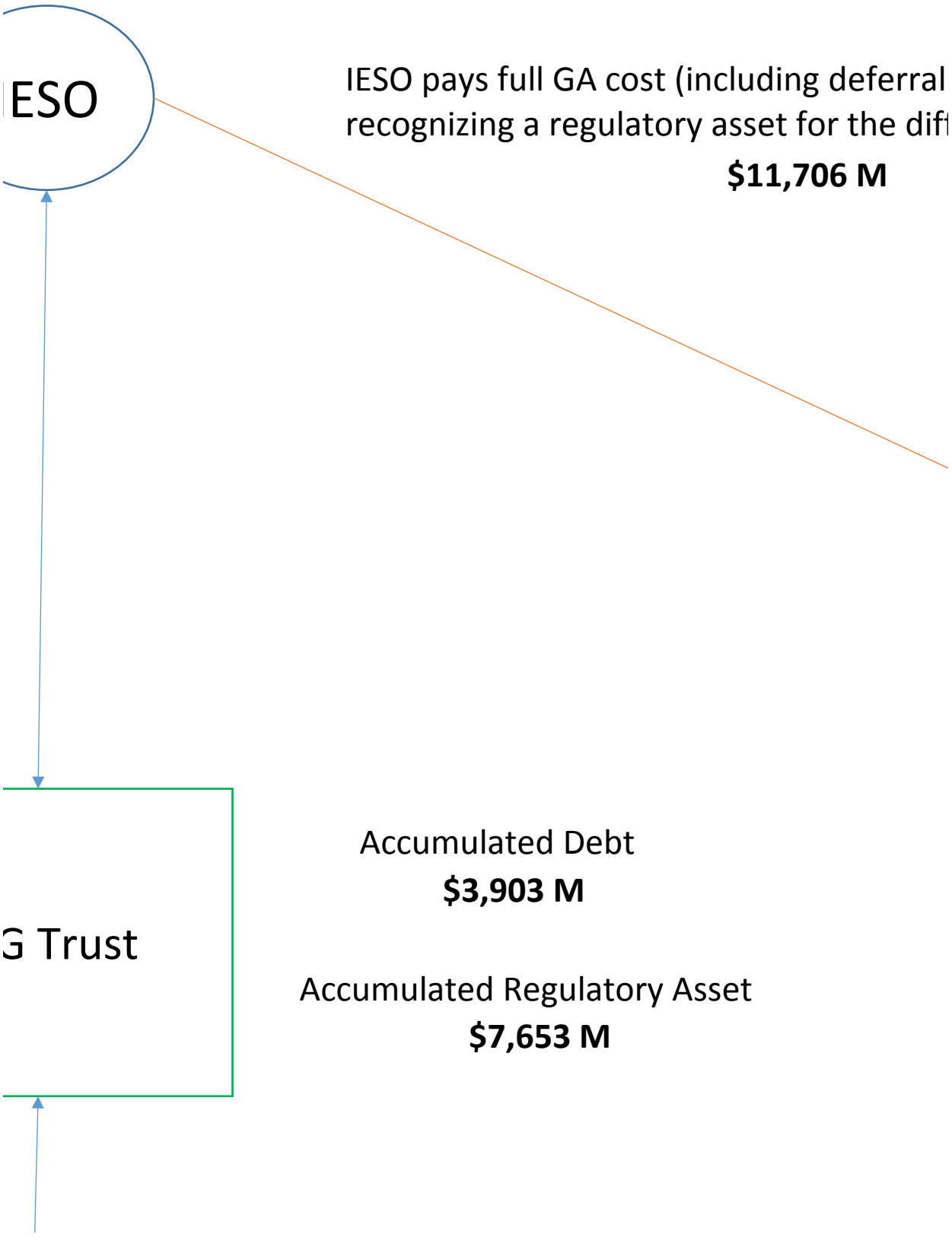
Mechanism



OPG trust purchases the regulatory asset from IESO in exchange for cash
$2,644 M



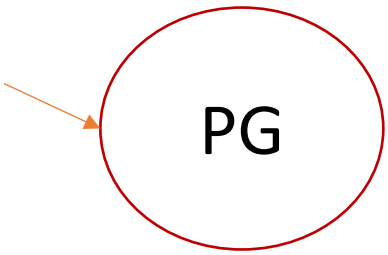

Ca
Ma
% of
market


ESO
IESO pays full GA cost (including deferral
recognizing a regulatory asset for the dif
$11,706 M
G Trust
Accumulated Debt
$3,903 M
Accumulated Regulatory Asset
$7,653 M

OPG Trust borrows 51% of the annual deferred GA from the market - **$1,349 M**

pital
rkets

) to the generators,
ference



44%
5%
51%

44%
5%
51%

B/S Transaction
Interest

B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S EOY
B/S EOY
B/S EOY
B/S EOY
Interest
Interest
Interest
Interest
Interest

GA Cost
Ratepayer Cost
Total Debt Borrowed
Province Share
OPG Share
OPG Trust share

Interest
2017-18
2018-19
2019-20
2020-21

Total
Province Share
OPG Share
OPG Trust share

Loan to OPG Trust from OPG

Province puts equity injection equal to 44% of deferred GA into OPG
Province borrows 44% of deferred GA from the market
OPG loans 49% of the deferred GA (5% borrowed directly and 44% from equity injection from the province) to the
OPG borrows 5% of the deferred GA from the market
OPG Trust borrows 51% of the annual deferred GA from the market -
IESO sells the regulatory asset to OPG Trust for cash used to make whole the power generators for the deferred G
OPG trust purchases the regulatory asset from IESO in exchange for cash
LDC's pay ratepayer portion of GA to IESO
LDC's collect GA payments from ratepayers
IESO pays full GA cost (including deferral) to the generators, recognizing a regulatory asset for the difference
Accumulated Regulatory Asset
Accumulated Debt
Accumulated Debt
Accumulated Debt
Interest due from Province to the Market for 44% GA Deferral
Interest due from OPG to the Market for 5% GA Deferral
Interest due from OPG Trust to the Market for 51% GA Deferral -
Interest due from OPG Trust to OPG from the 49% of GA Deferral loan (5% from OPG and 44% from equity injectio
Interest Income OPG Trust recognizes to be received from ratepayers to match 100% GA Deferral interest expens

Province puts equity injection equal to 44% of deferred GA into OPG
Province borrows 44% of deferred GA from the market
OPG loans 49% of the deferred GA (5% borrowed directly and 44% from equity injection from the province) to the
OPG borrows 5% of the deferred GA from the market
OPG Trust borrows 51% of the annual deferred GA from the market -
IESO sells the regulatory asset to OPG Trust for cash used to make whole the power generators for the deferred G
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LDC's collect GA payments from ratepayers
IESO pays full GA cost (including deferral) to the generators, recognizing a regulatory asset for the difference
Accumulated Regulatory Asset
Accumulated Debt
Accumulated Debt
Accumulated Debt
Interest due from Province to the Market for 44% GA Deferral
Interest due from OPG to the Market for 5% GA Deferral
Interest due from OPG Trust to the Market for 51% GA Deferral -
Interest due from OPG Trust to OPG from the 49% of GA Deferral loan (5% from OPG and 44% from equity injectio

2017-18	2018-19	2019-20	2020-21
$12,030 M	$11,764 M	$11,706 M	$11,837 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$125 M	$125 M	$132 M	$149 M
$1,276 M	$1,278 M	$1,349 M	$1,515 M
3.12%	3.63%	4.30%	4.30%
$39 M	$78 M	$78 M	$78 M
	$45 M	$91 M	$91 M
		$57 M	$114 M
			$64 M
$39 M	$124 M	$226 M	$347 M
$17 M	$54 M	$99 M	$153 M
$2 M	$6 M	$11 M	$17 M
$20 M	$63 M	$115 M	$177 M
$1,226 M	$1,228 M	$1,296 M	$1,456 M
1	3		
2017-18	**2018-19**	**2019-20**	**2020-21**
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$1,226 M	$1,228 M	$1,296 M	$1,456 M
$125 M	$125 M	$132 M	$149 M
$1,276 M	$1,278 M	$1,349 M	$1,515 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$12,030 M	$11,764 M	$11,706 M	$11,837 M
$2,502 M	$5,009 M	$7,653 M	$10,624 M
$1,101 M	$2,204 M	$3,367 M	$4,674 M
$125 M	$250 M	$383 M	$531 M
$1,276 M	$2,554 M	$3,903 M	$5,418 M
$17 M	$54 M	$99 M	$153 M
$2 M	$6 M	$11 M	$17 M
$20 M	$63 M	$115 M	$177 M
$19 M	$61 M	$111 M	$170 M
$39 M	$124 M	$226 M	$347 M

$1,164 M
$1,164 M
$1,296 M
$132 M
$1,349 M
$2,644 M
$2,644 M
$9,062 M
$9,062 M
$11,706 M
$7,653 M
$3,367 M
$383 M
$3,903 M
$99 M
$11 M
$115 M
$111 M

GA Financing Model

By changing the inputs, one can model different scenarios for the GA Debt financing.

Total Principal ($M)	$ 20,332.32	
Peak Debt ($M)	$ 26,336.62	
Accumulated Interest ($M)	$ 18,129.40	
Max Payment ($M)	$ 2,241.55	
Interest Type	Annualized	Please Select
Final Payment made in Year	2044	
Maximum Payment ($M)	$ (2,241.55)	
Payment Periods	12	
Share of debt & interest	44%	Can Change Sha

Weighted-average interest rate	3.12%	3.63%
		0
Change in ratepayer cost		-2.79%
	2017	**2018**
IESO GA cost forecast + extrapolation	12,095	11,835
Option 1 - Ratepayer cost	9,595	9,327
GA Debt requirement		
Option 1	2,501	2,508
Interest	3.17%	3.69%
Debt Beginning of year	0	2,501
Interest on Debt	0	92
Additional GA Drawdown, end of year	2,501	2,508
Debt End of year	2,501	5,101
Fiscalized (44% share) - $M	**2017-18**	**2018-19**
Interest Cost	10	55

Notes

1. Based on Ministry of Energy model and associated assumptions.
2. GA forecast, ratepayer payments, and interest costs subject to change.
3. To forecast the payment of the remaining balance, a cap of $2.242 bn above the true cost of G still accumulating over this period.

Please only change the yellow cells.

re here

4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0
-2.95%	0.47%	-10.01%	-0.05%	0.32%
2019	**2020**	**2021**	**2022**	**2023**
11,552	12,168	10,844	10,634	10,243
9,051	9,094	8,184	8,180	8,206
2,501	3,075	2,660	2,454	2,038
4.39%	4.39%	4.39%	4.39%	4.39%
5,101	7,825	11,243	14,396	17,482
224	343	493	631	767
2,501	3,075	2,660	2,454	2,038
7,825	11,243	14,396	17,482	20,286

2019-20	2020-21	2021-22	2022-23	2023-24
112	167	232	293	351

GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is p

4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0
18.73%	-4.38%	9.88%	12.11%	13.81%
2024	**2025**	**2026**	**2027**	**2028**
11,128	10,527	10,033	11,043	10,819
9,743	9,316	10,236	11,476	13,061
1,386	1,211	-203	-433	-2,242
4.39%	4.39%	4.39%	4.39%	4.39%
20,286	22,561	24,762	25,645	26,337
890	989	1086	1125	1155
1,386	1,211	-203	-433	-2,242
22,561	24,762	25,645	26,337	25,250

2024-25	2025-26	2026-27	2027-28	2028-29
402	446	482	498	503

aid down, with interest

4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0	0	0
-6.20%	-2.34%	-8.92%	1.52%	-5.26%	-4.60%	-20.95%
2029	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
10,009	9,721	8,654	8,820	8,238	7,756	5,662
12,250	11,963	10,896	11,061	10,480	9,998	7,904
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
25,250	24,116	22,932	21,696	20,406	19,060	17,654
1107	1058	1006	952	895	836	774
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
24,116	22,932	21,696	20,406	19,060	17,654	16,187

2029-30	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**	**2035-36**
482	460	437	412	387	361	334

4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0	0	0
-3.46%	-3.41%	-3.36%	-3.31%	-3.26%	-3.20%	-3.15%
2036	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**
5,389	5,129	4,881	4,645	4,421	4,207	4,004
7,630	7,370	7,122	6,887	6,662	6,449	6,246
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
16,187	14,655	13,056	11,387	9,645	7,827	5,928
710	643	573	499	423	343	260
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
14,655	13,056	11,387	9,645	7,827	5,928	3,947

2036-37	**2037-38**	**2038-39**	**2039-40**	**2040-41**	**2041-42**	**2042-43**
305	275	244	211	177	142	105

4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
0	1	1	1	1	1	1	1
-3.10%	-3.04%	-2.98%	-2.93%	-2.87%	-44.57%	-4.83%	-4.83%
2043	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**
3,811	3,627	3,451	3,285	3,126	2,975	2,831	2,695
6,052	5,868	5,693	5,526	5,368	2,975	2,831	2,695
-2,242	-2,242	-2,242	-2,242	-2,242	0	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
3,947	1,879	0	0	0	0	0	0
173	82	0	0	0	0	0	0
-2,242	-1,961	0	0	0	0	0	0
1,879	0	0	0	0	0	0	0

2043-44	**2044-45**	**2045-46**	**2046-47**	**2047-48**	**2048-49**	**2049-50**	**2050-51**
66	27	0	0	0	0	0	0

4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
1	1	1	1	1	1	1	1	1

2051	2052	2053	2054	2055	2056	2057	2058	2059
0	0	0	0	0	0	0	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60
0	0	0	0	0	0	0	0	0

4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
1	1	1	1	1	1	1	1	1

2060	2061	2062	2063	2064	2065	2066	2067	2068
0	0	0	0	0	0	0	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69
0	0	0	0	0	0	0	0	0

4.30%	4.30%
1	1

2069	2070
0	0
4.39%	4.39%
0	0
0	0
0	0
0	0

2069-70
0

Fiscal Year

Change in Provincial Borrowing

OEP forecast as of Feb. 28

Interest Rate Forecast

IOD from Change in Long-Term Borrowing

2017-18

2018-19

2019-20

2020-21

Total IOD Impact

Reported to Fiscal last Week

GA Debt requirement / Calendar Year	**2017**
Option 1	2501
	12095
	9595

Fiscal Year Equivalent	2017-18
FY Adjusted Debt Requirement	2502
Provincial Borrowing Required	1101
	12030
	9528

2017-18		2018-19	2019-20	2020-21
$M		$M	$M	
	1,101	1,103	1,164	1,307
	OEP	OEP	15-Year Average	15-Year Average
	3.1%	3.6%	4.3%	4.3%
	17	34	34	34
		20	40	40
			25	50
				28
	17	**54**	**99**	**153**
	17	55	102	

2018	**2019**	**2020**	**2021**
2508	2501	3075	2660
11835	11552	12168	10844
9327	9051	9094	8184

2018-19	2019-20	2020-21
2506	2644	2971
1103	1164	1307
11764	11706	11837
9258	9062	8866

From: Bruno Amara
To: John Kim
Subject: GA Financing - Equity Injection Discussion ed.docx
Date: Wednesday, March 22, 2017 1:40:06 PM
Attachments: GA Financing - Equity Injection Discussion ed.docx

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Hi John

Re Kaitlin's note and our balancing act, how about attached if we want to provide some feedback.

We update the chart we used based on the chart that Adam pulled together, and add some language to reflect our discussion this morning with TBS. I think this is minimal based on comments we already provided on the chart and our TBS discussion, but it does add some value. If that makes sense I could get Adam to review chart. I relabelled some of the arrows to make it more generic.

We could also provide this to TBS as follow-up to this morning's conversation. We said we would provide more details. It is mainly the chart that I think would help them. Maybe it's too early to get into the GA Financing model and all the issues we have been discussion e.g., interest recovered/capitalized etc.

Bruno

GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to purchase the GA Asset from the IESO it will obtain financing from two sources
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from an equity injection from the Province**
        - 5% from capital markets

TIMING:

- **Assumed implementation: July 1, 2017 (to be confirmed)**
- **April:** Legislative Changes Proposed
- **May 1**: GA smoothing incorporated into RRP rates
- **May – August**: OPG/IESO bridge financing in place to manage debt
- **September**:
    - SPV borrowing begins and would continue on a quarterly basis (ie. Sept/Dec/Mar/June)
        - Bridge financing is used to fund the GA shortfall in the interim months
    - Province would fund equity injection as required by OPG (quarterly basis)

POTENTIAL PROVINCIAL PROCESS

Illustrative Timeline/ Approvals Process

- OPG includes equity injection requirements in Business Plan
    - Target delivery to the Province in November of each year
    - Incorporate forecasted equity injection requirements for Province's fiscal year into business plan (March 31 year-end)
- Province seeks TB/MBC approval for equity issuances as part of Business Plan concurrence process
    - Target February TB date each year to ensure approvals in place as of April 1st of each year
    - TB approval would provide approval for OPG to issue up to x amount of shares within the next year (would need to cover approvals required in articles)
    - TB approval would provide appropriation to ENE/MOF for equity injections to OPG

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- TB approval would delegate authority [to minister/deputy minister] to execute equity injections

- 2017 Document Approvals Process
  - ENE to report back in Spring 2017 with respect to GA Financing
  - Under current timing, approval for appropriation for ENE/MOF for equity injections to OPG would be post 2017 Document
  - TB / MBC approval is being sought as part of 2017 PRRT for other components of Ontario Fair Hydro Plan that have a fiscal impact.

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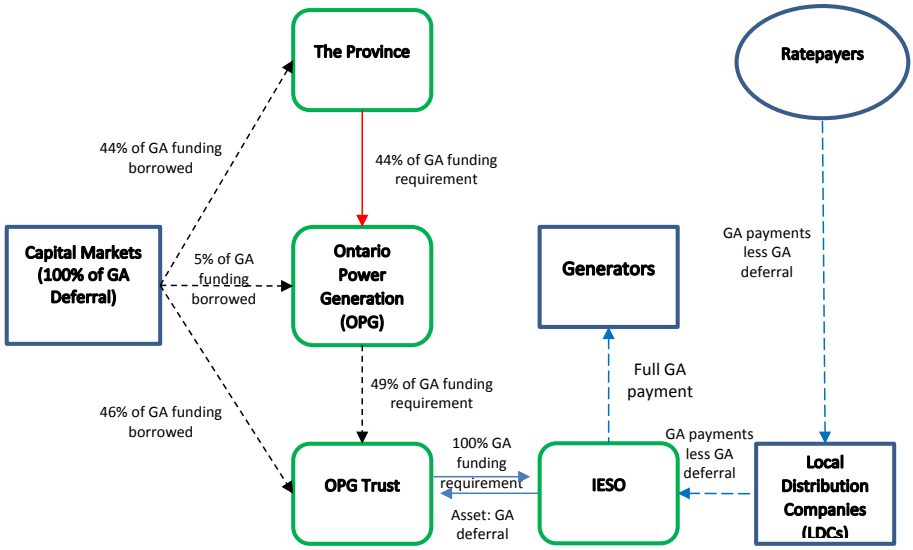
Provincial Mechanism

- Is there a more granular mechanism on the loan side? (ie. OPG provides x days notice that they require x amount, x person needs to sign off, etc.)

Appendix – Illustrative Structure Annual Financial Flows in early years



From:	John Kim
To:	Selena Esmail (MOF); Daniel Tiburcio (MOF)
Cc:	Bruno Amara
Subject:	GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx
Date:	Thursday, March 23, 2017 3:39:44 PM
Attachments:	GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Hi Selena, Daniel,

We have the attached deck with footers that we hope meet the protocol in sending information to FAO. Could you let us know if it does fit with the protocol.

We have sent a version of this deck up the line and assume that this had gone up to the Minister for something that had gone to Cabinet.

Thanks,

John.

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

March 2017

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**)* March 1 Deck

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred as per its modelling as at March 1, 2017.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario). If interest is paid and passed through in each period, more GA would have to be deferred to achieve the same net rate impact; however, there would be lower cumulative interest costs than modelled.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)*

March 1 Deck

- Ministry of Energy modelling estimates provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred as per its modelling as at March 1, 2017.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario). If interest is paid and passed through in each period, more GA would have to be deferred to achieve the same net rate impact; however, there would be lower cumulative interest costs than modelled.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	20,978
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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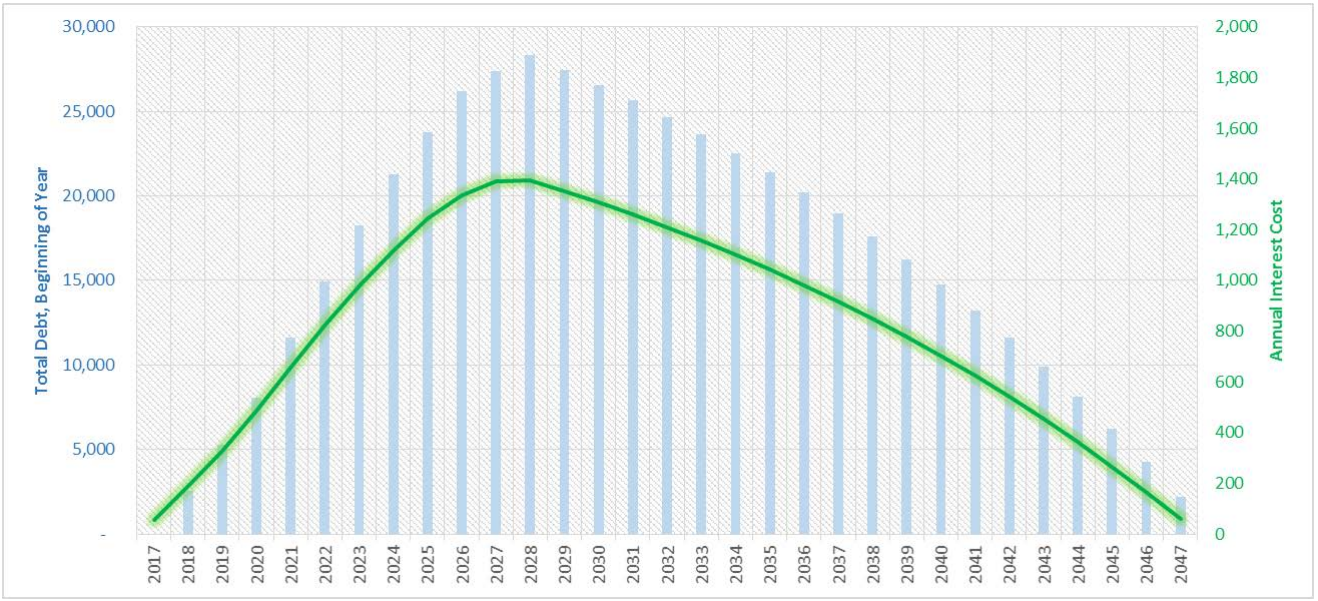
APPENDIX

Effective Date: January 1, 2017

GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

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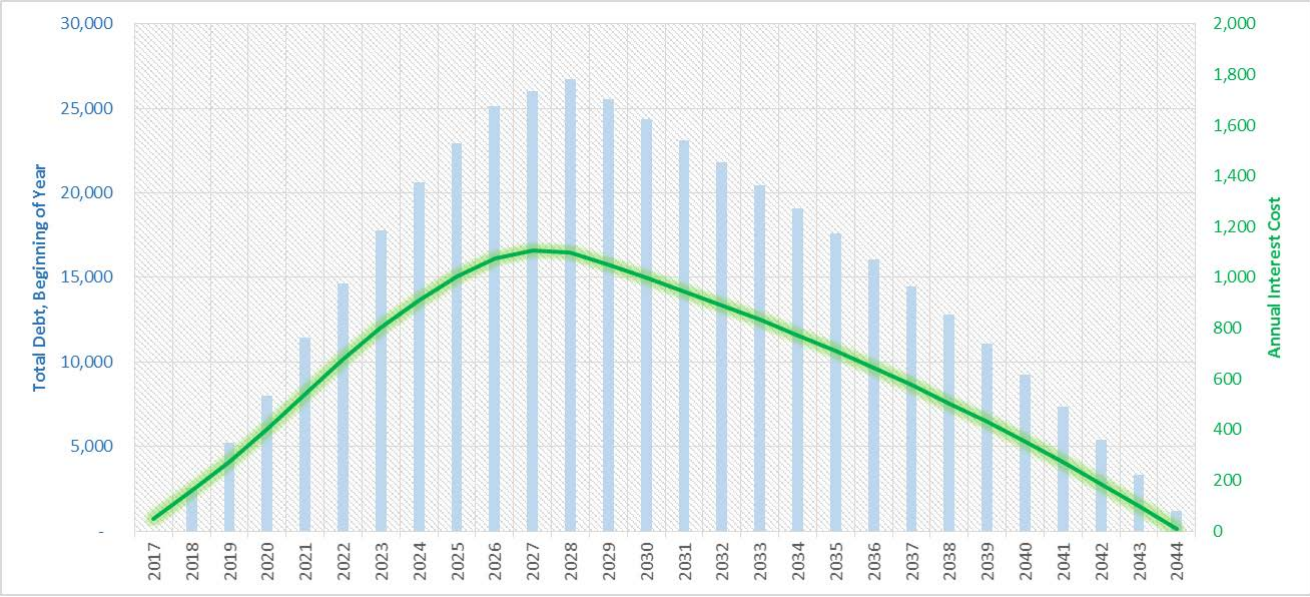
GA Financing: 4.2%

(Calendar Year Basis)
*(**Effective January 1, 2017**)*

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

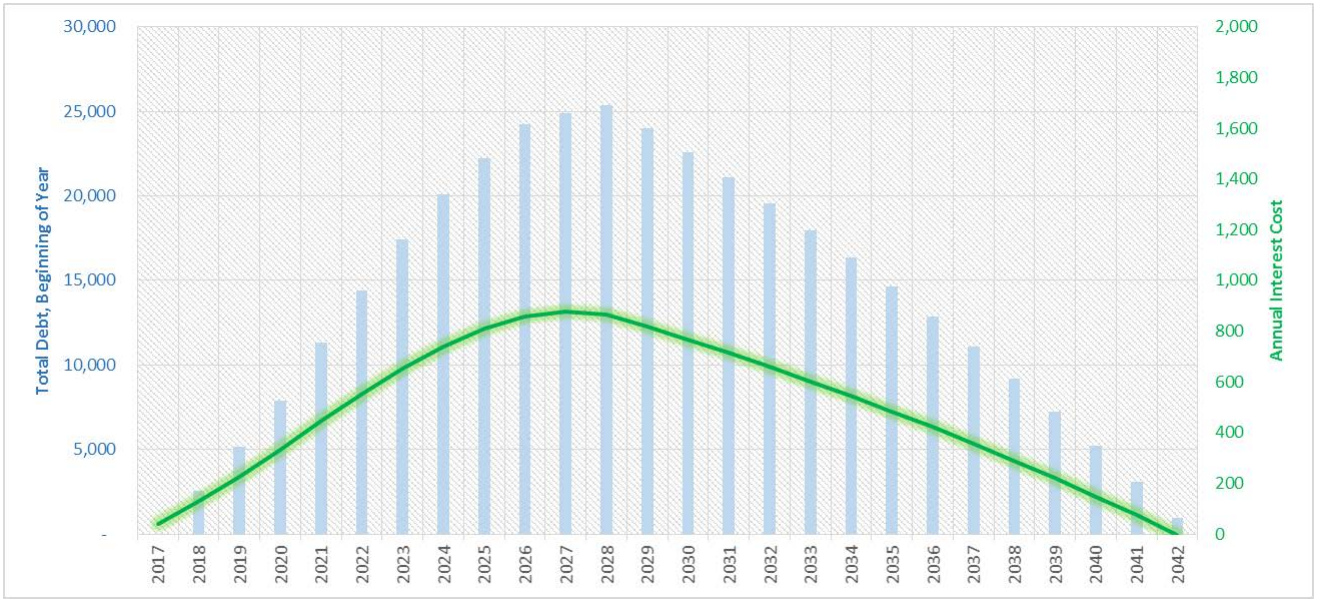
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	17,367
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 3.5%

(Calendar Year Basis)
*(**Effective January 1, 2017**)*

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

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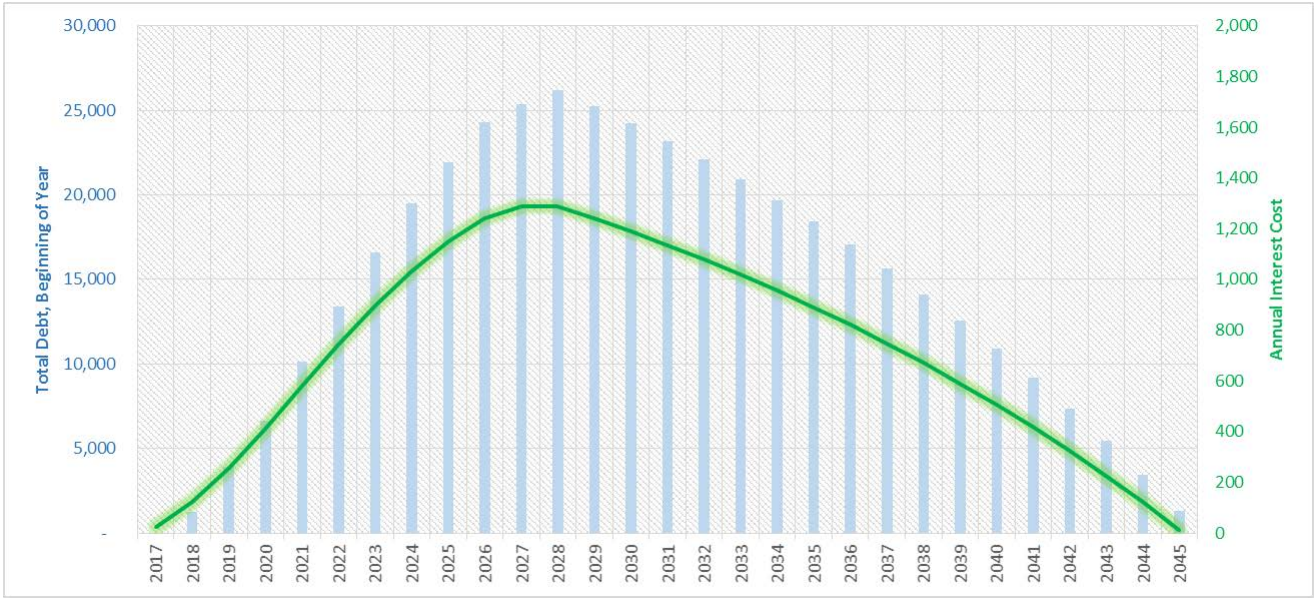
APPENDIX

Effective Date: July 1, 2017

GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

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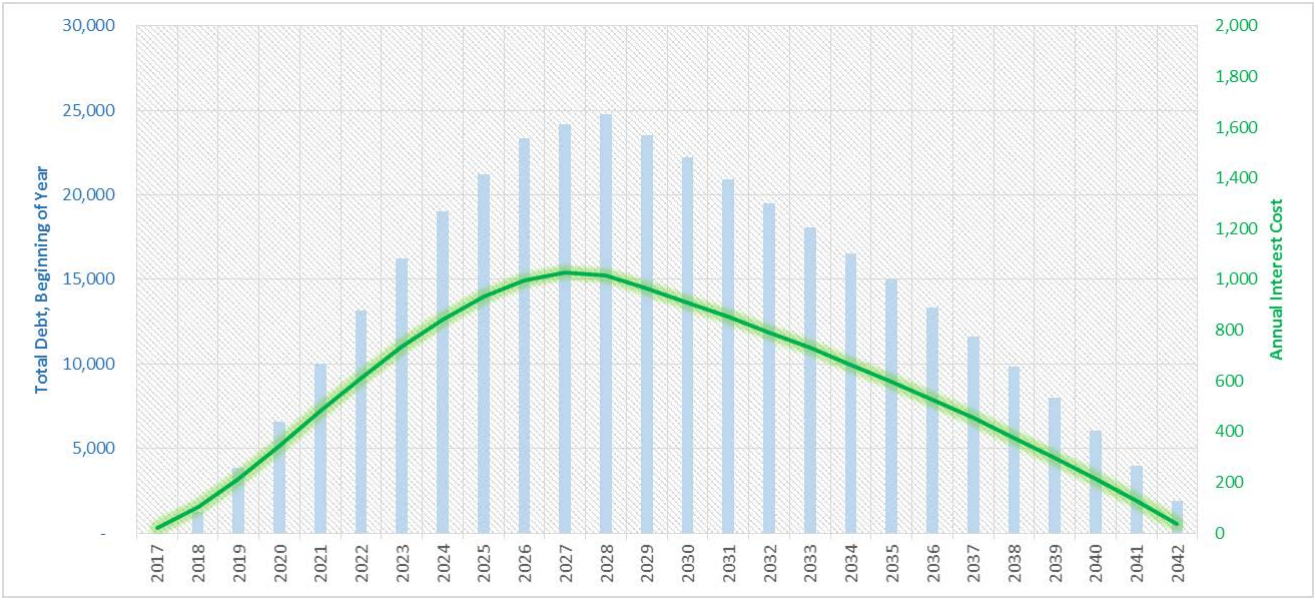
GA Financing: 4.2% *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

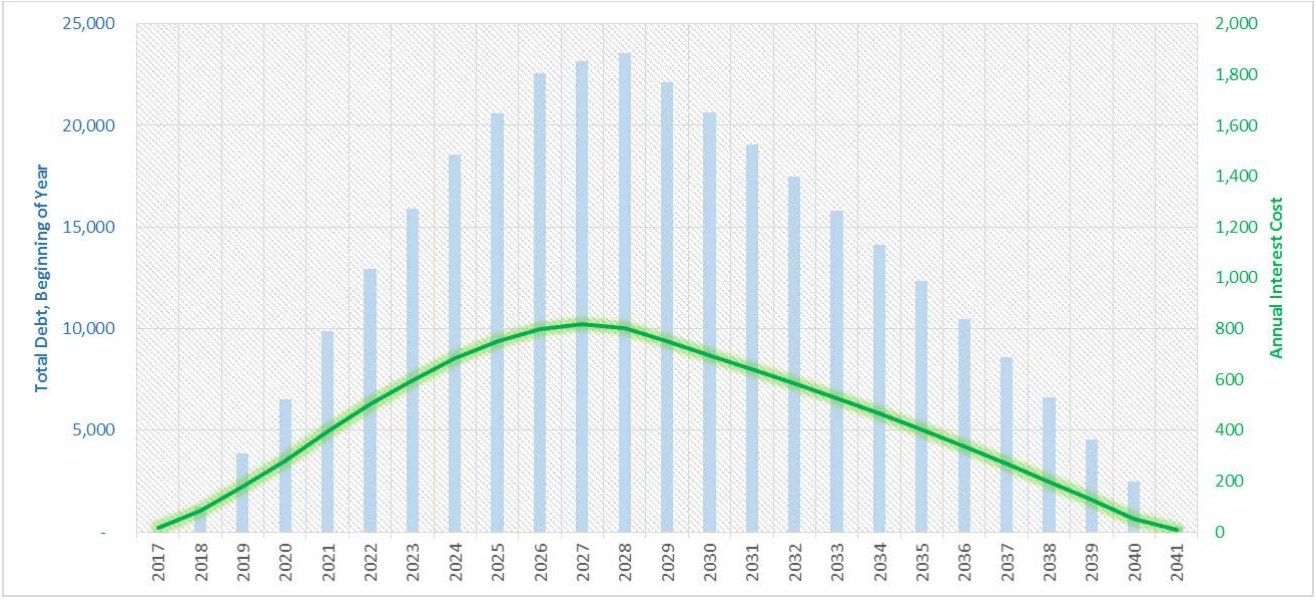
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 5%

(Calendar Year Basis)
(Effective July 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

Provided in Response to Request from the Financial Accountability Officer: Confidential -- subject to the disclosure restrictions under the Cabinet records order-in-council

From: John Kim
To: Bruno Amara
Subject: GA Financing - Interest Cost Scenarios - Mar 1 Deck v6.pptx
Date: Friday, March 10, 2017 2:25:22 PM
Attachments: GA Financing - Interest Cost Scenarios - Mar 1 Deck v6.pptx

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Fyi, heard from Gadi's EA that he really liked this deck.

DRAFT

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

Corporate and Electricity Finance Division
March 6, 2017

DRAFT

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**)* March 1 Deck

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred, per its March 1 Cabinet submission.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)* *March 1 Deck*

- Ministry of Energy modelling estimates provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred in its March 1, 2017, Cabinet Submission.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

APPENDIX

Effective Date: January 1, 2017

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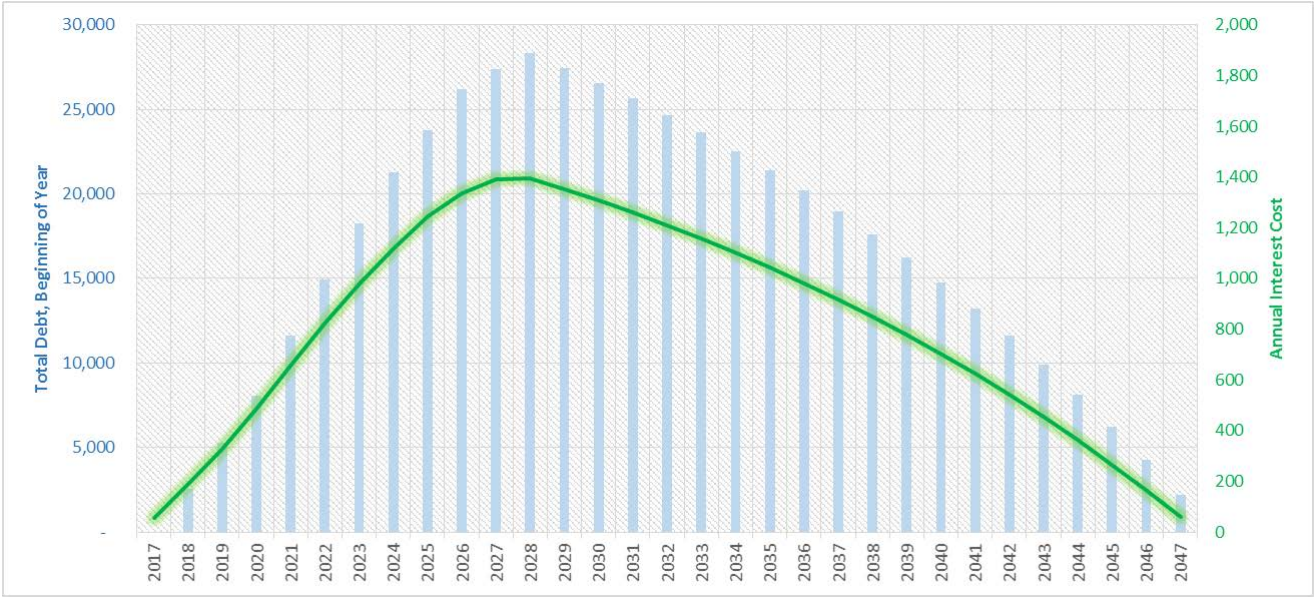
GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

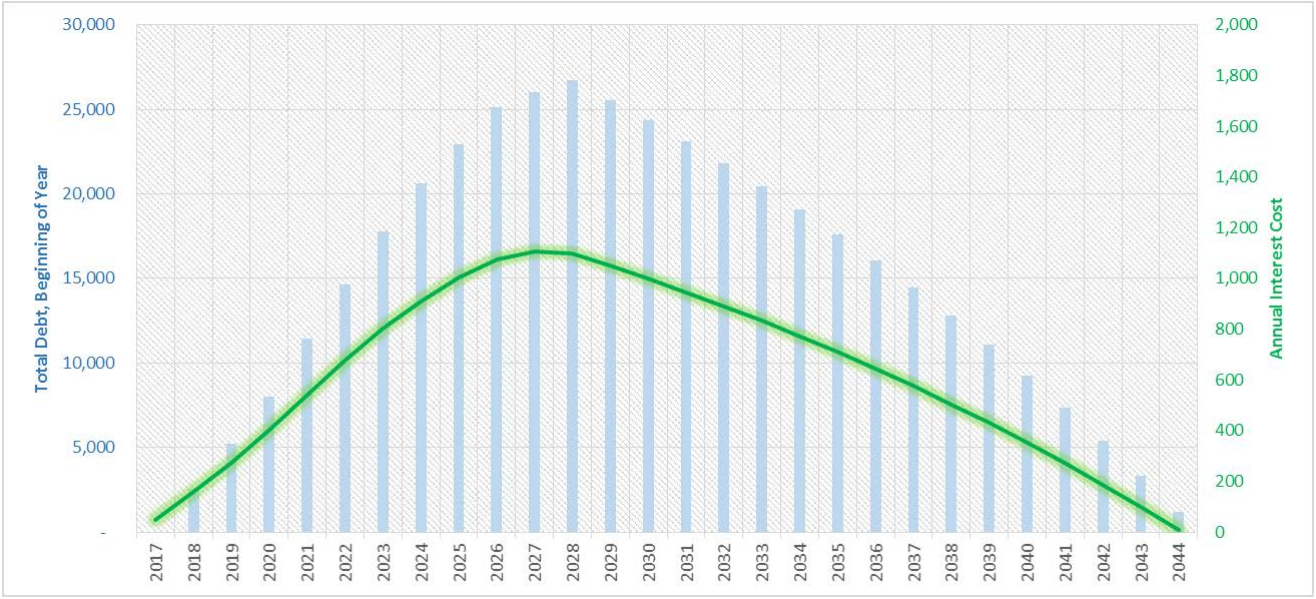
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	**17,367**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

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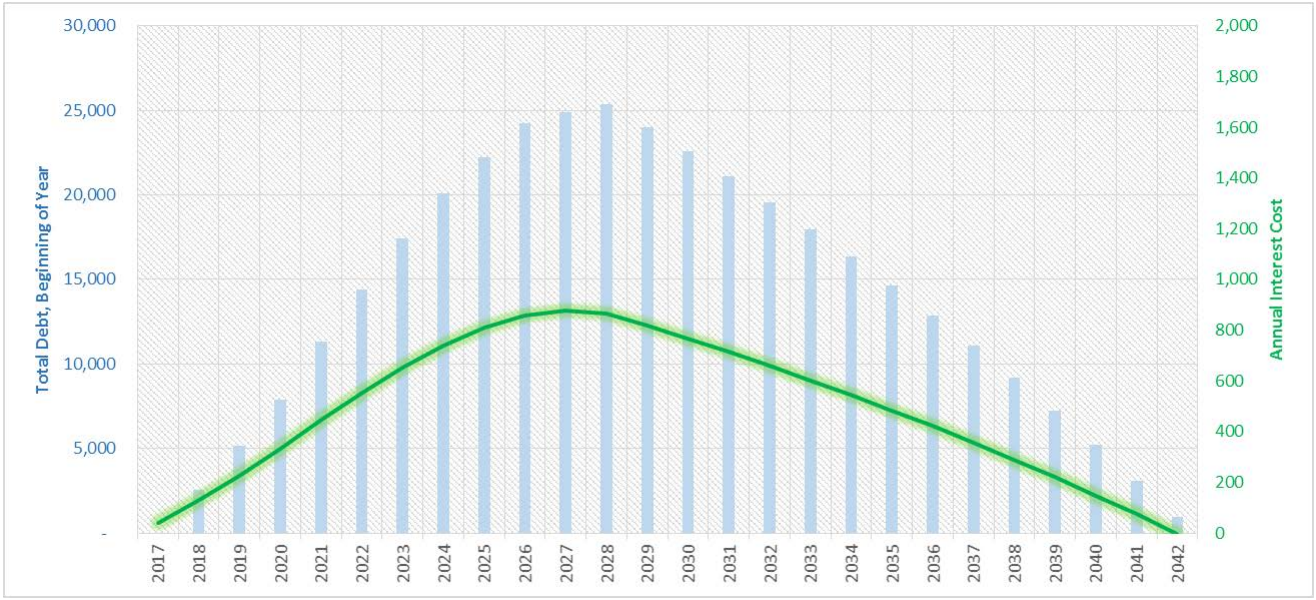
GA Financing: 3.5%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

APPENDIX

Effective Date: July 1, 2017

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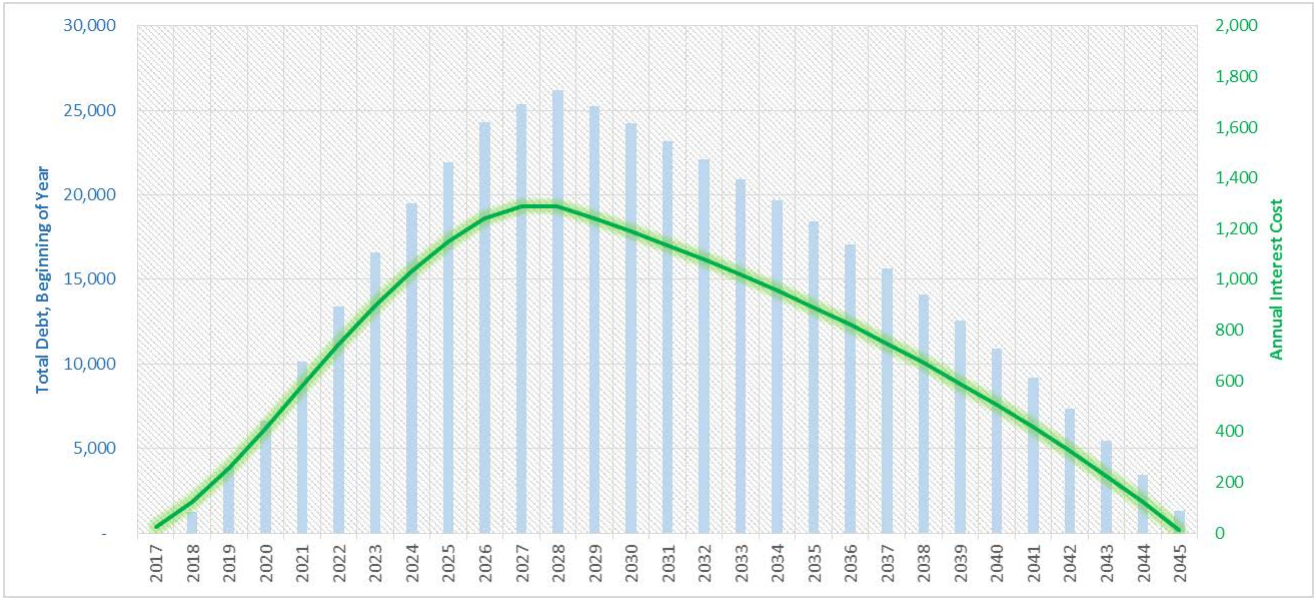
GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

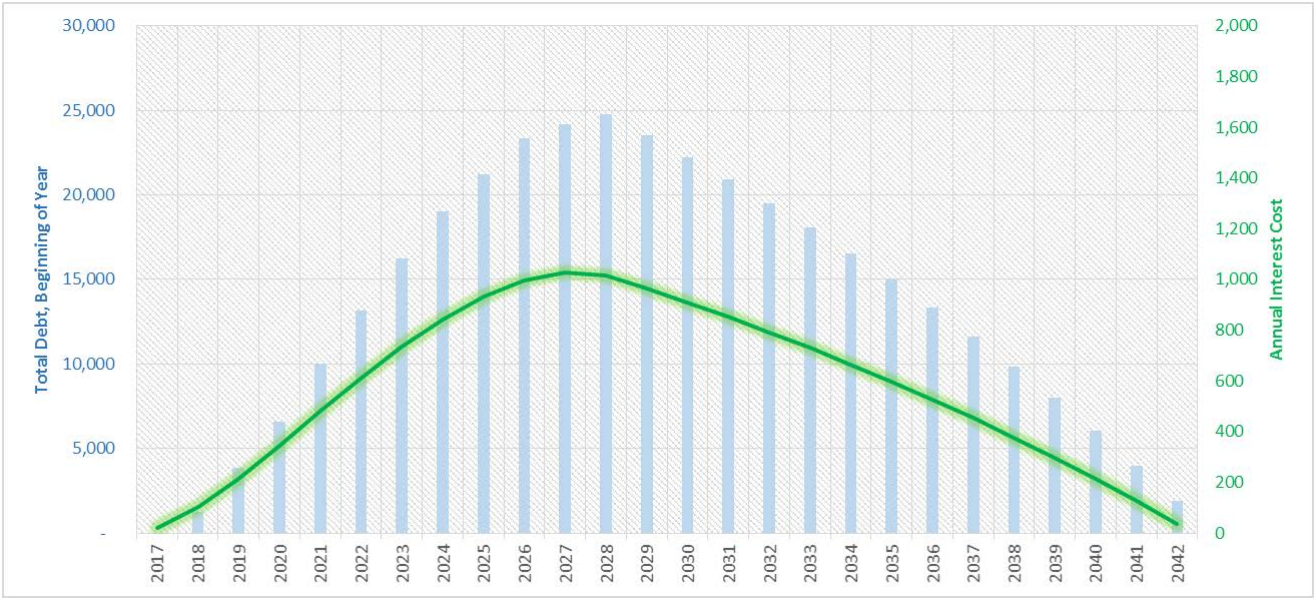
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

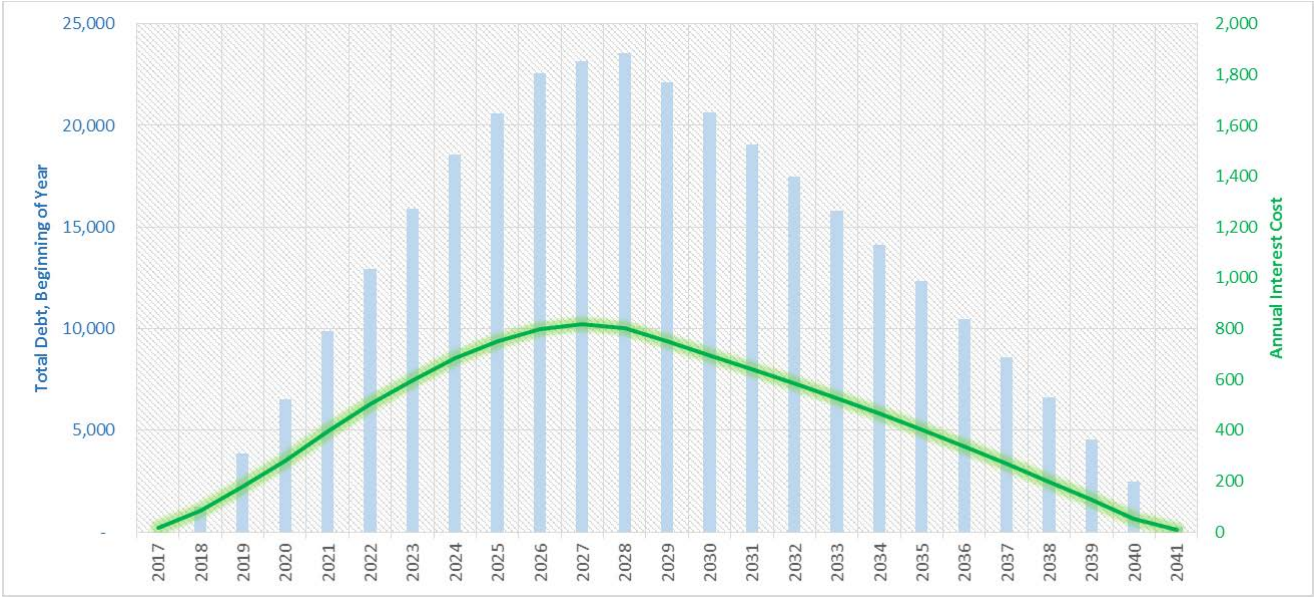
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 5%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

From: John Kim
To: Shajee Kathirgamanathan
Subject: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW (002).pptx
Date: Thursday, March 23, 2017 5:23:45 PM
Attachments: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW (002).pptx

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

March 2017

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**)* March 1 Deck

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred as per its modelling as at March 1, 2017.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario). If interest is paid and passed through in each period, more GA would have to be deferred to achieve the same net rate impact; however, there would be lower cumulative interest costs than modelled.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)*

March 1 Deck

- Ministry of Energy modelling estimates provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred as per its modelling as at March 1, 2017.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario). If interest is paid and passed through in each period, more GA would have to be deferred to achieve the same net rate impact; however, there would be lower cumulative interest costs than modelled.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	20,978
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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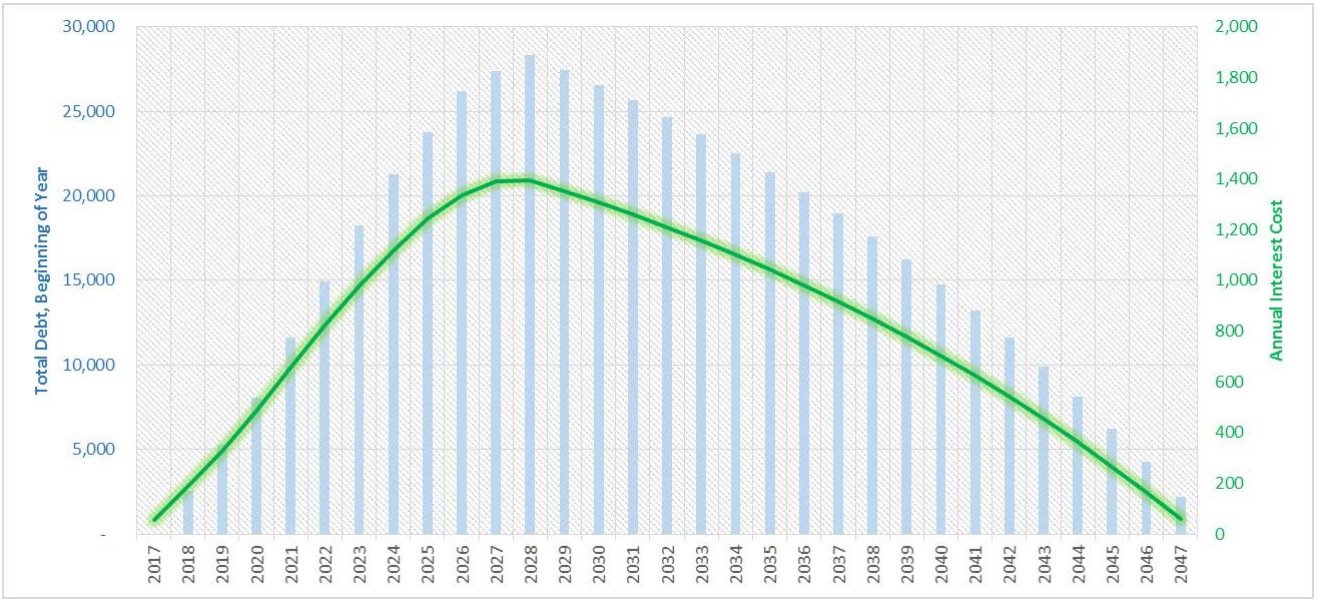
APPENDIX

Effective Date: January 1, 2017

GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

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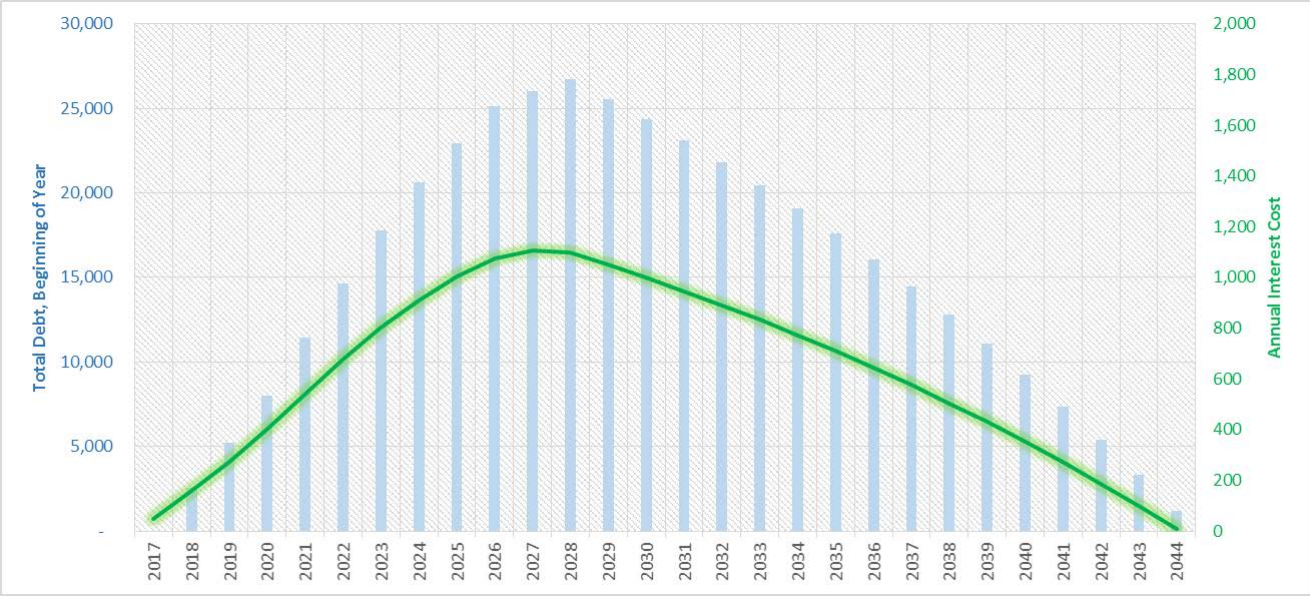
GA Financing: 4.2%

(Calendar Year Basis)
*(**Effective January 1, 2017**)*

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

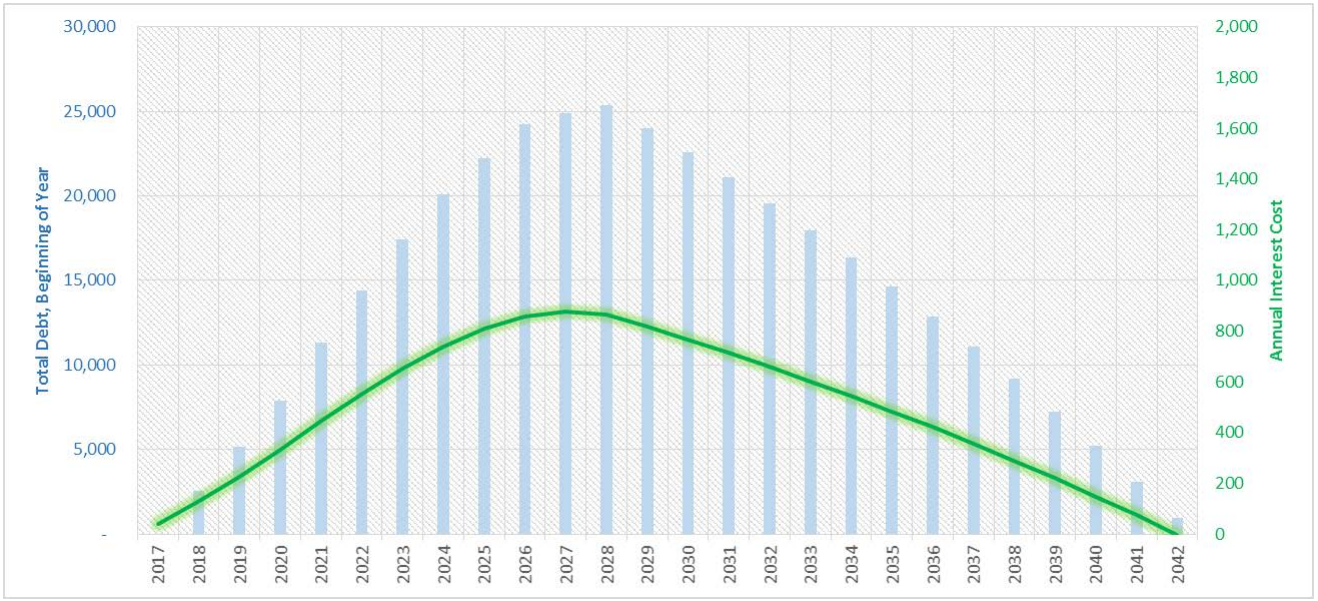
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	17,367
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 3.5%

(Calendar Year Basis)
*(**Effective January 1, 2017**)*

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

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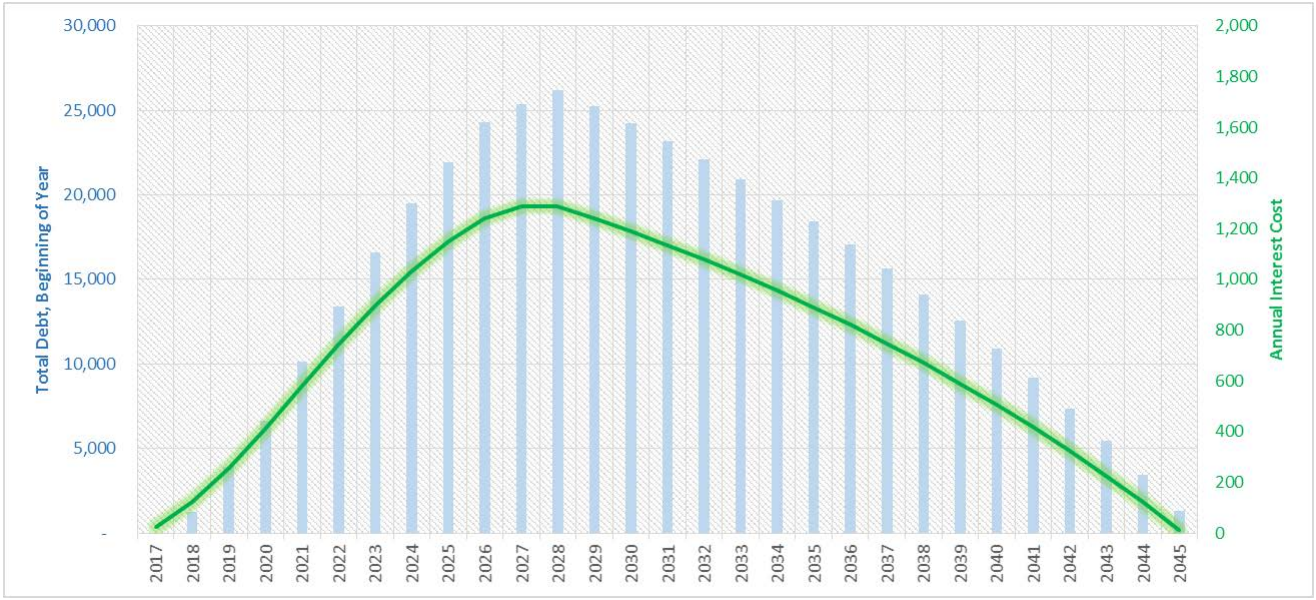
APPENDIX

Effective Date: July 1, 2017

GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

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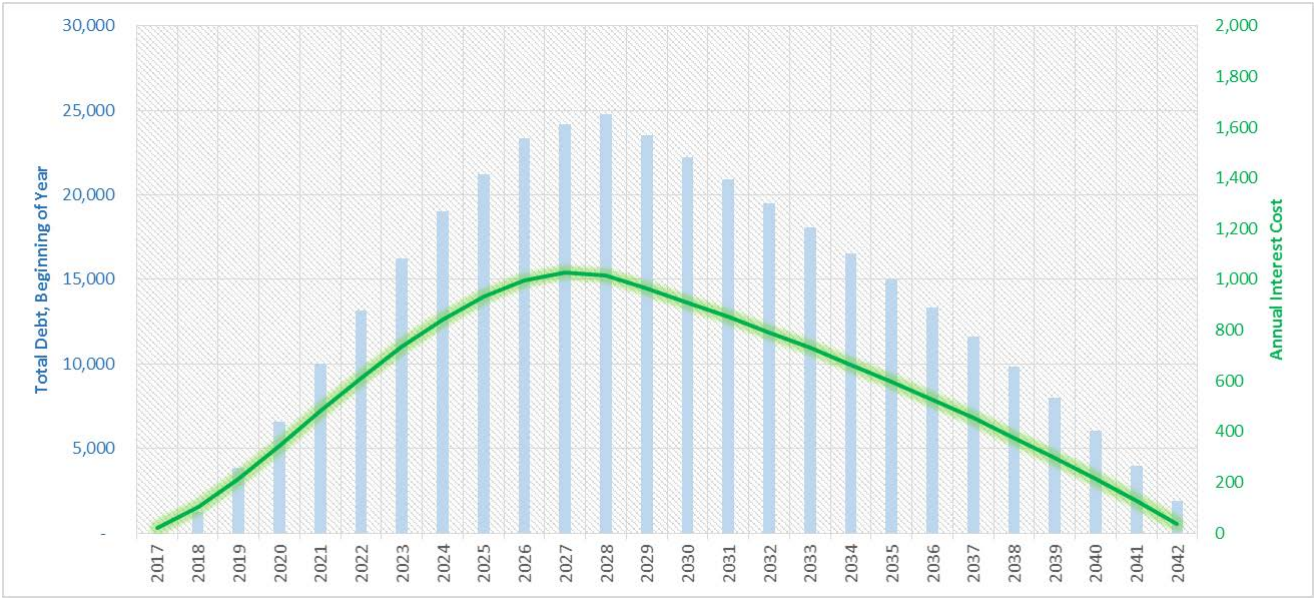
GA Financing: 4.2% *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

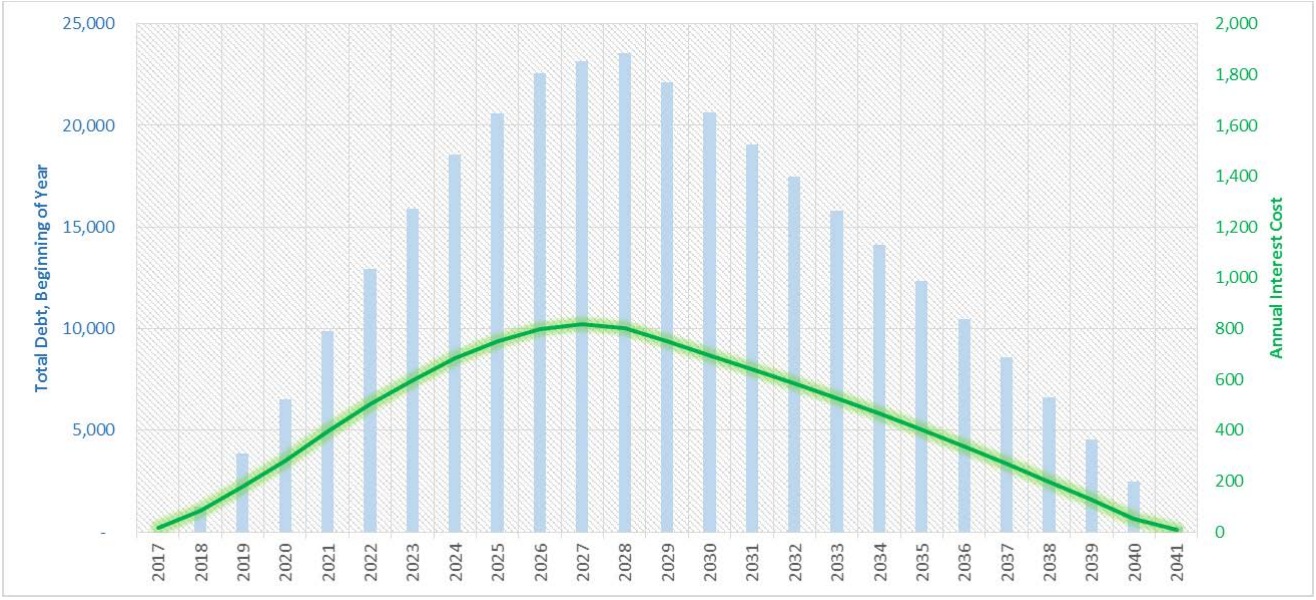
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 5%

(Calendar Year Basis)
(Effective July 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

Provided in Response to Request from the Financial Accountability Officer: Confidential -- subject to the disclosure restrictions under the Cabinet records order-in-council

From:	Montgomery, Kaitlin (MOF)
To:	John Kim
Subject:	GA Financing / TB Sub
Date:	Monday, April 24, 2017 10:18:13 AM
Attachments:	Finance Structure_GA_Rationale for 51%.docx

Hey John,

Just following up on our conversation Friday. You had asked about the rationale for certain levels of financing – passing this note along that we just received from OPG. Let me know if you have further questions on this.

Secondly, I'm starting to pull together materials for the TB submission. The first is seeking appropriation for the equity injections, second is any PILs exemptions that the Province is comfortable with. Lastly, Scott thought you guys might also want something built into the submission about increased borrowing requirements of the IESO – would you be able to draft something for inclusion in the submission on this (if required)?

Let me know what you think.
Kaitlin

CONFIDENTAL **April 18, 2017**

Ontario Power Generation

Issue: OPG has indicated that for the Trust to be consolidated into OPG there is a need to have at least 51% of the debt financing of the Trust originate directly from the external market. This requirement is supported by specific technical guidance on the topic as set out below.

IFRS 10 – Consolidated Financial Statements requires an investor to consider whether there are other parties who are acting on behalf of the investor by virtue of their relationship with it. That is, IFRS 10 requires consideration of whether the other parties (i.e. OPG) are acting as de facto agents for the investor (i.e. Province). If OPG is considered a de facto agent, the consolidation accounting objective will **not** be met.

There are a series of references in IFRS 10 (Section B75) that support this conclusion. Each of these elements must be examined in their totality to successfully address the consolidation principal of the Trust. The importance of each element is amplified due to the fact that OPG is a related party to the Province, which increases the importance of other tests being met. These tests include:

a) a party that received its interest in the investee as a contribution or loan from the investor.
OPG will receive a 44% equity injection from the Province of Ontario, indirectly through the Ontario Financing Authority. Given that currently, the majority (currently 51%) of the Trust debt will be from External Markets and not the Province, it can be argued that OPG did not receive the majority of its interest in the investee as a contribution or loan from the Province. This criterion is not met and shows that OPG is a principal, not a de-facto agent.

b) a party that has agreed not to sell, transfer or encumber its interests in the investee without the investor's prior approval
There is a proposed clause that the Trust cannot be wound up without approval from the Minister of Energy, this criterion is met.

c) a party that cannot finance its operations without subordinated financial support from the investor.
OPG can finance its operations without subordinated financial support from the Province – criterion is not met.

d) an investee for which the majority of the members of its governing body or for which its key management personnel are the same as those of the investor.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

e) a party that has a close business relationship with the investor, such as the relationship between a professional service provider and one of its significant clients.
OPG is a related party of the Province of Ontario, therefore this criterion is met.

Given the number of factors met above, there may be a view that OPG could be considered a de facto agent of the Province through its related party relationship (4 out of 6 items are met). It is of vital importance, and as concurred by EY, that the majority of the debt in the Trust is not more than 44% funded by the Province (note that the remaining 5% of debt has to be funded externally by OPG in order to show that OPG has equity that is not sourced from the Province at risk). If the debt in the Trust is seen by the External Auditors as being principally funded by the Province, OPG would fail 5 out of 6 criteria above and be considered a de facto agent. As a result, proposed consolidation accounting would fail.

From:	Bruno Amara
To:	Felix Fung (MOF)
Cc:	James Strang (MOF); Adam Prokop
Subject:	GA Financing
Date:	Thursday, March 23, 2017 3:43:50 PM
Attachments:	GA Structure v12Clean To TBS.docx

Hi Felix

Per our discussion yesterday morning I've attached an internal draft staff note on GA Financing (Doc pw). Please note that at this point this is not ADM approved so advise to keep it close. It is based on our understanding to date based on various discussions. Some parts of the mechanism are still speculative. As you noted ENE will come back in Spring with further details. And implementation discussions are ongoing among involved parties including OPCD. But hopefully this will be of some help for now. Happy to discuss.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a proposed cap of $2.242B on the annual additional cost over the GA to lessen the burden on ratepayers.

- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in compounding) or if interest will be recovered from ratepayers on an on-going basis.
    - If interest payments are made by ratepayers on an on-going basis debt costs would be lower, however this would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of principal needs to be larger to offset this effect.
- It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers immediately or recognized at the very least as a future benefit to the Province, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that the IESO be required to recover the costs associated with this asset even after selling it.
    - To do this the IESO would need to sell the asset in order to settle its arrangements with generators, and ensure generators are not affected by the deferral.
        - Alternatively, the IESO could simply borrow funds (using the regulatory asset as collateral), but this poses risks for both consolidation on public accounts and credit ratings.
        - With respect to the credit rating risk, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust", which would purchase the regulatory asset from the IESO.
    - The purchase would be funded by debt from the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through debt from the capital markets (5%) and an equity injection from the Province (44%).

    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper sent to the Deputy Minister of Energy on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The equity injection could lead to increasing, and then stabilizing dividend payouts in consistent with OPG's's risk profile and comparable business entities.
    - Principal and interest payments flowing from the ratepayers through the IESO and the Trust could be paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about 10 years' time, eventually reaching a cap of $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split, as dividends allow OPG to reduce its retained earnings thereby reducing equity.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts, potentially offsetting ratepayer benefit of the GA deferral mechanism.
- The financing structure split between equity (44%) and debt (5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

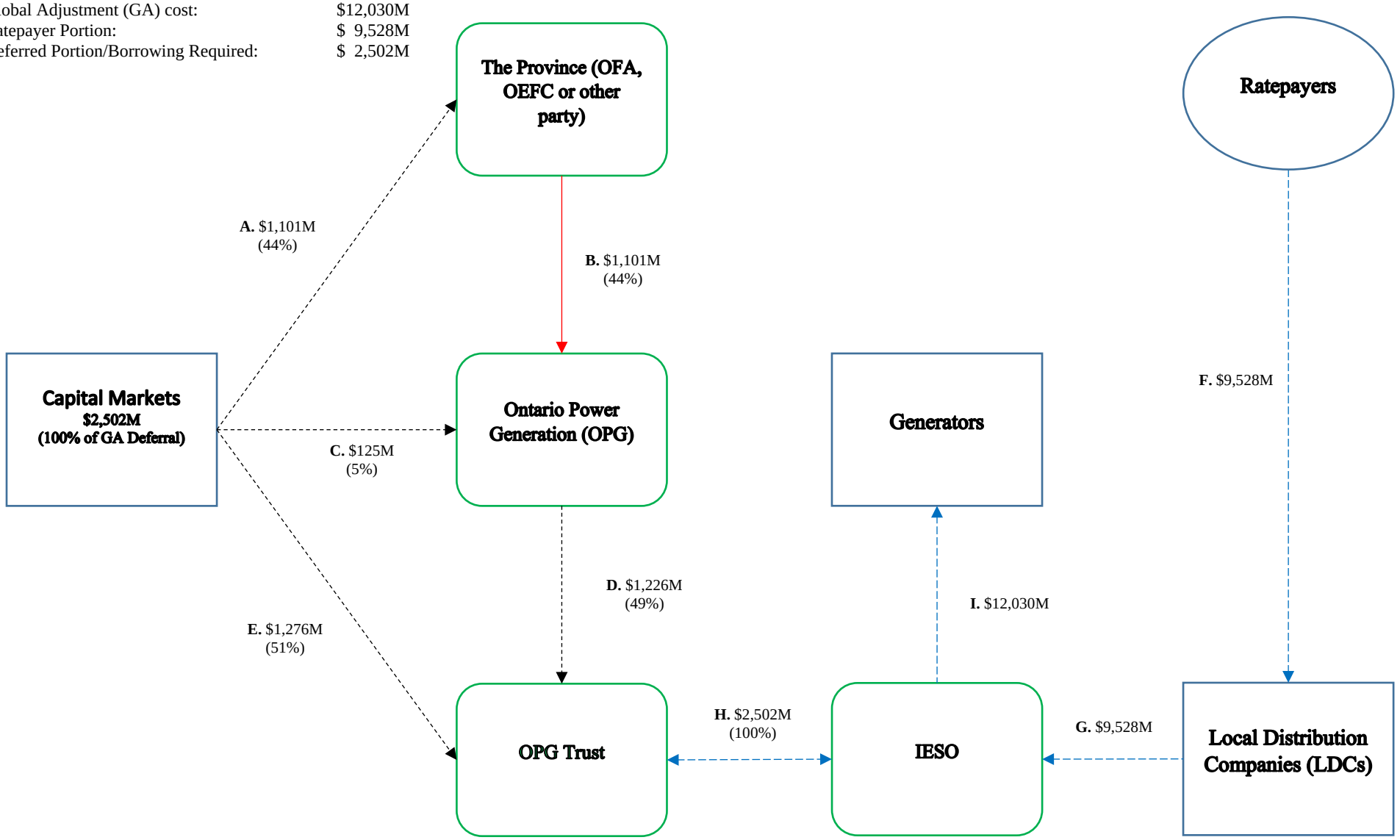
Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments, depending on legislative and regulatory approval, that would impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers on an on-going basis:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers along the way. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be made. Overall, there would be no fiscal cost, and less debt would build up over time due to the elimination of the compound effects on interest.
    - **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which essentially proposes to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.

- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.
- Option 4: **No collection from ratepayers but deferral of expense recognition (Same as Energy's analysis in its Cabinet Submission)**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books and recognize as a regulatory asset, thus eliminating the fiscal impact.
    - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
    - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
    - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
    - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
    - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
    - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
    - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M



Setting up the Trust

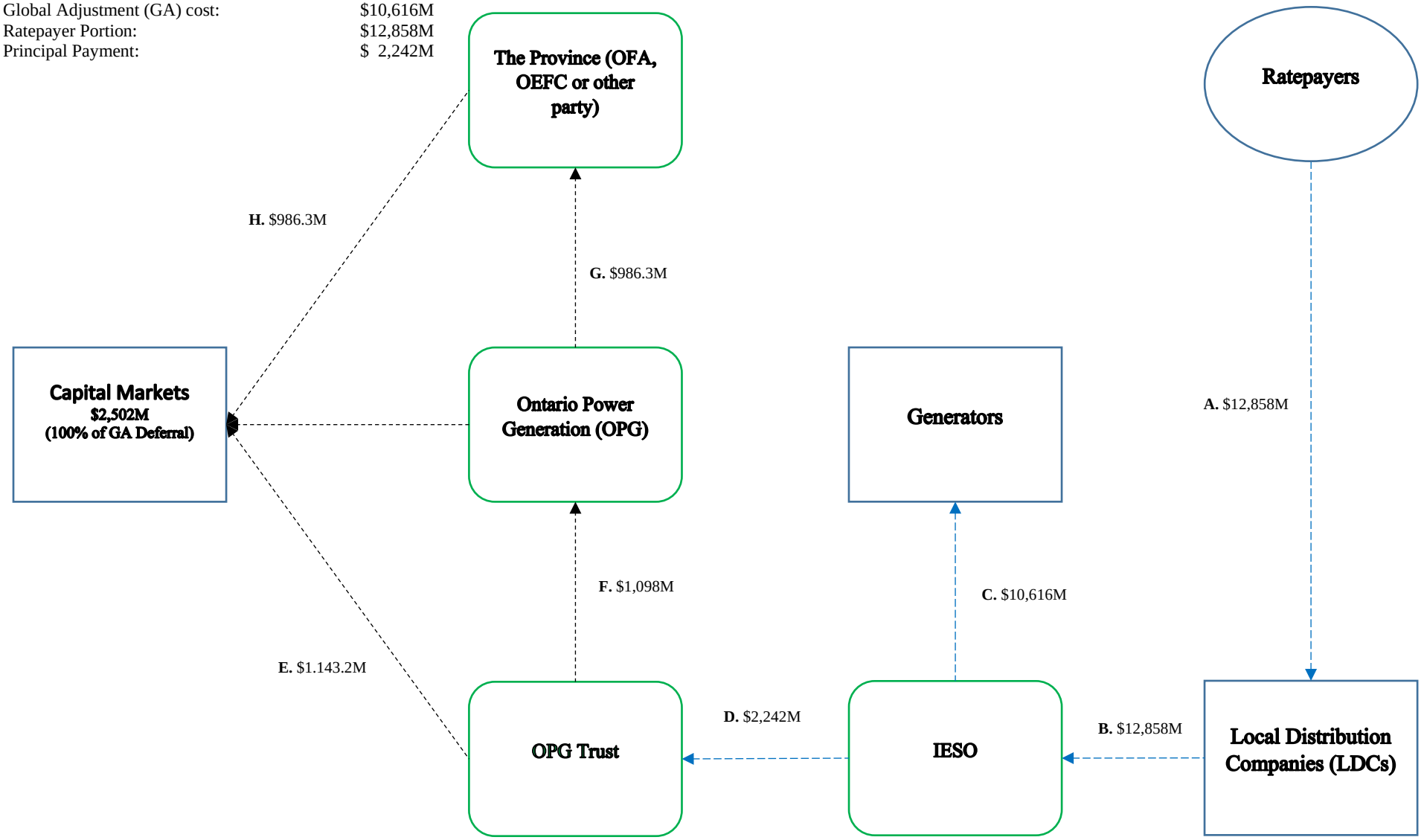
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism

F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

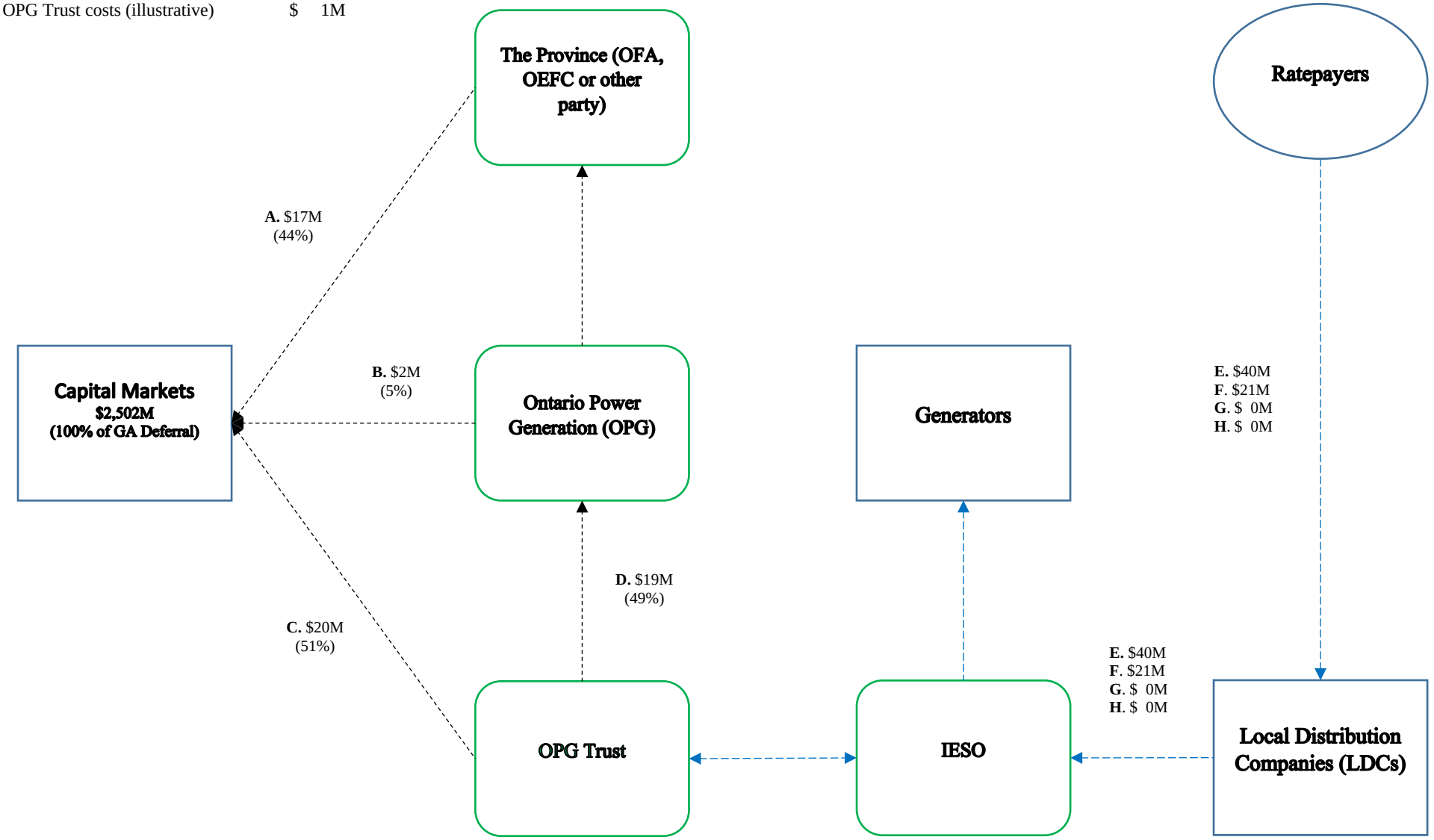
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Corporate and Electricity Finance Division
Ontario Financing Authority
March 17, 2017

From:	John Kim
To:	Ronald Kwan
Cc:	Bruno Amara; Adam Prokop; Gavin He
Subject:	GA Structure v12Clean.docx
Date:	Friday, March 17, 2017 10:50:27 AM
Attachments:	GA Structure v12Clean.docx

Hi Ron,

Pls. see attached on the GA structure, as we understand things.

It's very complex and not sure if an average person on the street would be able to follow.

Thanks,

John.

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

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- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
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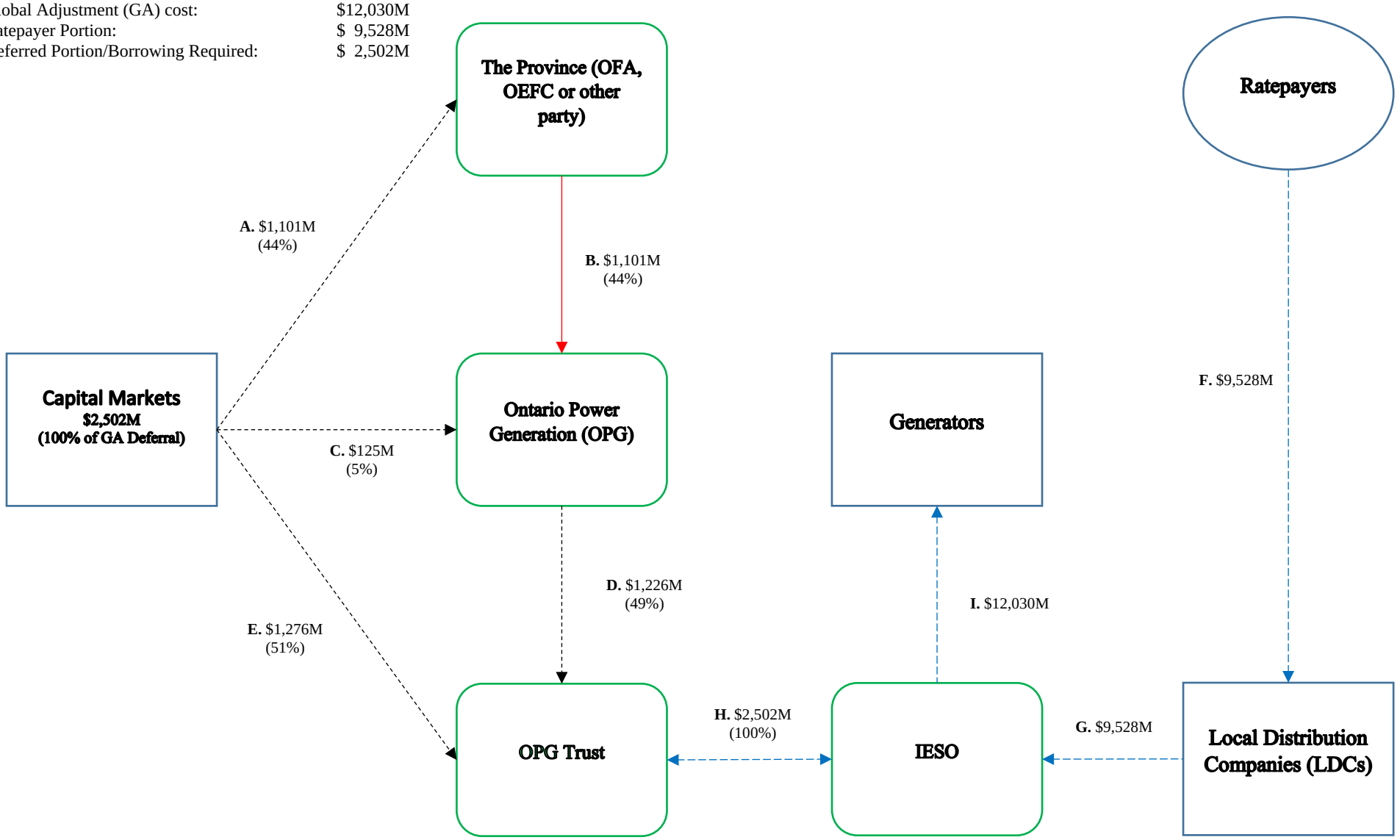

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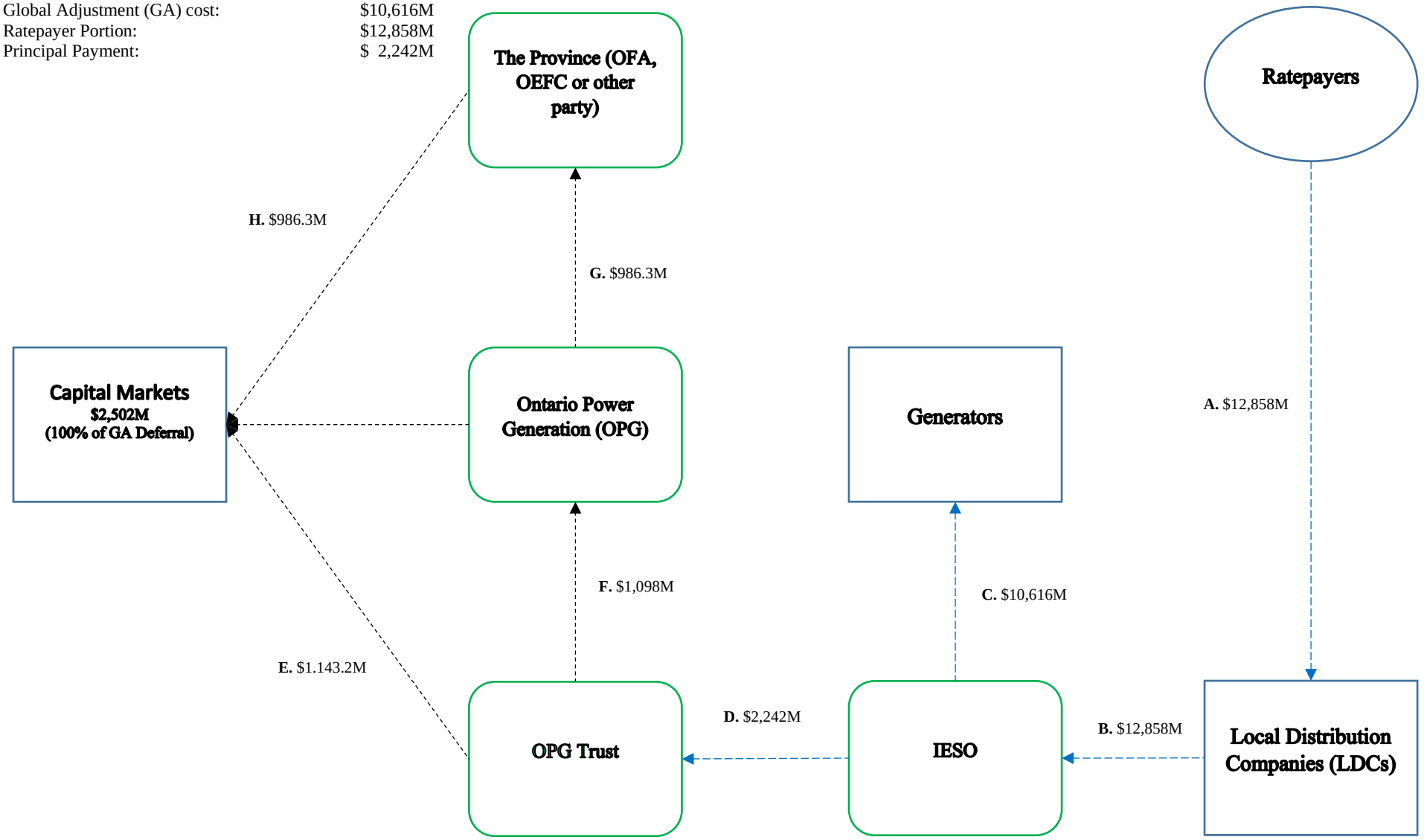

Collection of the GA

A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
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G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
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Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
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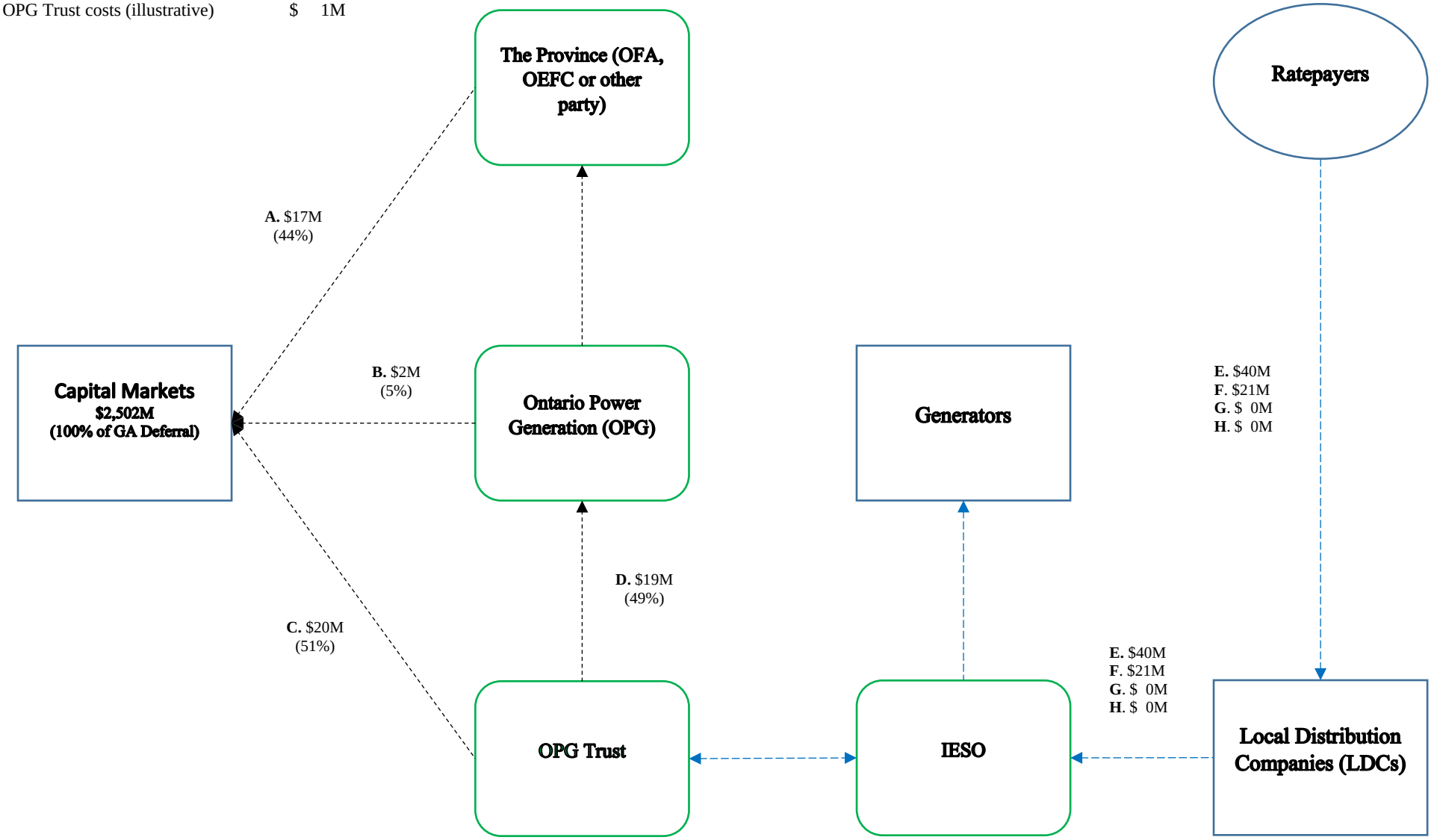

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Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Corporate and Electricity Finance Division
Ontario Financing Authority
March 17, 2017

From:	Bruno Amara
To:	John Kim
Cc:	Adam Prokop; Shajee Kathirgamanathan
Subject:	GA Structure v7.docx
Date:	Friday, March 10, 2017 5:24:37 PM
Attachments:	GA Structure v7.docx

Hi John

See attached note from Adam. A good summary of a complex subject. We have reviewed and made a few minor edits to Adam's note. But I would like to take a bit more time on Monday to review again and ask questions. As discussed, I think Adam's note and SIFB's complement each other. Adam's note focusses on explaining the proposed plan and the proposed financial structure. SIFB's does some of this but also focusses on mechanics of what the Province needs to do to make this happen. I.e. setting up an operating asset. They could be merged to one note, with a bit of time.

Thanks
Bruno

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a cap on the annual additional cost over the GA to lessen the burden on ratepayers

- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the Province would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized or if interest will be recovered from ratepayers on a frequent basis.
    - Having "interest on interest" (i.e., compounding effect) with deferrals on interest payments increases peak debt by approximately $5B and leads additional accumulated interest costs, based on preliminary estimates.
    - However, if interest payments are made by ratepayers on a frequent basis, it lessens the relief provided by the GA deferral mechanism.
- Furthermore, it has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers or recognized at the very least, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset by IESO, likely as a regulatory asset that gives IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - The proposal states that IESO would be required to collect the costs associated with this asset even after selling it.
    - IESO needs to sell the asset in order to secure cash to settle its arrangements with generators, thus ensuring that generators are not affected by the deferral.
        - Alternatively, IESO could simply borrow funds (using the regulatory asset as collateral), but this has implications for consolidation on public accounts including the impact on credit ratings.
        - On the other hand, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust" that would purchase the regulatory asset from IESO.
    - The purchase would be funded by the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through a loan from the capital markets (5%) and an equity injection from the province (44%).

    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper released on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The rationale behind an equity injection is that it could lead to increasing, and then stabilizing, dividend payouts in commensurate with the Ontario Power Generation's risk profile and comparable business entities.
    - Principal payments and interest flowing from the ratepayers through IESO and the Trust could be relayed back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in an estimated ten years' time, eventually reaching a cap of an estimated $2.242B in principal and interest per year based on Energy's March estimates (with interest on interest).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted 55%-45% debt to equity split.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts.
- The financing structure split between equity (44%) and debt (56% - 5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

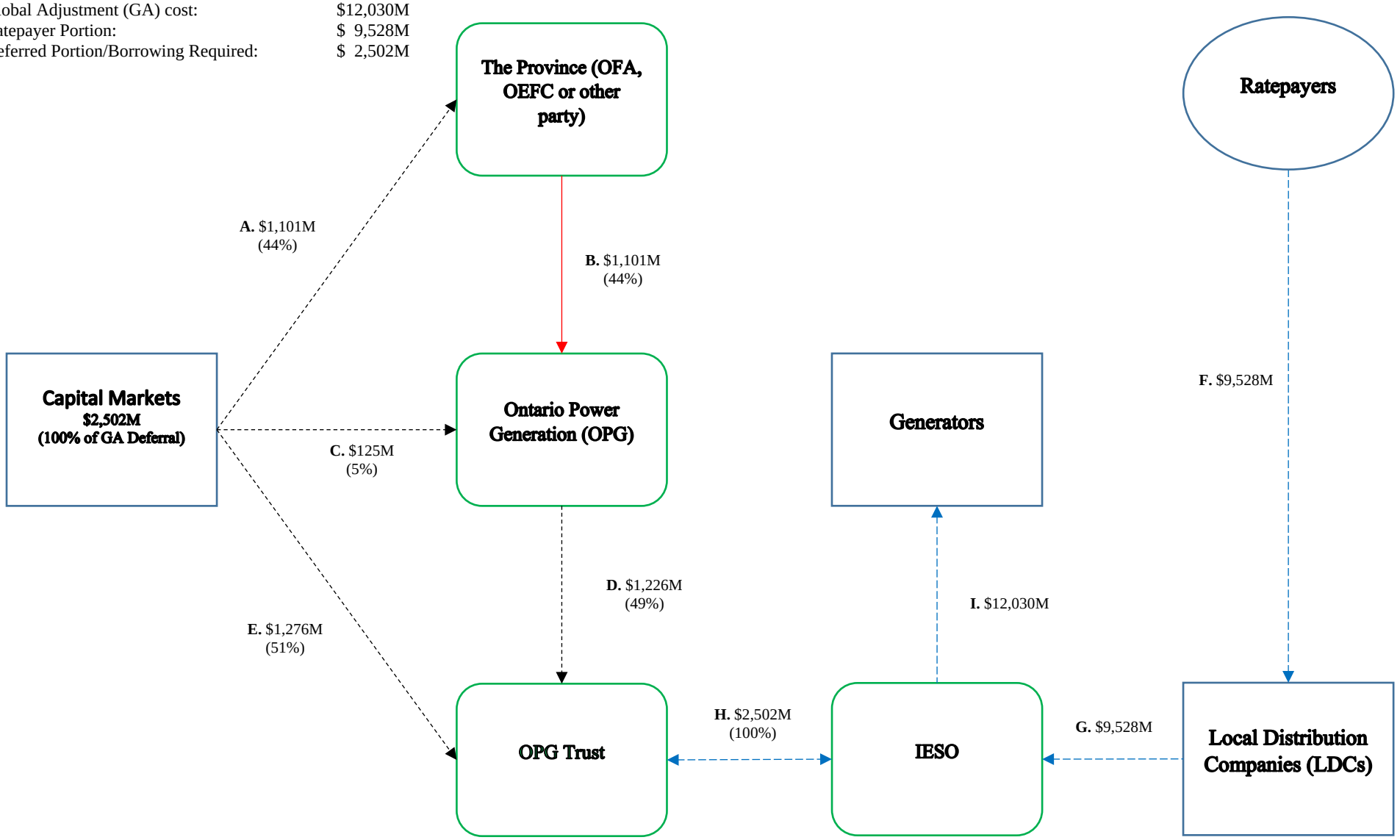
Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments that can be undertaken, depending on legislative and regulatory approval that will impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers immediately:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers immediately. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be collected as well. Overall, there would be no fiscal cost, and less debt will build up over time due to the elimination of the compound effects on interest. However, the relief provided to ratepayers from the principal payments on deferred costs would be mitigated by this interest payment, although it is quite low for the initial 4 -5 years.
    - **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which is essentially proposing to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.

- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings. There is also a compounding effect on interest as even though cash interest has not been paid, an expense still needs to be recognized.
- Option 4: **No collection from ratepayers but deferral of expense recognition**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books, thus eliminating the fiscal impact.
    - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
    - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
    - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
    - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
    - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
    - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
    - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M



Setting up the Trust

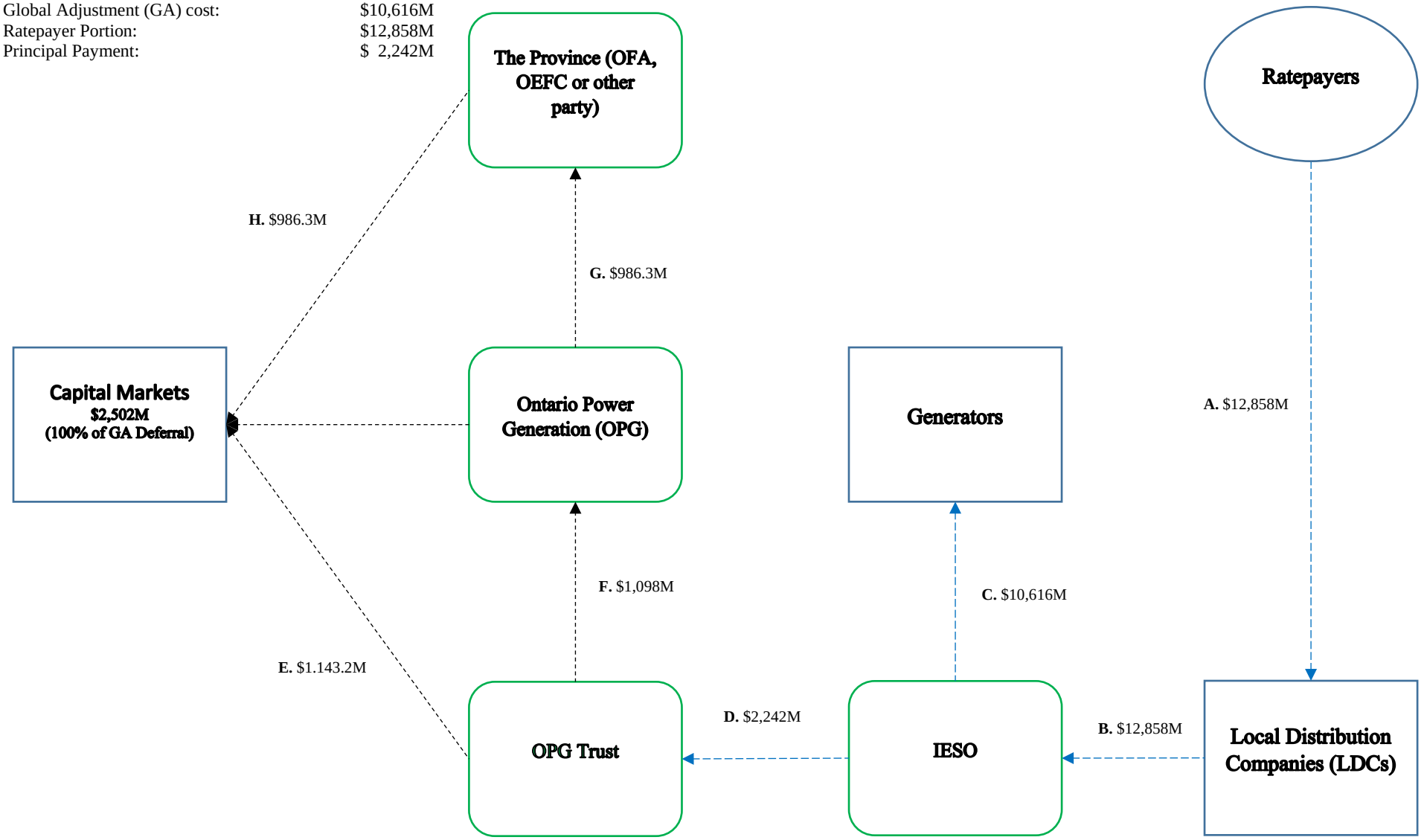
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism

F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

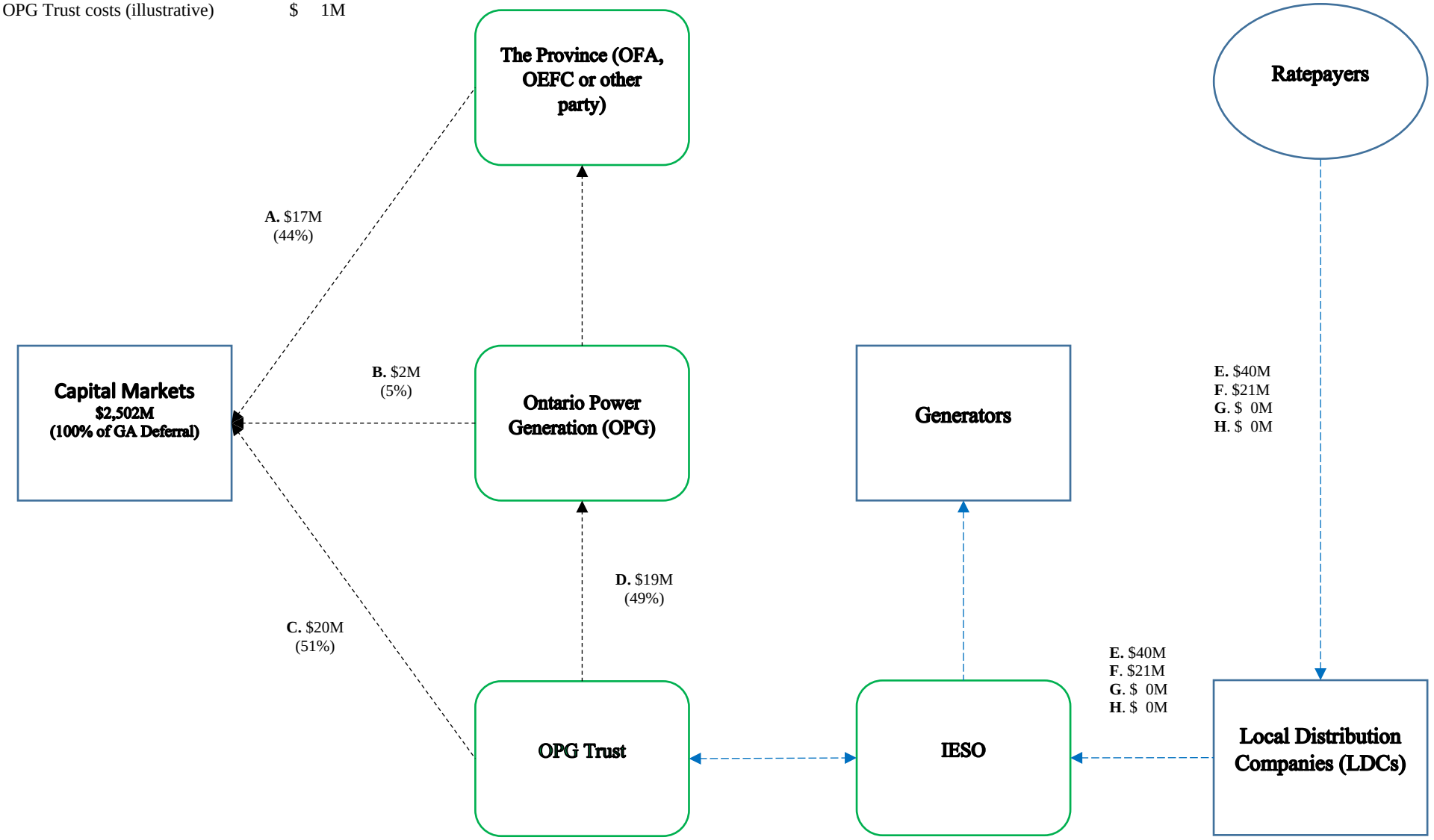
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Adam Prokop (416-325-6462)
Electricity and Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority
March 10, 2017

From:	Salman Qadir
To:	Adam Prokop; John Kim; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject:	GA financing Flow Model v2 _vSQ.xlsx
Date:	Monday, March 20, 2017 12:11:05 PM
Attachments:	GA financing Flow Model v2 _vSQ.xlsx

Hi all,

I wanted to do a quick calculation to show what I was trying to refer to in the meeting. In essence, if we stick with the interest rate forecast in the model and say that the trust borrows at 5%, there is a difference of approximately $3.4 billion – which is a result of the Province being able to borrow at a lower rate than the Trust. This benefit results in a short term for the Province's portion of the debt (due to lower interest rate). With 5% across the board modelling, you are effectively sharing that $3.4 billion between the Province and the Trust.

This is just rough but just some thoughts.

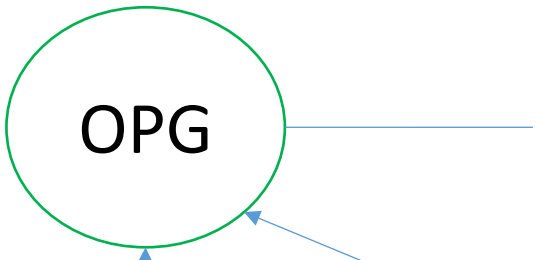
Regards,
Salman

Use the left toggle to switch between fiscal years and the right toggle to switch between debt transactions and interest transactions

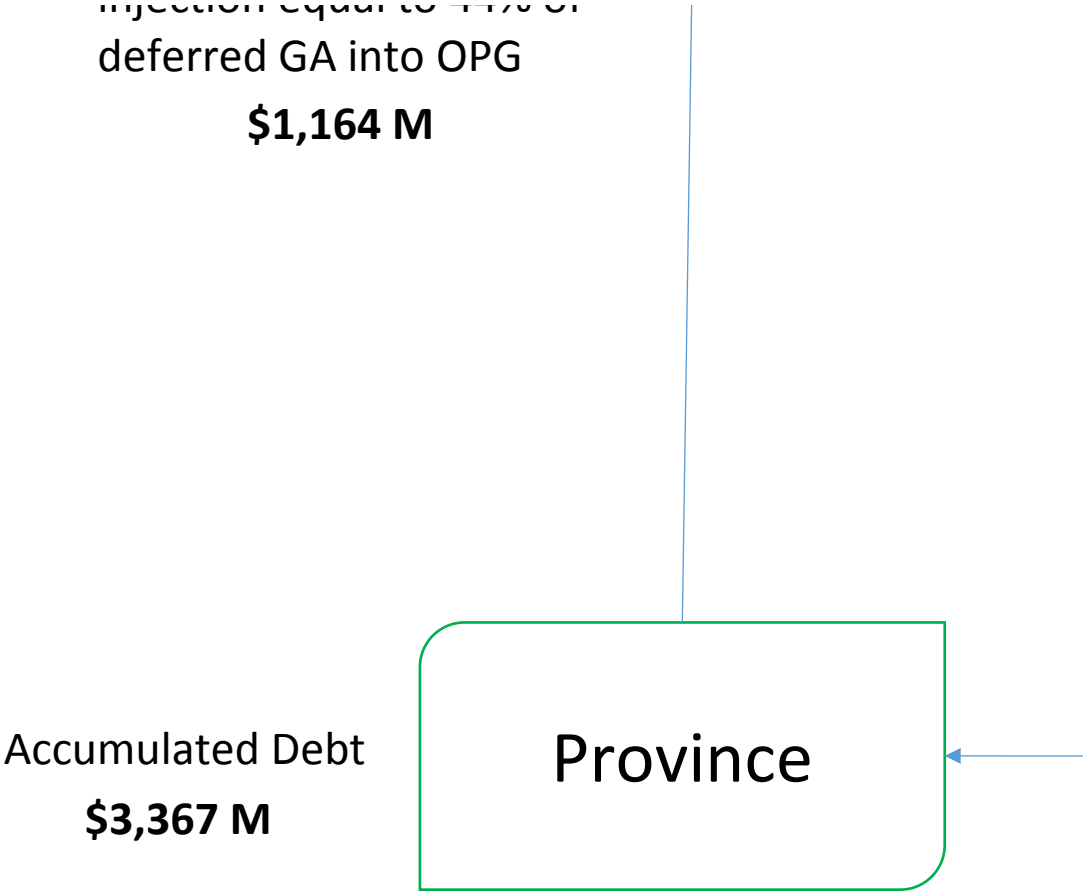
2019-20

B/S Transaction

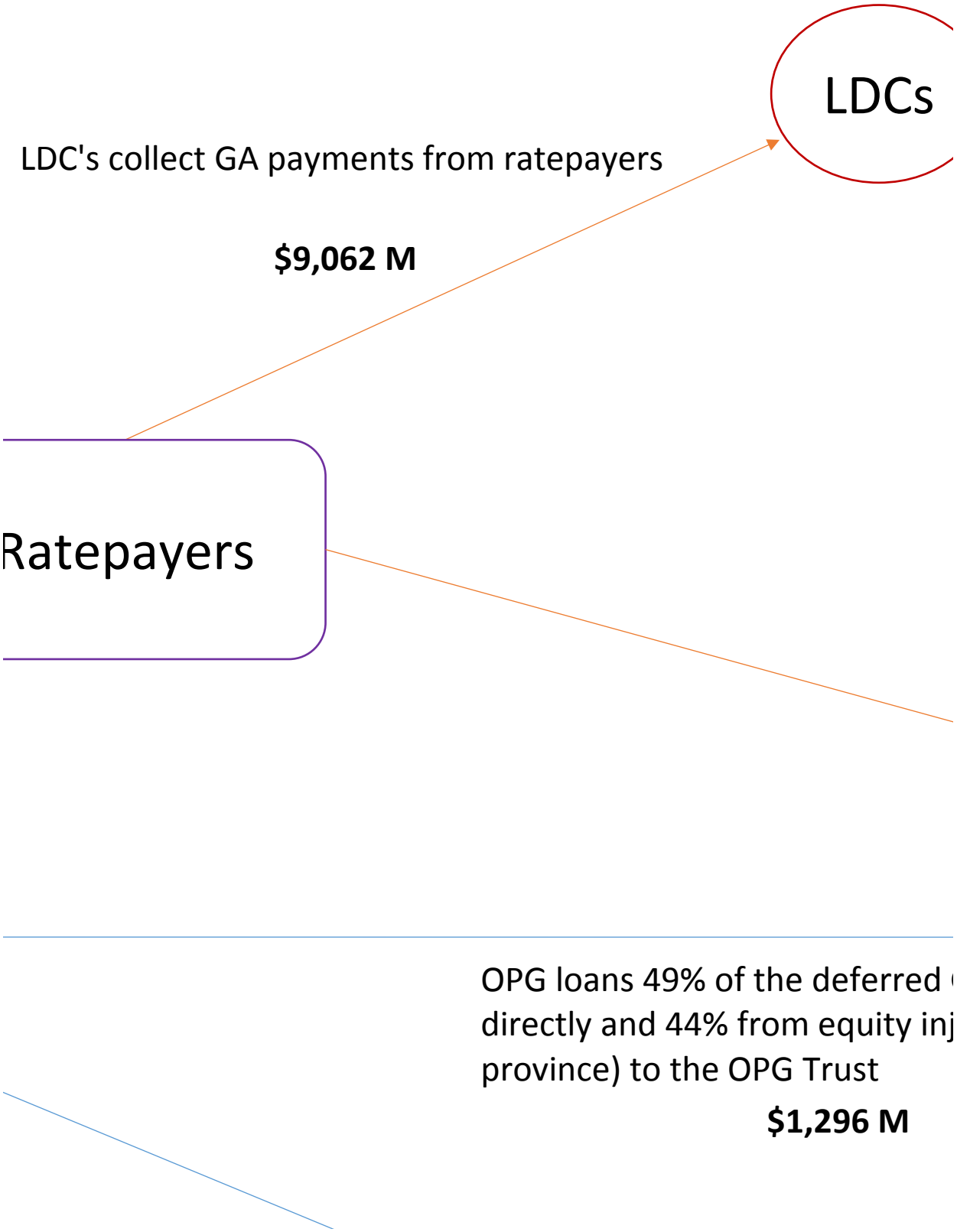
Accumulated Debt
$383 M



Province puts equity injection equal to 44% of


deferred GA into OPG
$1,164 M
Province
Accumulated Debt
$3,367 M

GA Deferral


LDCs
LDC's collect GA payments from ratepayers
$9,062 M
Ratepayers
OPG loans 49% of the deferred
directly and 44% from equity inj
province) to the OPG Trust
$1,296 M

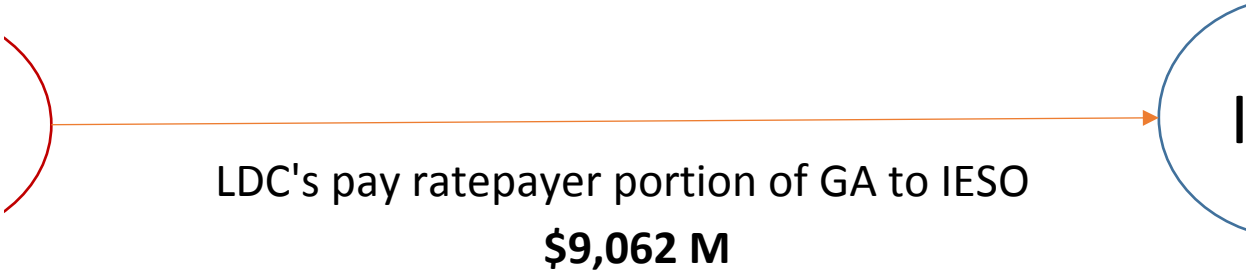
OPG borrows 5% of the deferred GA from the market

$132 M

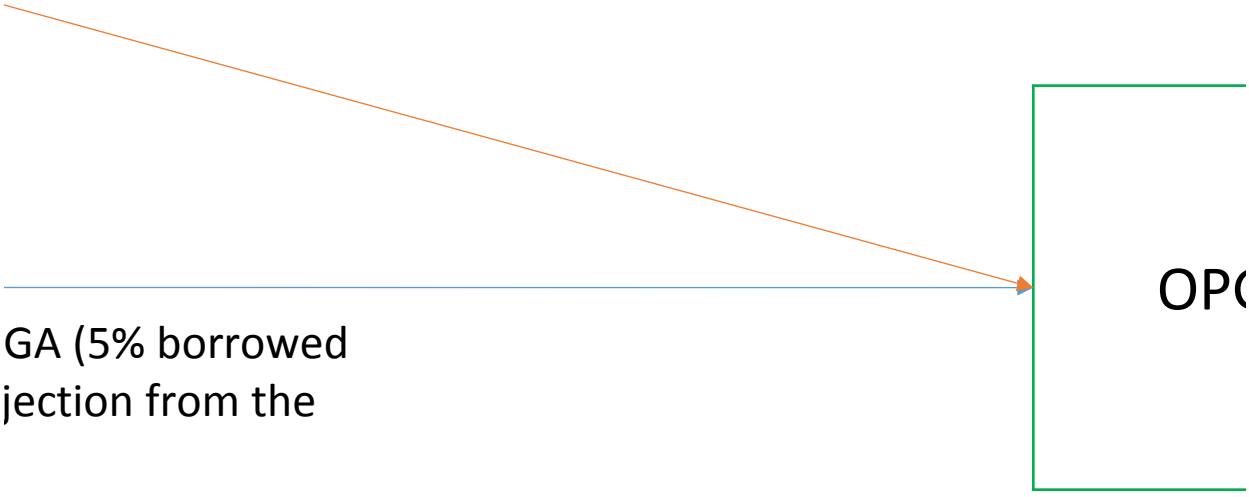
Province borrows 44 deferred GA from the r

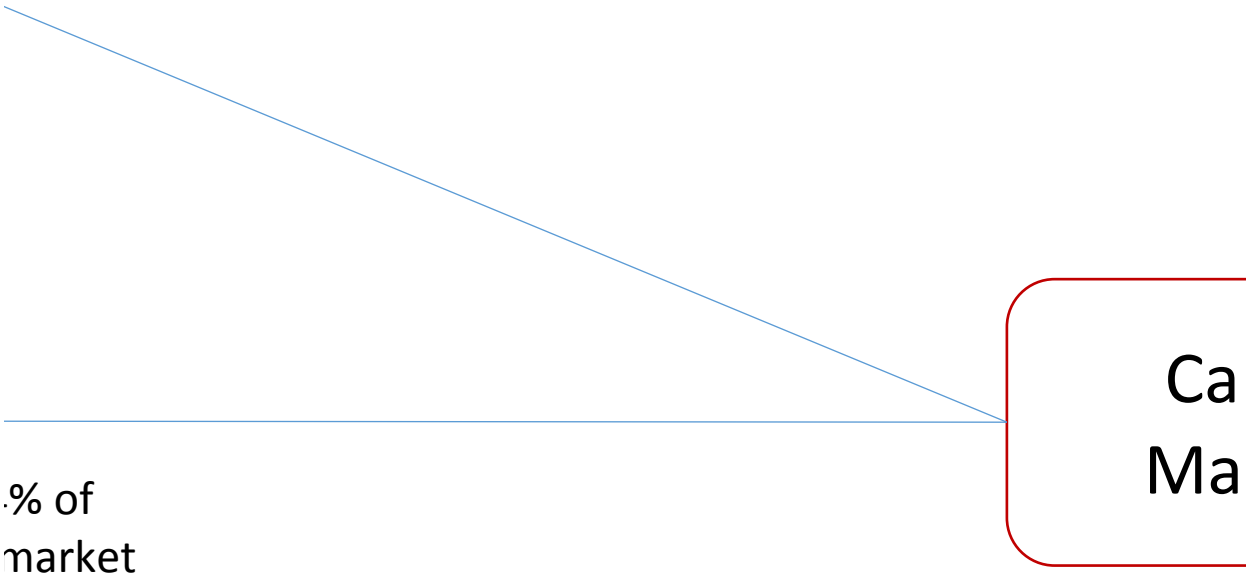
$1,164 M

Mechanism



OPG trust purchases the regulatory asset from IESO in exchange for cash
$2,644 M




Ca
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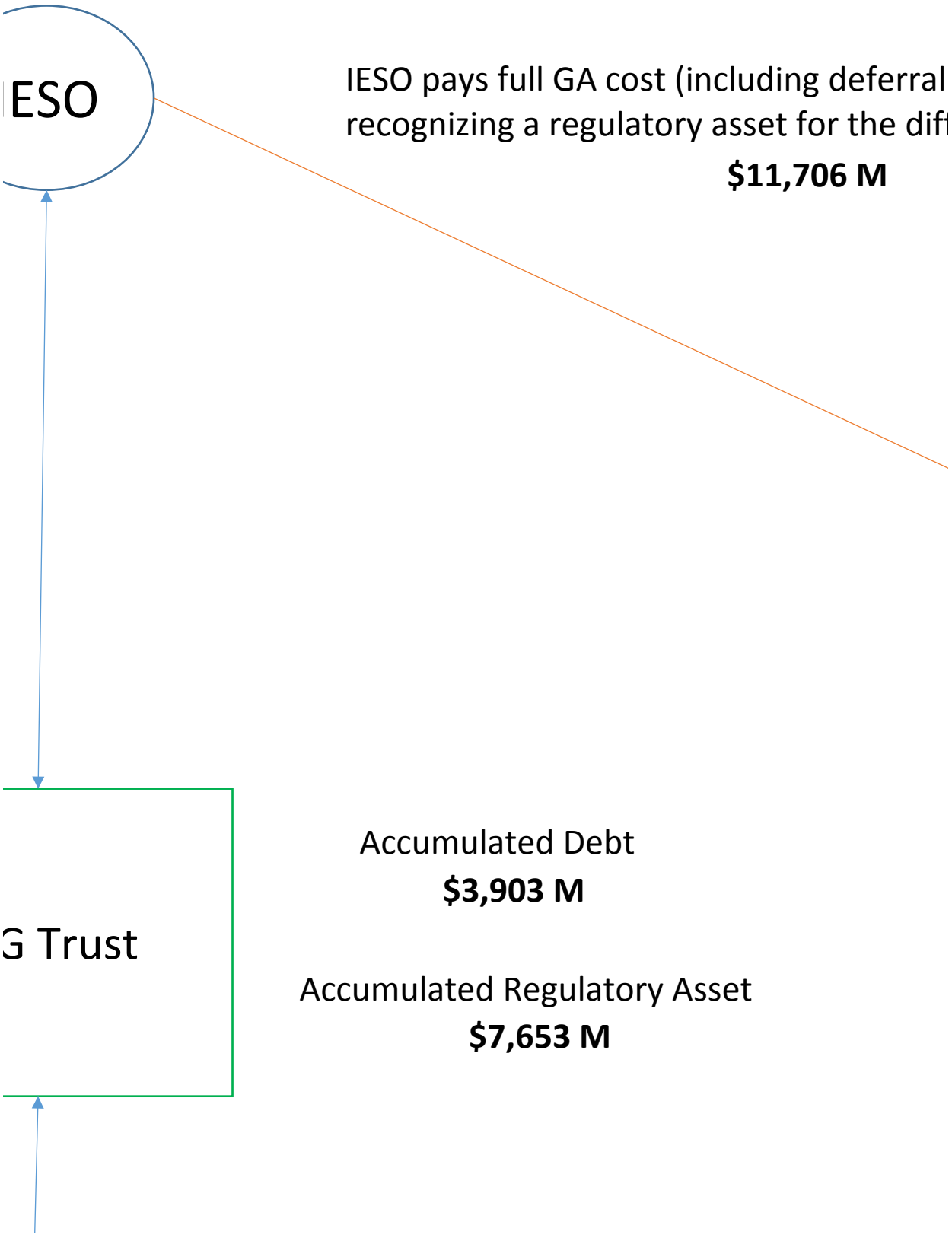
market


ESO
IESO pays full GA cost (including deferral
recognizing a regulatory asset for the dif
$11,706 M
G Trust
Accumulated Debt
$3,903 M
Accumulated Regulatory Asset
$7,653 M

OPG Trust borrows 51% of the annual deferred GA from the market - **$1,349 M**

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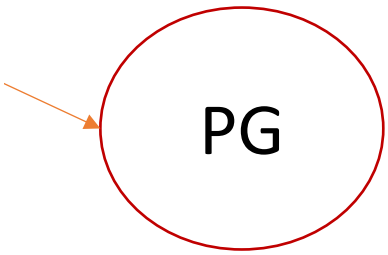
) to the generators,
ference



44%
5%
51%

44%
5%
51%

B/S Transaction
Interest

B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S Transaction
B/S EOY
B/S EOY
B/S EOY
B/S EOY
Interest
Interest
Interest
Interest
Interest

GA Cost
Ratepayer Cost
Total Debt Borrowed
Province Share
OPG Share
OPG Trust share

Interest
2017-18
2018-19
2019-20
2020-21

Total
Province Share
OPG Share
OPG Trust share

Loan to OPG Trust from OPG

Province puts equity injection equal to 44% of deferred GA into OPG
Province borrows 44% of deferred GA from the market
OPG loans 49% of the deferred GA (5% borrowed directly and 44% from equity injection from the province) to the
OPG borrows 5% of the deferred GA from the market
OPG Trust borrows 51% of the annual deferred GA from the market -
IESO sells the regulatory asset to OPG Trust for cash used to make whole the power generators for the deferred G
OPG trust purchases the regulatory asset from IESO in exchange for cash
LDC's pay ratepayer portion of GA to IESO
LDC's collect GA payments from ratepayers
IESO pays full GA cost (including deferral) to the generators, recognizing a regulatory asset for the difference
Accumulated Regulatory Asset
Accumulated Debt
Accumulated Debt
Accumulated Debt
Interest due from Province to the Market for 44% GA Deferral
Interest due from OPG to the Market for 5% GA Deferral
Interest due from OPG Trust to the Market for 51% GA Deferral -
Interest due from OPG Trust to OPG from the 49% of GA Deferral loan (5% from OPG and 44% from equity injectio
Interest Income OPG Trust recognizes to be received from ratepayers to match 100% GA Deferral interest expens

Province puts equity injection equal to 44% of deferred GA into OPG
Province borrows 44% of deferred GA from the market
OPG loans 49% of the deferred GA (5% borrowed directly and 44% from equity injection from the province) to the
OPG borrows 5% of the deferred GA from the market
OPG Trust borrows 51% of the annual deferred GA from the market -
IESO sells the regulatory asset to OPG Trust for cash used to make whole the power generators for the deferred G
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Accumulated Regulatory Asset
Accumulated Debt
Accumulated Debt
Accumulated Debt
Interest due from Province to the Market for 44% GA Deferral
Interest due from OPG to the Market for 5% GA Deferral
Interest due from OPG Trust to the Market for 51% GA Deferral -
Interest due from OPG Trust to OPG from the 49% of GA Deferral loan (5% from OPG and 44% from equity injectio

2017-18	2018-19	2019-20	2020-21
$12,030 M	$11,764 M	$11,706 M	$11,837 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$125 M	$125 M	$132 M	$149 M
$1,276 M	$1,278 M	$1,349 M	$1,515 M
3.12%	3.63%	4.30%	4.30%
$39 M	$78 M	$78 M	$78 M
	$45 M	$91 M	$91 M
		$57 M	$114 M
			$64 M
$39 M	$124 M	$226 M	$347 M
$17 M	$54 M	$99 M	$153 M
$2 M	$6 M	$11 M	$17 M
$20 M	$63 M	$115 M	$177 M
$1,226 M	$1,228 M	$1,296 M	$1,456 M
1	3		
2017-18	**2018-19**	**2019-20**	**2020-21**
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$1,101 M	$1,103 M	$1,164 M	$1,307 M
$1,226 M	$1,228 M	$1,296 M	$1,456 M
$125 M	$125 M	$132 M	$149 M
$1,276 M	$1,278 M	$1,349 M	$1,515 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$2,502 M	$2,506 M	$2,644 M	$2,971 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$9,528 M	$9,258 M	$9,062 M	$8,866 M
$12,030 M	$11,764 M	$11,706 M	$11,837 M
$2,502 M	$5,009 M	$7,653 M	$10,624 M
$1,101 M	$2,204 M	$3,367 M	$4,674 M
$125 M	$250 M	$383 M	$531 M
$1,276 M	$2,554 M	$3,903 M	$5,418 M
$17 M	$54 M	$99 M	$153 M
$2 M	$6 M	$11 M	$17 M
$20 M	$63 M	$115 M	$177 M
$19 M	$61 M	$111 M	$170 M
$39 M	$124 M	$226 M	$347 M

$1,164 M
$1,164 M
$1,296 M
$132 M
$1,349 M
$2,644 M
$2,644 M
$9,062 M
$9,062 M
$11,706 M
$7,653 M
$3,367 M
$383 M
$3,903 M
$99 M
$11 M
$115 M
$111 M

GA Financing Model

By changing the inputs, one can model different scenarios for the GA Debt financing.

Total Principal ($M)	$	20,332.32
Peak Debt ($M)	$	26,336.62
Accumulated Interest ($M)	$	18,129.40
Max Payment ($M)	$	2,241.55
Interest Type		Annualized
GA Scenario		March 3 - Option 1 - Ratepayer cost
Final Payment made in Year		2044
Maximum Payment ($M)	$	(2,241.55)
Payment Periods		12
Share of debt & interest		44%

Negative/positive	1.00
WEIGHT	3.12%
Interest Rate	3.12%

Change in ratepayer cost - Option `
Change in ratepayer cost - Option 2 `

	2017
IESO GA cost forecast + extrapolation	12,095
March 3 - Option 1 - Ratepayer cost	9,595
Feb 22 Option 1 - Ratepayer cost	9,595
Feb 15 Option 1 - Ratepayer cost	9,781
Feb 4 Option 1 - Ratepayer cost	7,294

GA Debt requirement

Option 1	2,501
Interest	3.17%
Debt Beginning of year	0
Interest on Debt	0
Additional GA Drawdown, end of year	2,501
Debt End of year	2,501
Principal	2,501

Fiscalized (44% share) - $M	**2017-18**
Interest	10

Rough

Additional GA Drawdown, end of year		2,501
PROVINCE		
Interest Rate		3.12%
Interest		3.17%
		1,100
Debt Beginning of year		0
Interest Cost		0.00
Province's Share (44%)		1,100
Debt End of year		1,100

TRUST		
Interest Rate		5.00%
Interest		5.12%
		1,400
Debt Beginning of year		0
Interest Cost		0.00
Trust's Share (56%)		1,400
Debt End of year		1,400

	-3,412	0

Notes

1. Based on Ministry of Energy model and associated assumptions.
2. GA forecast, ratepayer payments, and interest costs subject to change.
3. To forecast the payment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any this period.

Please only change the yellow cells.

Please Select
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Can Change Share here

1.00	1.00	1.00	1.00	1.00
3.38%	3.68%	3.86%	3.95%	4.00%
3.63%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0
-2.79%	-2.95%	0.47%	-10.01%	-0.05%
-2.79%	-2.95%	0.47%	-10.01%	2.32%
2018	**2019**	**2020**	**2021**	**2022**
11,835	11,552	12,168	10,844	10,634
9,327	9,051	9,094	8,184	8,180
9,327	9,051	9,094	8,184	8,374
9,661	9,367	8,733	8,459	8,628
7,441	7,590	7,741	7,897	8,055
2,508	2,501	3,075	2,660	2,454
3.69%	4.39%	4.39%	4.39%	4.39%
2,501	5,101	7,825	11,243	14,396
92	224	343	493	631
2,508	2,501	3,075	2,660	2,454
5,101	7,825	11,243	14,396	17,482
5,009	7,509	10,584	13,244	15,698

2018-19	2019-20	2020-21	2021-22	2022-23
55	112	167	232	293

2,508	2,501	3,075	2,660	2,454
3.63%	4.30%	4.30%	4.30%	4.30%
3.69%	4.39%	4.39%	4.39%	4.39%
1,103	1,100	1,353	1,170	1,080
1,100	2,244	3,443	4,947	6,334
40.61	98.43	151.01	216.96	277.81
1,103	1,100	1,353	1,170	1,080
2,244	3,443	4,947	6,334	7,692
5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%
1,404	1,401	1,722	1,490	1,374
1,400	2,876	4,424	6,372	8,188
71.64	147.16	226.35	326.01	418.90
1,404	1,401	1,722	1,490	1,374
2,876	4,424	6,372	8,188	9,981
-20	-42	-76	-126	-191

given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paic

1.00	1.00	1.00	0.00	0.00
4.04%	4.06%	4.07%	4.07%	4.07%
4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0
0.32%	18.73%	-4.38%	9.88%	12.11%
2.32%	2.32%	2.32%	2.32%	2.32%
2023	**2024**	**2025**	**2026**	**2027**
10,243	11,128	10,527	10,033	11,043
8,206	9,743	9,316	10,236	11,476
8,569	8,768	8,972	9,180	9,394
8,801	8,977	9,156	9,340	9,526
8,216	8,381	8,548	8,719	8,894
2,038	1,386	1,211	-203	-433
4.39%	4.39%	4.39%	4.39%	4.39%
17,482	20,286	22,561	24,762	25,645
767	890	989	1086	1125
2,038	1,386	1,211	-203	-433
20,286	22,561	24,762	25,645	26,337
17,736	19,121	20,332	20,129	19,696

2023-24	2024-25	2025-26	2026-27	2027-28
351	402	446	482	498

2,038	1,386	1,211	-203	-433
4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%
897	610	533	-89	-190
7,692	8,926	9,927	10,895	11,284
337.35	391.47	435.37	477.84	494.88
897	610	533	-89	-190
8,926	9,927	10,895	11,284	11,588
5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%
1,141	776	678	-114	-242
9,981	11,633	13,004	14,347	14,968
510.64	595.15	665.30	734.03	765.77
1,141	776	678	-114	-242
11,633	13,004	14,347	14,968	15,491
-272	-369	-481	-606	-742

ɪ down, with interest still accumulating over

	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%
	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
	0	0	0	0	0	0	0
	13.81%	-6.20%	-2.34%	-8.92%	1.52%	-5.26%	-4.60%
	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%	2.32%
	2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
	10,819	10,009	9,721	8,654	8,820	8,238	7,756
	13,061	12,250	11,963	10,896	11,061	10,480	9,998
	9,612	9,835	10,064	10,298	10,537	10,782	11,033
	9,717	9,911	10,109	10,312	10,518	10,728	10,943
	9,072	9,254	9,438	9,627	9,820	10,017	10,217
	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
	26,337	25,250	24,116	22,932	21,696	20,406	19,060
	1155	1107	1058	1006	952	895	836
	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
	25,250	24,116	22,932	21,696	20,406	19,060	17,654
	17,455	15,213	12,972	10,730	8,489	6,247	4,005

2028-29	**2029-30**	**2030-31**	**2031-32**	**2032-33**	**2033-34**	**2034-35**
503	482	460	437	412	387	361

-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
-986	-986	-986	-986	-986	-986	-986
11,588	11,110	10,611	10,090	9,546	8,979	8,386
508.23	487.26	465.38	442.53	418.68	393.79	367.80
-986	-986	-986	-986	-986	-986	-986
11,110	10,611	10,090	9,546	8,979	8,386	7,768
5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	-1,255
15,491	15,028	14,542	14,030	13,493	12,928	12,334
792.54	768.87	743.98	717.83	690.33	661.43	631.04
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	-1,255
15,028	14,542	14,030	13,493	12,928	12,334	11,710
-888	-1,037	-1,188	-1,343	-1,501	-1,661	-1,824

0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
0	0	0	0	0	0	0
-20.95%	-3.46%	-3.41%	-3.36%	-3.31%	-3.26%	-3.20%
-13.13%	-2.85%	-2.80%	-2.74%	-2.68%	-2.62%	-2.56%
2035	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**
5,662	5,389	5,129	4,881	4,645	4,421	4,207
7,904	7,630	7,370	7,122	6,887	6,662	6,449
9,585	9,311	9,051	8,803	8,567	8,343	8,130
9,187	8,913	8,653	8,405	8,170	7,945	7,732
10,421	10,630	10,842	11,059	11,280	11,505	11,735
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
17,654	16,187	14,655	13,056	11,387	9,645	7,827
774	710	643	573	499	423	343
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
16,187	14,655	13,056	11,387	9,645	7,827	5,928
1,764	-478	-2,719	-4,961	-7,202	-9,444	-11,685

2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42
334	305	275	244	211	177	142

-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
-986	-986	-986	-986	-986	-986	-986
7,768	7,122	6,448	5,745	5,010	4,244	3,444
340.68	312.36	282.81	251.95	219.75	186.13	151.04
-986	-986	-986	-986	-986	-986	-986
7,122	6,448	5,745	5,010	4,244	3,444	2,609
5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	-1,255
11,710	11,054	10,364	9,639	8,877	8,076	7,234
599.11	565.54	530.25	493.16	454.16	413.18	370.10
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	-1,255
11,054	10,364	9,639	8,877	8,076	7,234	6,349
-1,989	-2,157	-2,328	-2,500	-2,675	-2,851	-3,029

0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
0	0	1	1	1	1	1	1
-3.15%	-3.10%	-3.04%	-2.98%	-2.93%	-2.87%	-44.57%	-4.83%
-2.50%	-2.44%	-2.38%	-2.32%	-2.26%	-2.20%	-57.79%	-4.83%
2042	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**
4,004	3,811	3,627	3,451	3,285	3,126	2,975	2,831
6,246	6,052	5,868	5,693	5,526	5,368	2,975	2,831
7,926	7,733	7,549	7,374	7,207	7,048	2,975	2,831
7,529	7,335	7,151	6,976	6,809	6,651	2,975	2,831
11,546	11,353	11,169	10,992	10,826	10,667	2,975	2,831
-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
5,928	3,947	1,879	0	0	0	0	0
260	173	82	0	0	0	0	0
-2,242	-2,242	-1,961	0	0	0	0	0
3,947	1,879	0	0	0	0	0	0
-13,927	-16,169	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129

2042-43	**2043-44**	**2044-45**	**2045-46**	**2046-47**	**2047-48**	**2048-49**	**2049-50**
105	66	27	0	0	0	0	0

-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	0	0
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
-986	-986	-986	-986	-986	-986	0	0
2,609	1,737	827	0	0	0	0	0
114.40	76.17	36.25	0.00	0.00	0.00	0.00	0.00
-986	-986	-863	0	0	0	0	0
1,737	827	0	0	0	0	0	0
5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	0	0
6,349	5,418	4,440	3,412	2,331	1,195	1	1
324.81	277.20	227.16	174.56	119.27	61.15	0.06	0.06
-1,255	-1,255	-1,255	-1,255	-1,255	-1,255	0	0
5,418	4,440	3,412	2,331	1,195	1	1	1
-3,208	-3,388	-3,412	-2,331	-1,195	-1	-1	-1

1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
1	1	1	1	1	1	1	1	1
-4.83%								
-4.83%								
2050	**2051**	**2052**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**
2,695								
2,695								
2,695								
2,695								
2,695								
0	0	0	0	0	0	0	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129

2050-51	**2051-52**	**2052-53**	**2053-54**	**2054-55**	**2055-56**	**2056-57**	**2057-58**	**2058-59**
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
0	0	0	0	0	0	0	0	0
1	1	1	2	2	2	2	2	2
0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.10
0	0	0	0	0	0	0	0	0
1	1	2	2	2	2	2	2	2
-1	-1	-2	-2	-2	-2	-2	-2	-2

1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%	4.07%
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
1	1	1	1	1	1	1	1	1

2059	2060	2061	2062	2063	2064	2065	2066	2067
0	0	0	0	0	0	0	0	0
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129	-18,129

2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68
0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0
4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%	4.30%
4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%	4.39%
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%	5.12%
0	0	0	0	0	0	0	0	0
2	2	2	2	3	3	3	3	3
0.11	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.16
0	0	0	0	0	0	0	0	0
2	2	2	3	3	3	3	3	3
-2	-2	-2	-3	-3	-3	-3	-3	-3

1.00	1.00	1.00
4.07%	4.07%	4.07%
4.30%	4.30%	4.30%
1	1	1

2068	2069	2070
0	0	0
4.39%	4.39%	4.39%
0	0	0
0	0	0
0	0	0
0	0	0
-18,129	-18,129	-18,129

2068-69	2069-70
0	0

0	0	0
4.30%	4.30%	4.30%
4.39%	4.39%	4.39%
0	0	0
0	0	0
0.00	0.00	0.00
0	0	0
0	0	0
5.00%	5.00%	5.00%
5.12%	5.12%	5.12%
0	0	0
3	3	4
0.17	0.17	0.18
0	0	0
3	4	4
-3	-4	-4

Fiscal Year

Change in Provincial Borrowing

OEP forecast as of Feb. 28

Interest Rate Forecast

IOD from Change in Long-Term Borrowing

2017-18

2018-19

2019-20

2020-21

Total IOD Impact

Reported to Fiscal last Week

GA Debt requirement / Calendar Year	**2017**
Option 1	2501
	12095
	9595

Fiscal Year Equivalent	2017-18
FY Adjusted Debt Requirement	2502
Provincial Borrowing Required	1101
	12030
	9528

2017-18		2018-19	2019-20	2020-21
$M		$M	$M	
	1,101	1,103	1,164	1,307
	OEP	OEP	15-Year Average	15-Year Average
	3.1%	3.6%	4.3%	4.3%
	17	34	34	34
		20	40	40
			25	50
				28
	17	**54**	**99**	**153**
	17	55	102	

2018	**2019**	**2020**	**2021**
2508	2501	3075	2660
11835	11552	12168	10844
9327	9051	9094	8184

2018-19	2019-20	2020-21
2506	2644	2971
1103	1164	1307
11764	11706	11837
9258	9062	8866

From:	Bruno Amara
To:	John Kim; Adam Prokop; Shajee Kathirgamanathan
Subject:	GA structure edits/comments
Date:	Tuesday, March 14, 2017 12:19:25 PM
Attachments:	GA Structure v9.docx

Hi,

I added some more edits to the note. Hopefully I edited the previous version 8. It's mostly wordsmithing, but a some comments/questions as well.

Thanks, the note has helped me grasp this much better but check my edits as some may reflect my not fully understanding.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a cap on the annual additional cost over the GA to lessen the burden on ratepayers
- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the ~~Province~~ mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in interest on interest costs) or if interest will be recovered from ratepayers on an ~~frequent~~ on-going basis.
    - If interest costs are capitalized, ~~Having "interest on interest" (i.e., compounding effect) with deferrals on interest payments increases~~ peak debt would increase by approximately $5B and ~~leads additional~~ accumulated interest costs would increase by an estimated $xxx~~, based on preliminary estimates~~.
    - Alternatively, if ~~However, if~~ interest payments are made by ratepayers on an ~~frequent~~ on-going basis~~,~~ debt costs would be lower, however this ~~it lessens the relief provided by the GA deferral mechanism and~~ would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of borrowing simply needs to be larger to offset this effect.
- ~~Furthermore, i~~It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers or recognized at the very least, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, ~~likely as a regulatory asset that~~ which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that ~~The proposal states that~~ the IESO ~~would~~ be required to recover ~~collect~~ the costs associated with this asset even after selling it.
    - To do this t~~T~~he IESO would need~~s~~ to sell the asset in order to secure cash to settle its arrangements with generators, thus ensuring ~~that~~ generators are not affected by the deferral.
        - Alternatively, IESO could simply borrow funds (using the regulatory asset as collateral), but poses risks ~~this has implications~~ for both consolidation on public accounts and ~~including the impact on~~ credit ratings.
        - With respect to the credit rating risk, ~~On the other hand,~~ DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".

Commented [JK1]: A cap of $ amount?

Commented [BA2]: Can we put in a figure?

Commented [BA3]: ? borrowing would be less if ratepayers pay interest on an ongoing basis.. No?

Commented [BA4]: Recognized as expense with fiscal impact (or does this also get passed on to ratepayers?

- OPG is proposing to set up a special purpose vehicle, "OPG Trust~~" that~~", which would purchase the regulatory asset from IESO.
    - The purchase would be funded by the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through a loan from the capital markets (5%) and an equity injection from the P~~p~~rovince (44%).
    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper released on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The ~~rationale behind an~~ equity injection ~~is that it~~ could lead to increasing, and then stabilizing, dividend payouts in ~~commensurate~~ consistent with ~~the~~ O~~ntario~~ PG'~~s~~ower Generation~~'~~s risk profile and comparable business entities.
    - Principal ~~payments~~ and interest payements flowing from the ratepayers through the IESO and the Trust could be ~~relayed~~ paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about~~n estimated ten~~ 10 years[2] time, eventually reaching a cap of ~~an estimated~~ $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized ~~with the interest on~~ interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts, potentially offsetting ratepayer benefit of the GA deferral mechanism.
- The financing structure split between equity (44%) and debt (~~56% -~~ 5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments ~~that can be undertaken~~, depending on legislative and regulatory approval, that would~~ill~~ impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers ~~immediately~~on an on-going basis:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers ~~immediately~~along the way. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be ~~collected as well~~made. Overall, there would be no fiscal cost, and less debt

Commented [JK5]: Released? Is this in reference to the 14 conditions?

Commented [SK86]: Please confirm if this is Feb 17.

Commented [BA7]: I am unsure of what the key message of this section is? My lack of understanding.

Is this mainly about how the Province gets repaid for its equity injection?
Is the optimizing capital structure a key message and is this capital structure something the market is looking for, or the Auditor General?

Commented [JK8]: Might want to clarify as what you're saying here is to lower equity in the immediate sense to get to 55-45 right away before starting to inject equity.

Commented [JK9]: Not sure what this means. Does this mean that it is preferable to OPG doing its own borrowing?

would~~ill~~ build up over time due to the elimination of the compound effects on interest. However, the relief provided to ratepayers from the principal payments on deferred costs would be lowered ~~mitigated~~ by the amount of these~~is~~ interest payments, although this would be fairly moderate~~it is quite low~~ for the initial 4 -5 years.

- **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which ~~is~~ essentially proposes~~ing~~ to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.
- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings. There is also a compounding effect on interest as ~~even though cash interest has not been paid,~~ an expense still needs to be recognized~~.~~, even though cash interest has not been paid.
- Option 4: **No collection from ratepayers but deferral of expense recognition (Same as Energy's analysis in its Cabinet Submission)**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books and recognize as a regulatory asset, thus eliminating the fiscal impact.
  - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
  - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
  - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
  - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
  - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
  - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
  - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

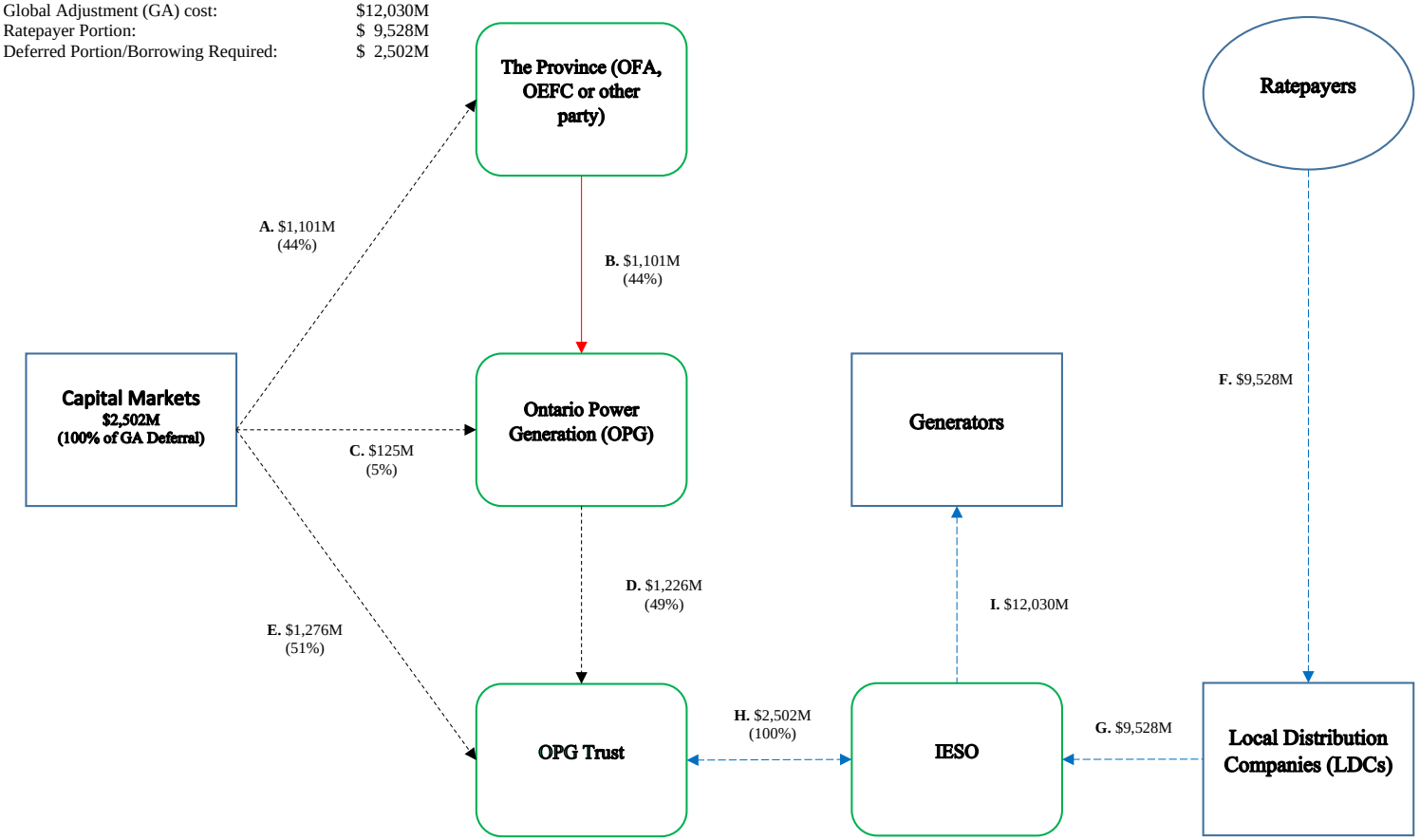
Commented [JK10]: I'd suggest delete as in the end the 25% commitment would lead to more GA deferral over time.

Commented [BA11]: Not sure I fully understand but does the last part of the 2nd sentence need to be moved up per the following:.

There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M

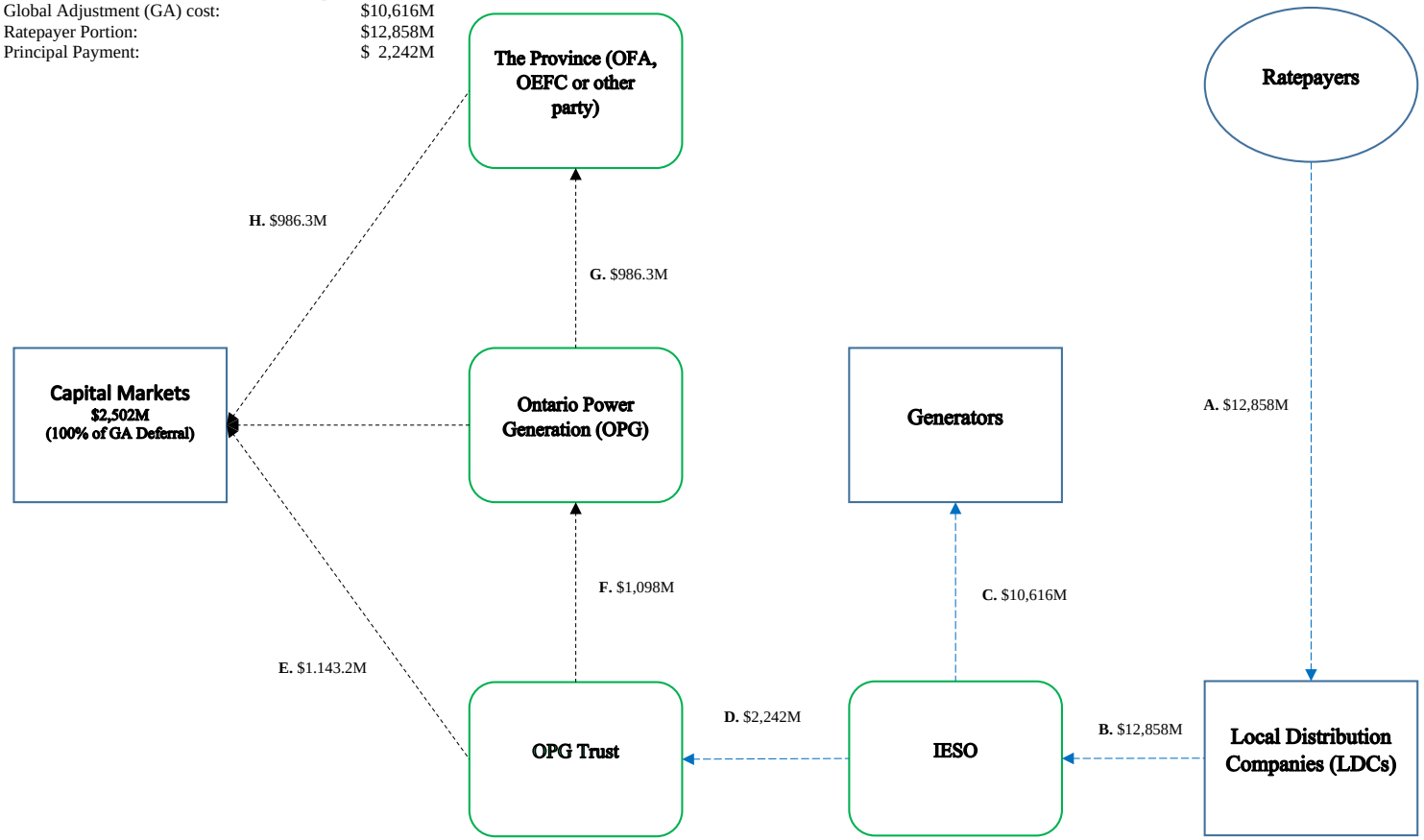


Setting up the Trust
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism
F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

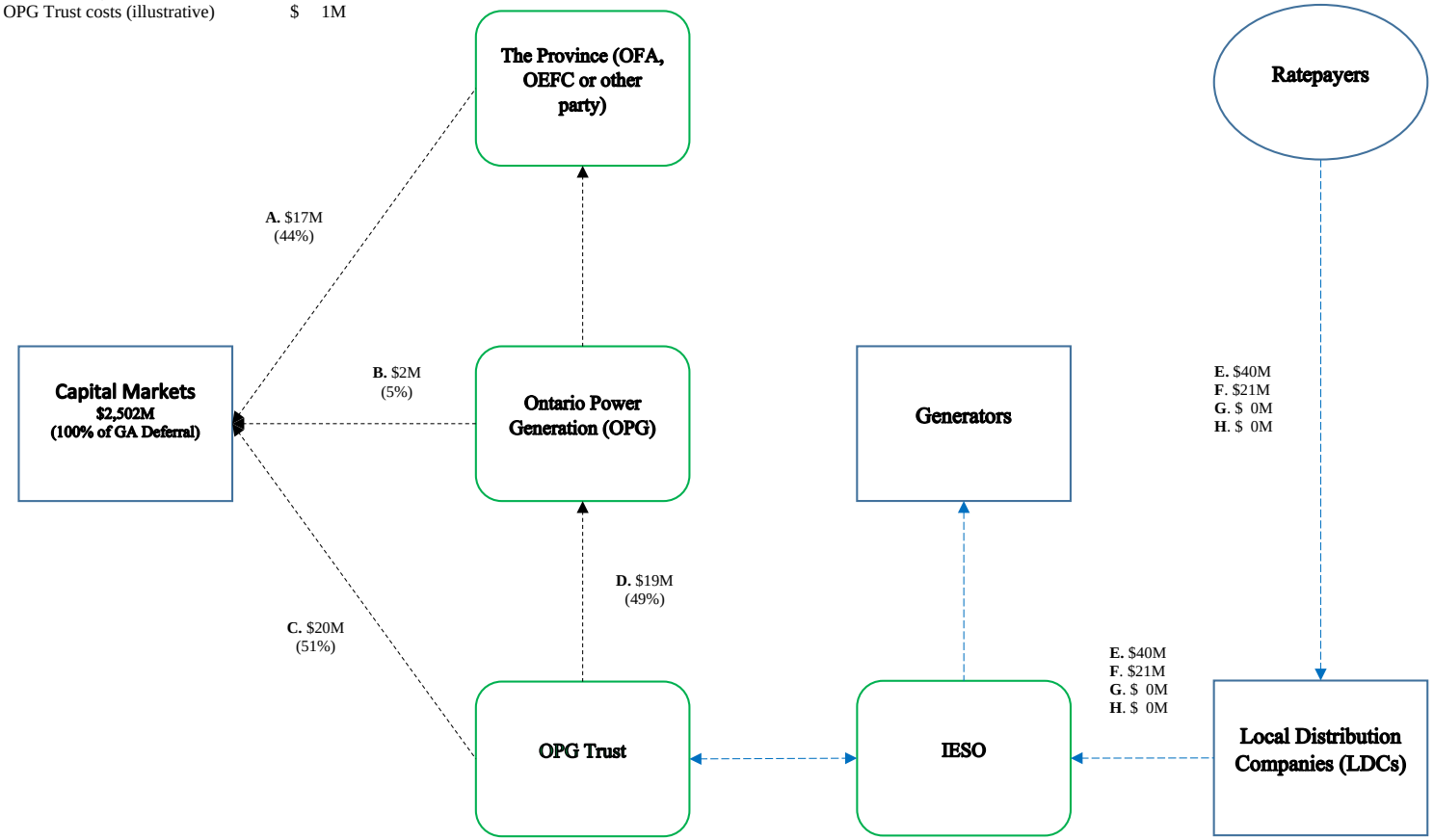
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Adam Prokop (416-325-6462)
Electricity and Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority
March 10, 2017

From:	John Kim
To:	Salman Qadir
Cc:	Bruno Amara
Subject:	IESO slides
Date:	Wednesday, April 26, 2017 11:34:14 AM
Attachments:	2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf

Hi Salman,

I have a fairly urgent request (hoping for end of day)….in the attached (SpringBreak17 and p. 15 of 80), we have slide 14 that shows the GA diagram. I want to insert the potential IESO funding requirement that we have summarized in our deck of yesterday. I'm open to an updated look but want to have it sent to Energy soon.

Looking for maybe 2 slides to potentially suggest Energy put in their TB submission.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

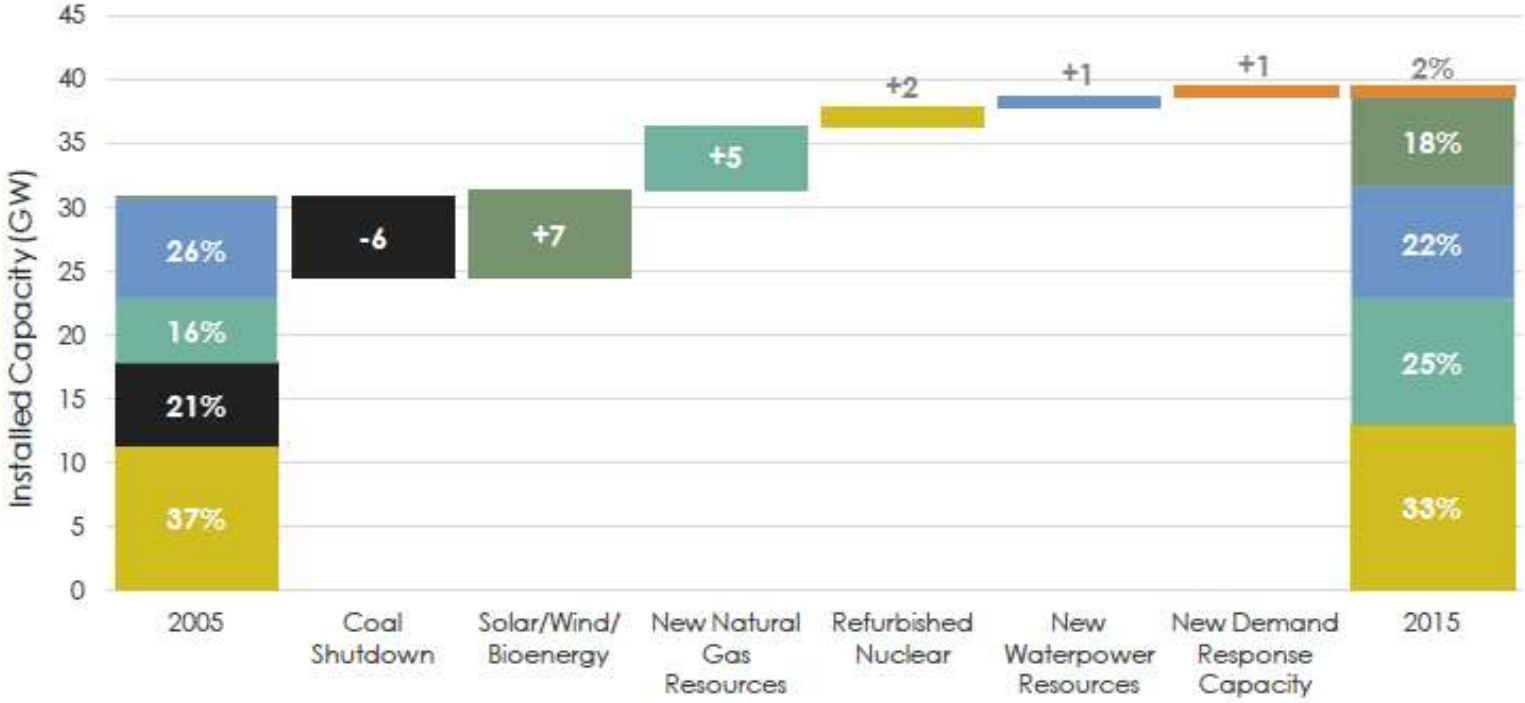
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



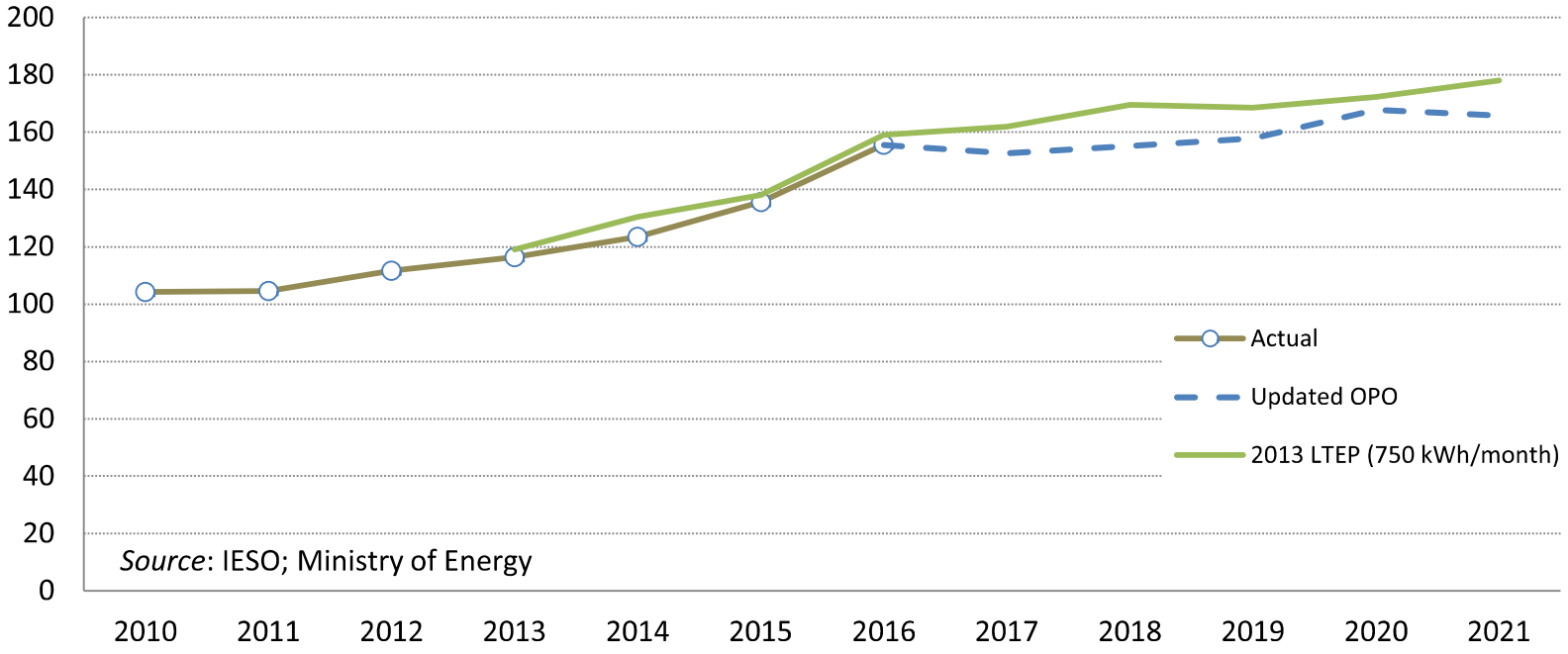
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

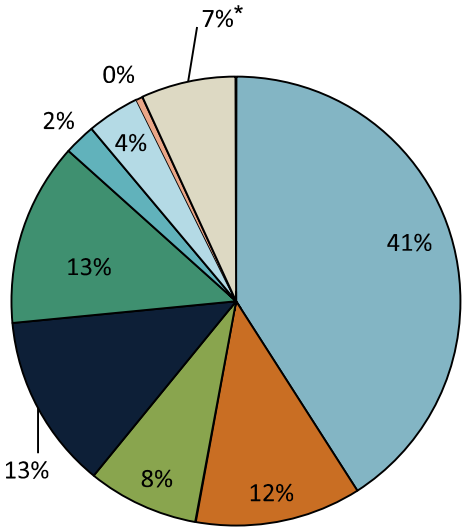
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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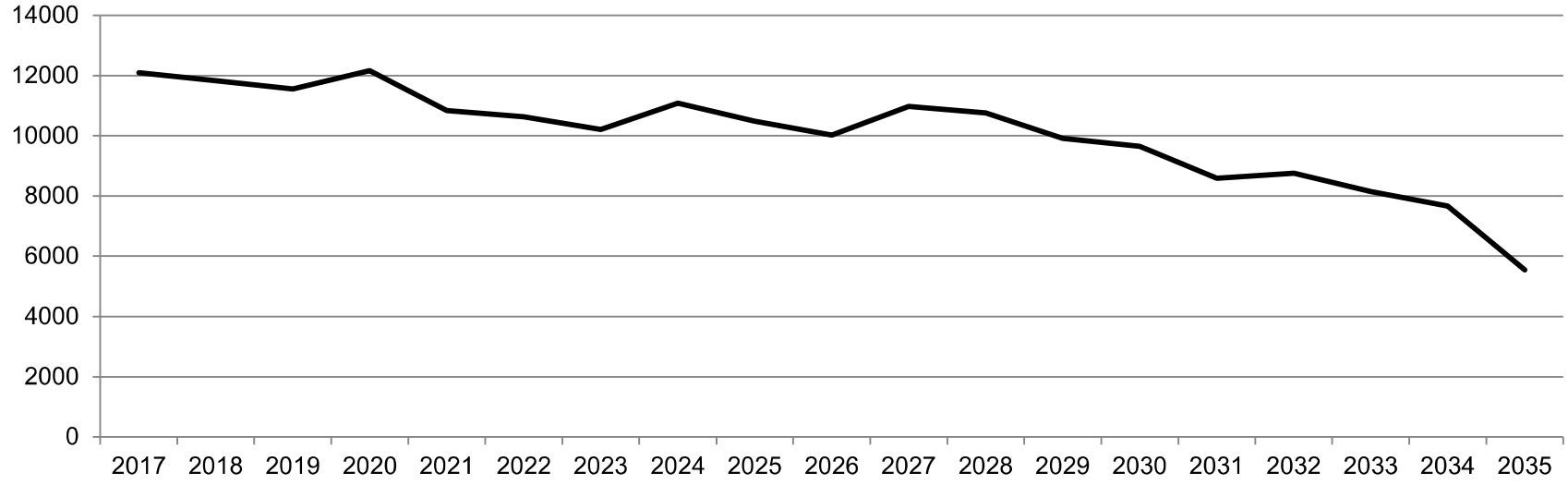
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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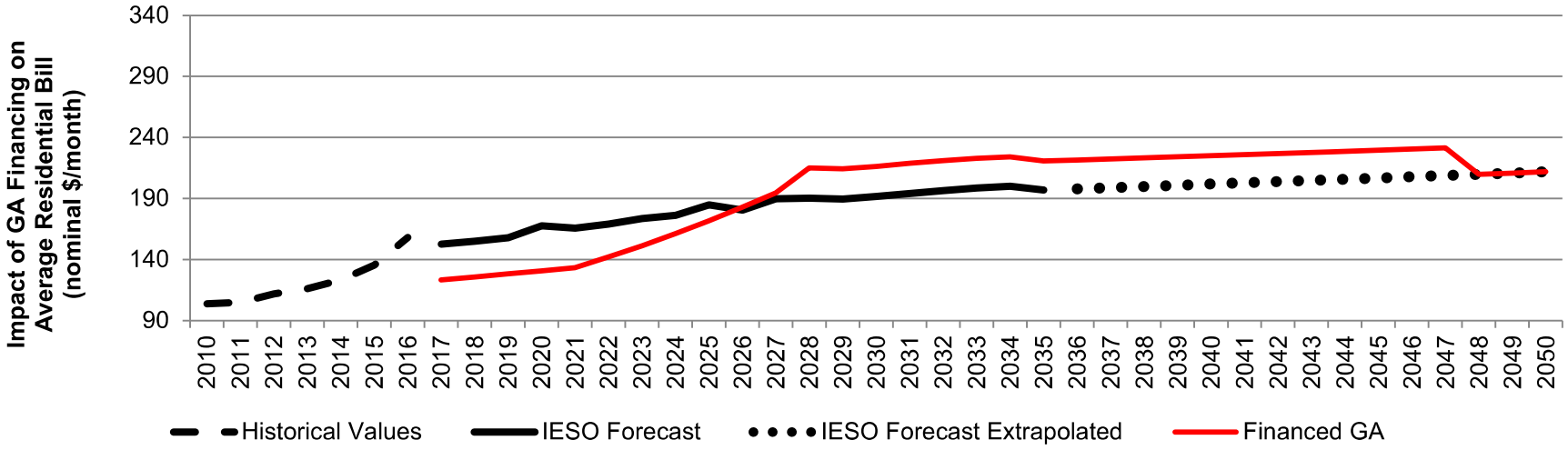
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

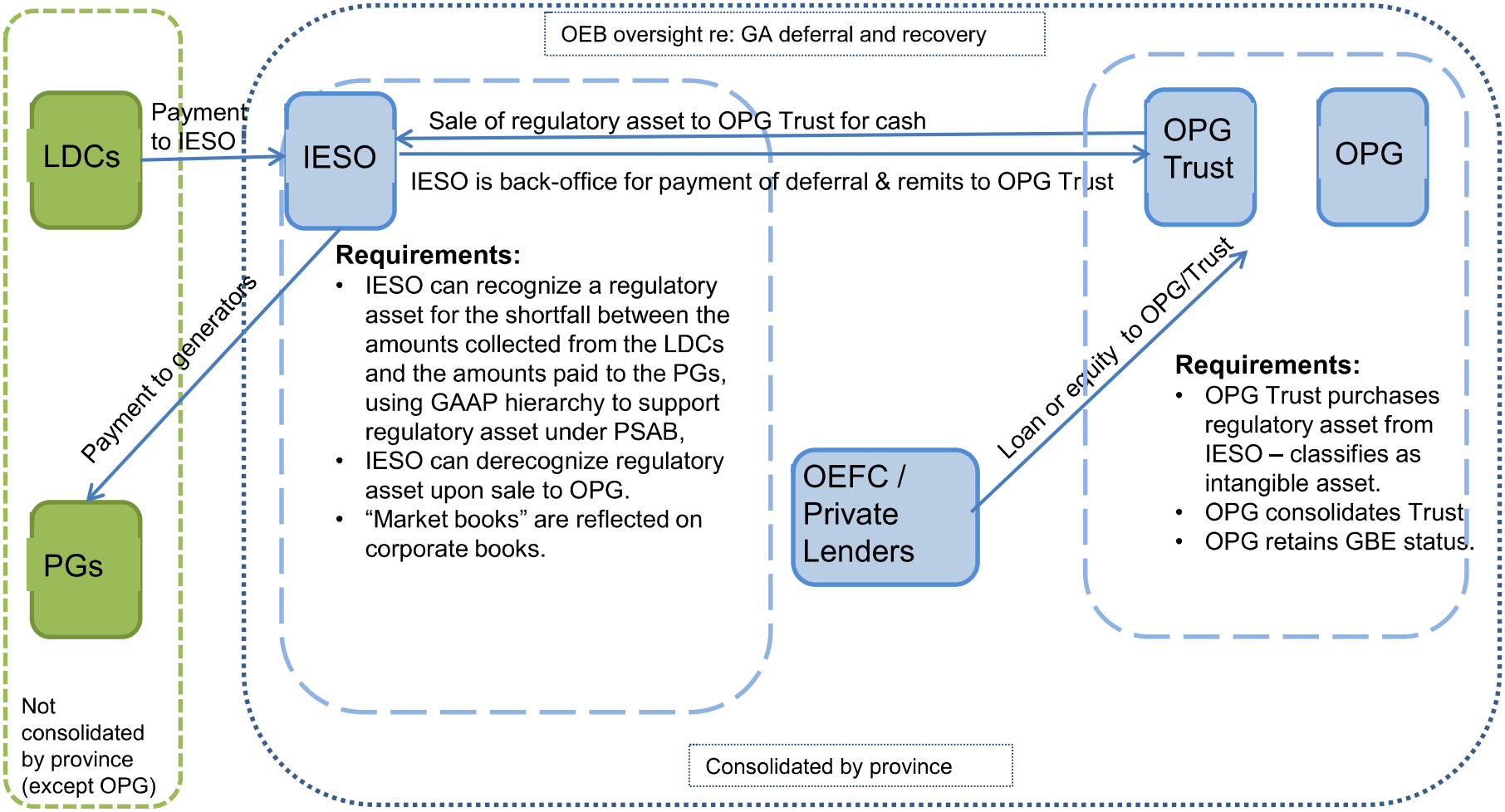
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

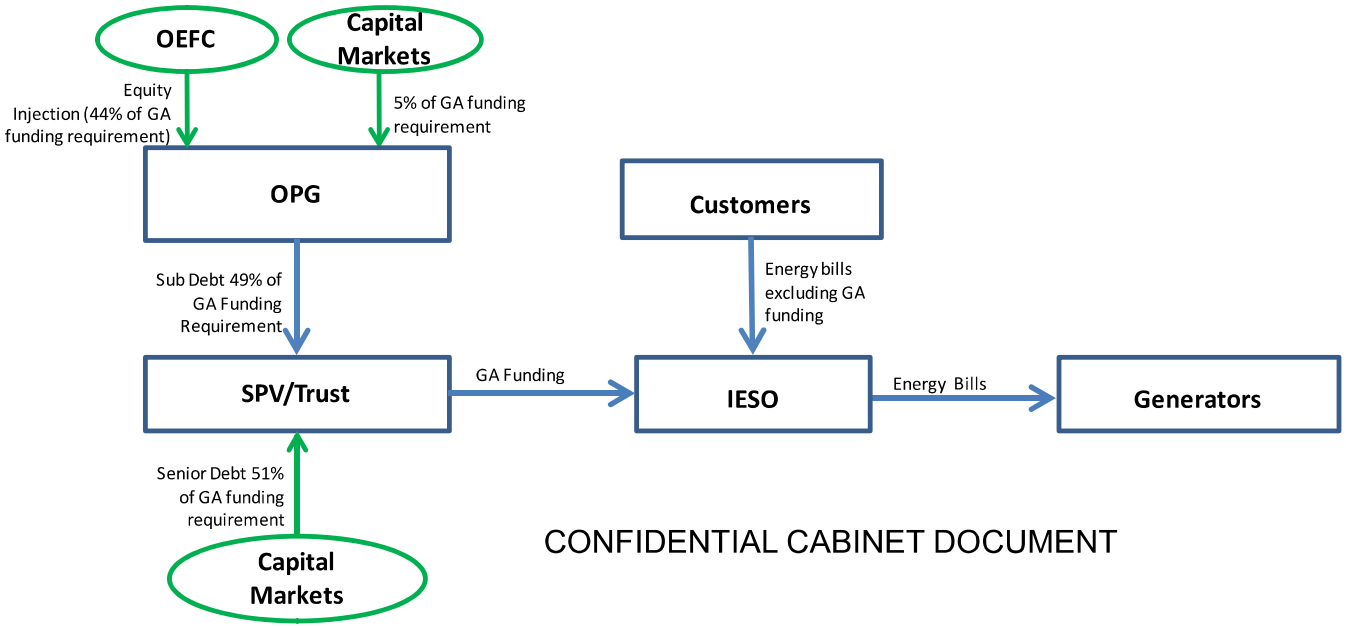
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

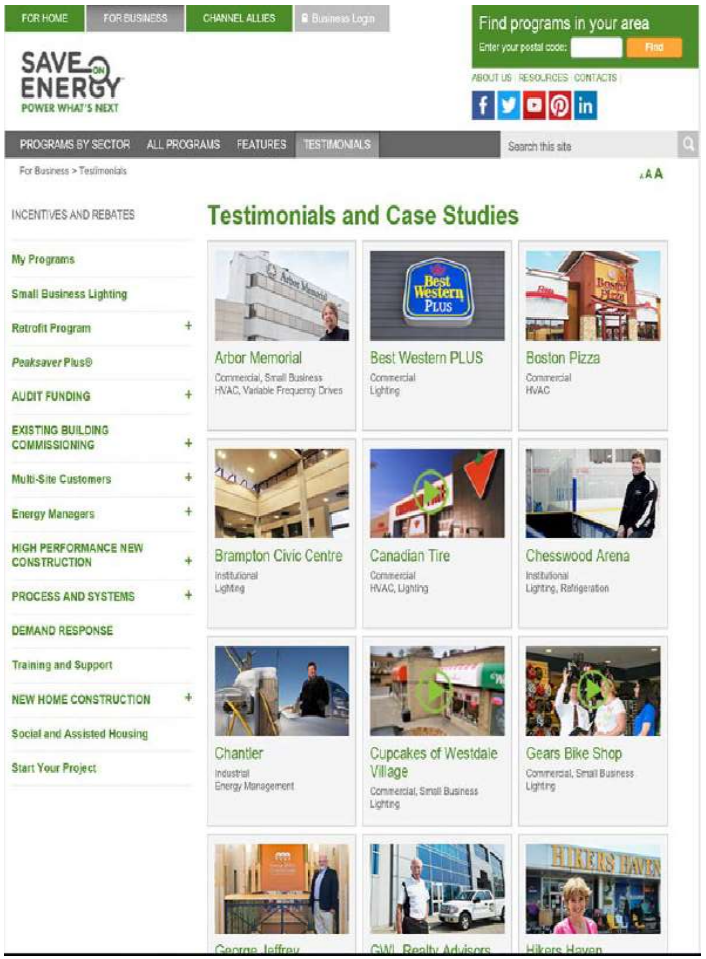
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



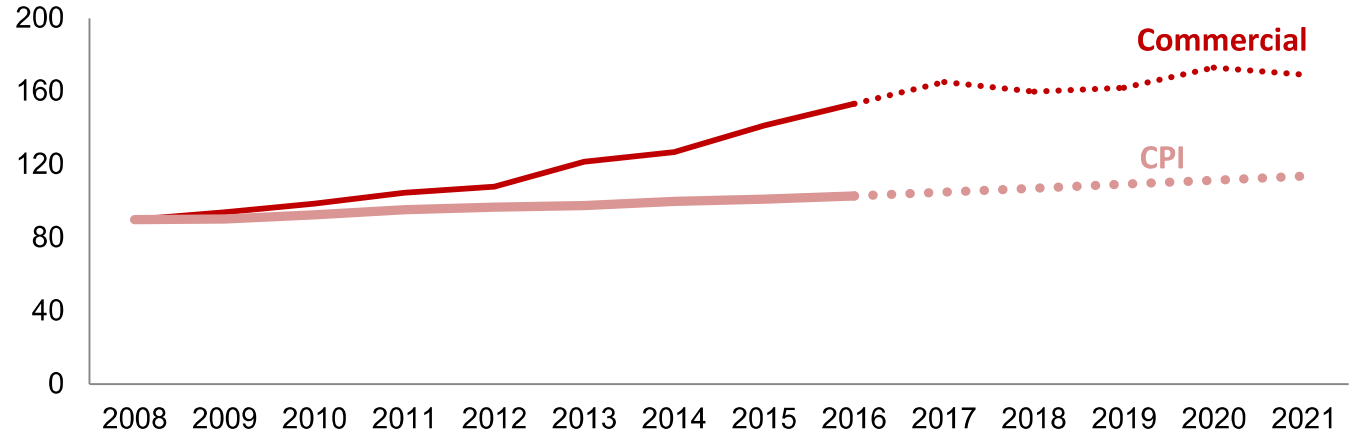
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

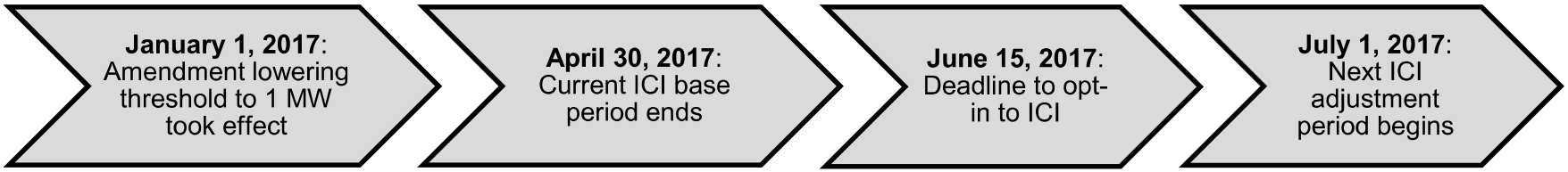
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

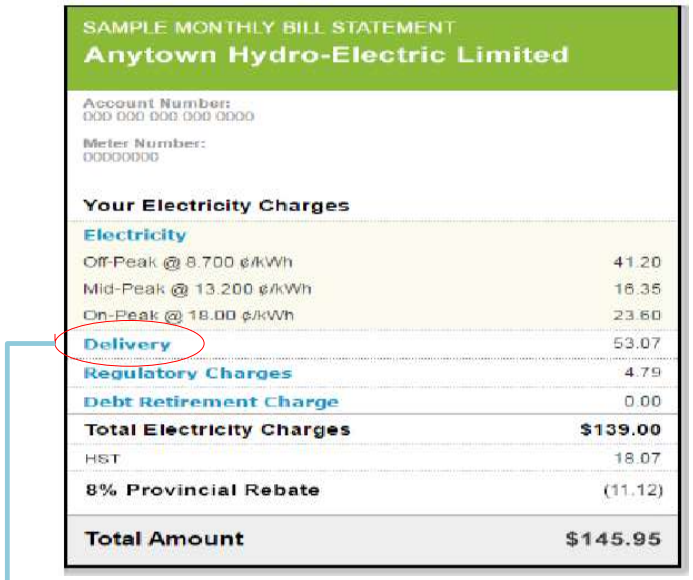
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

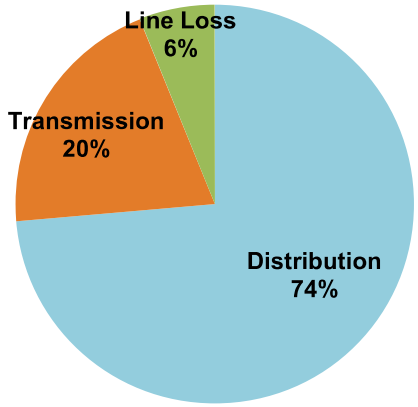
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

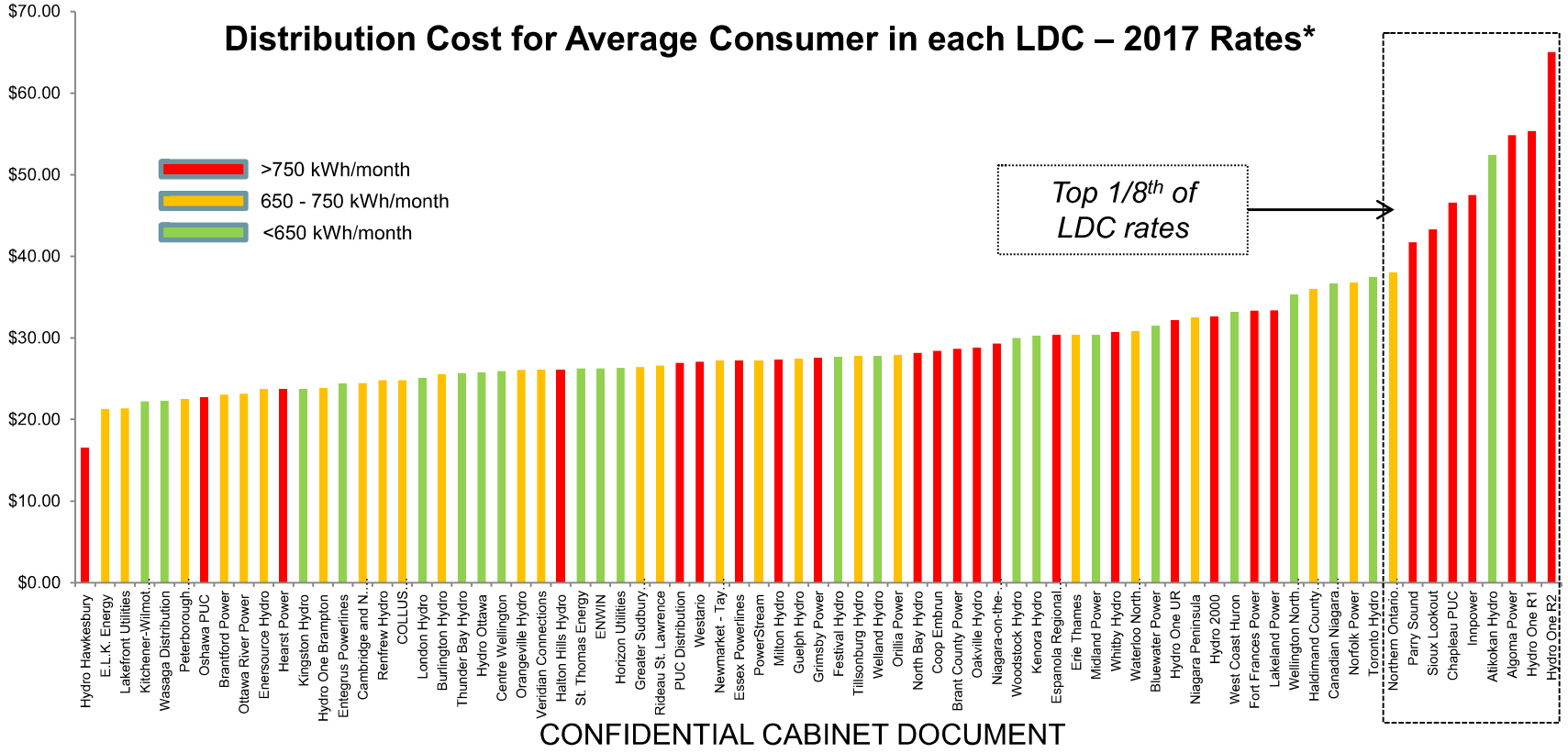
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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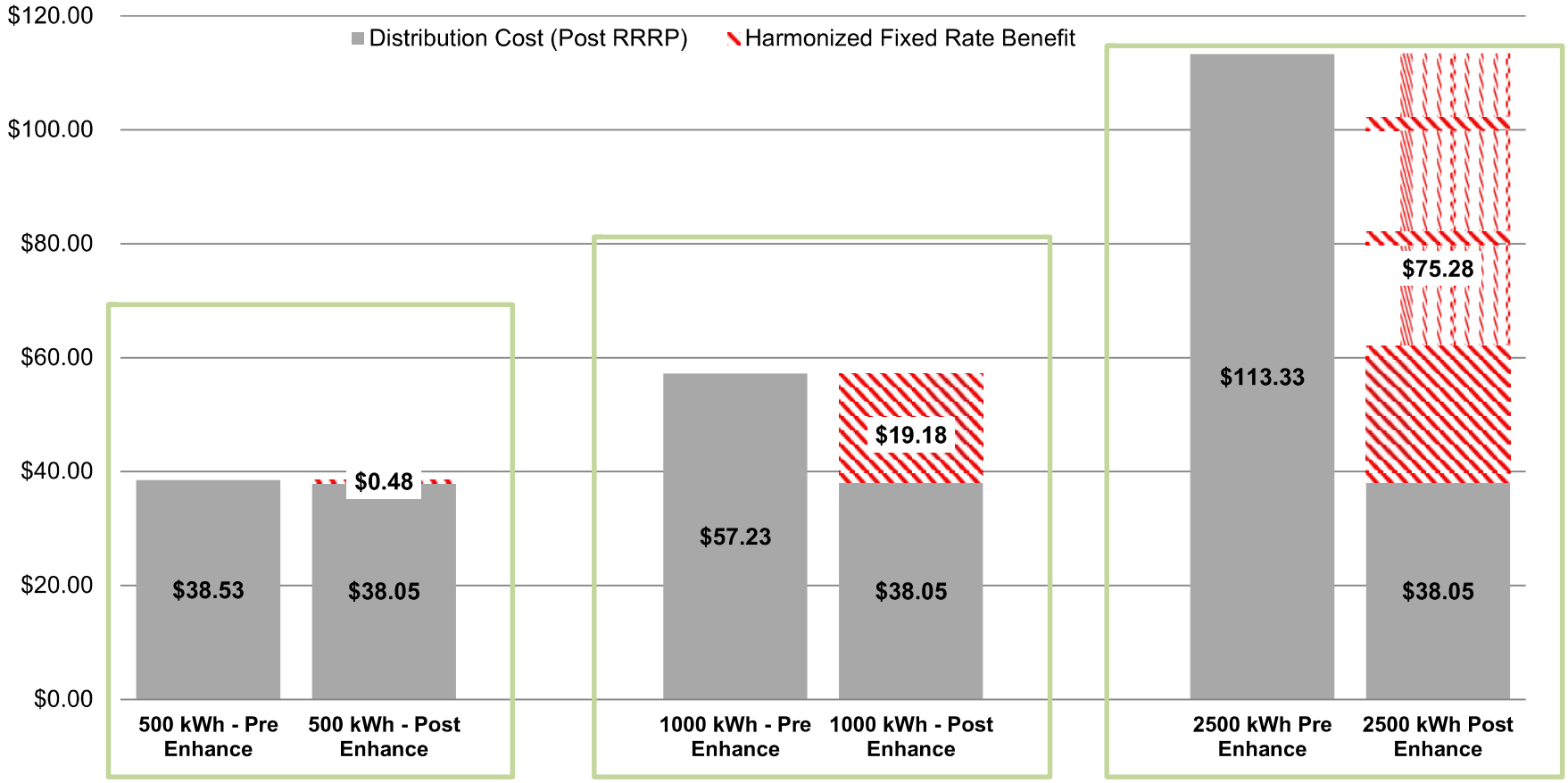
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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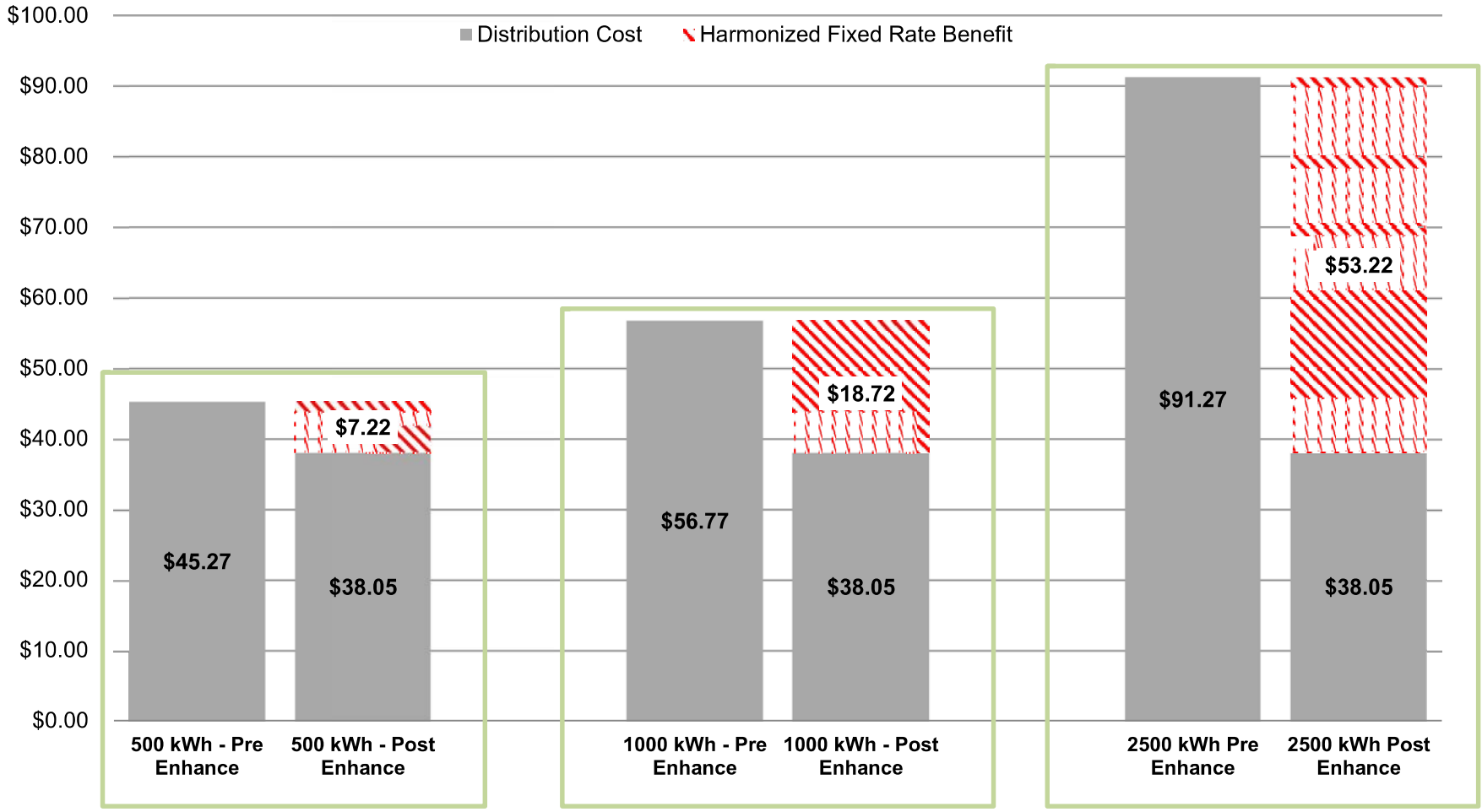
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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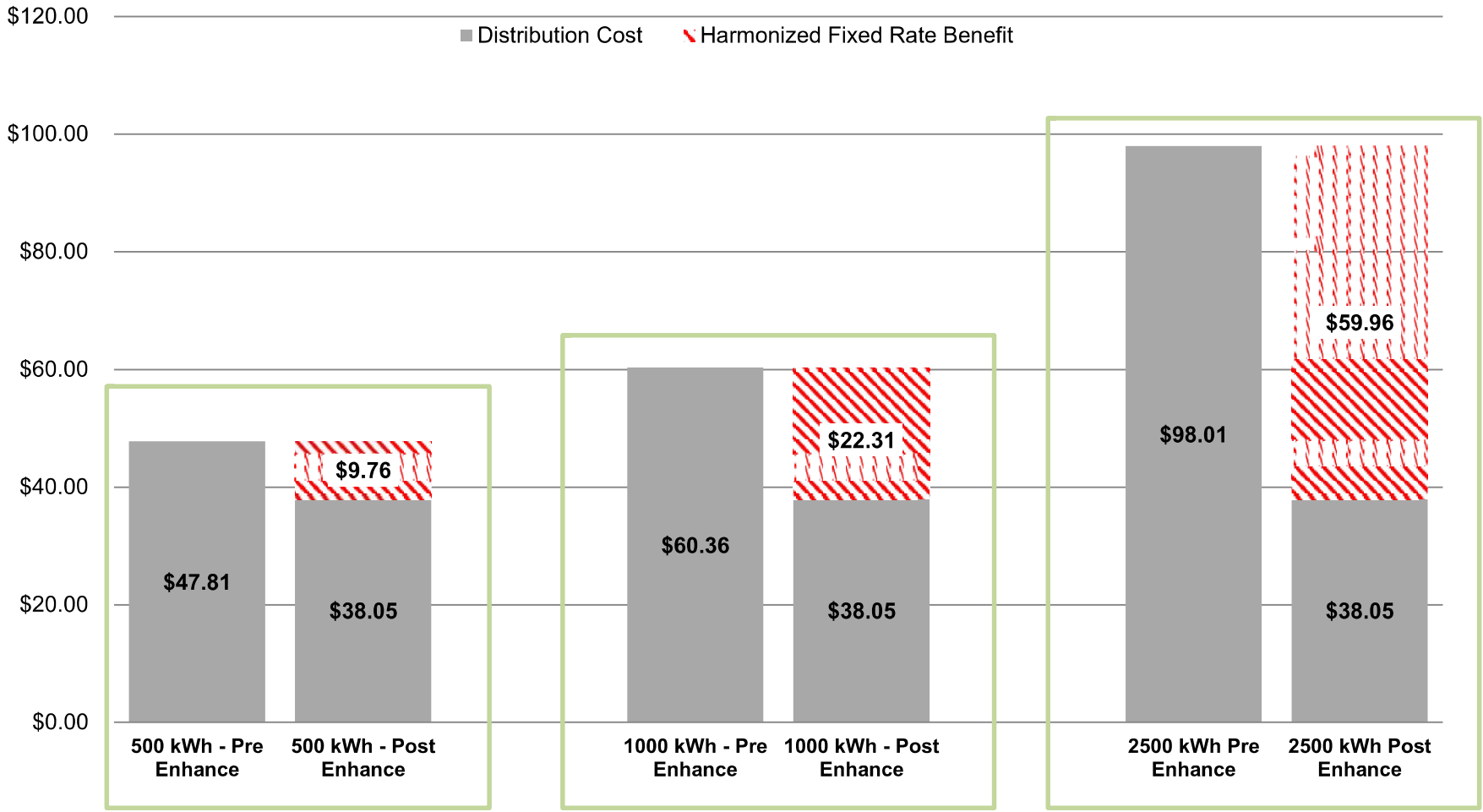
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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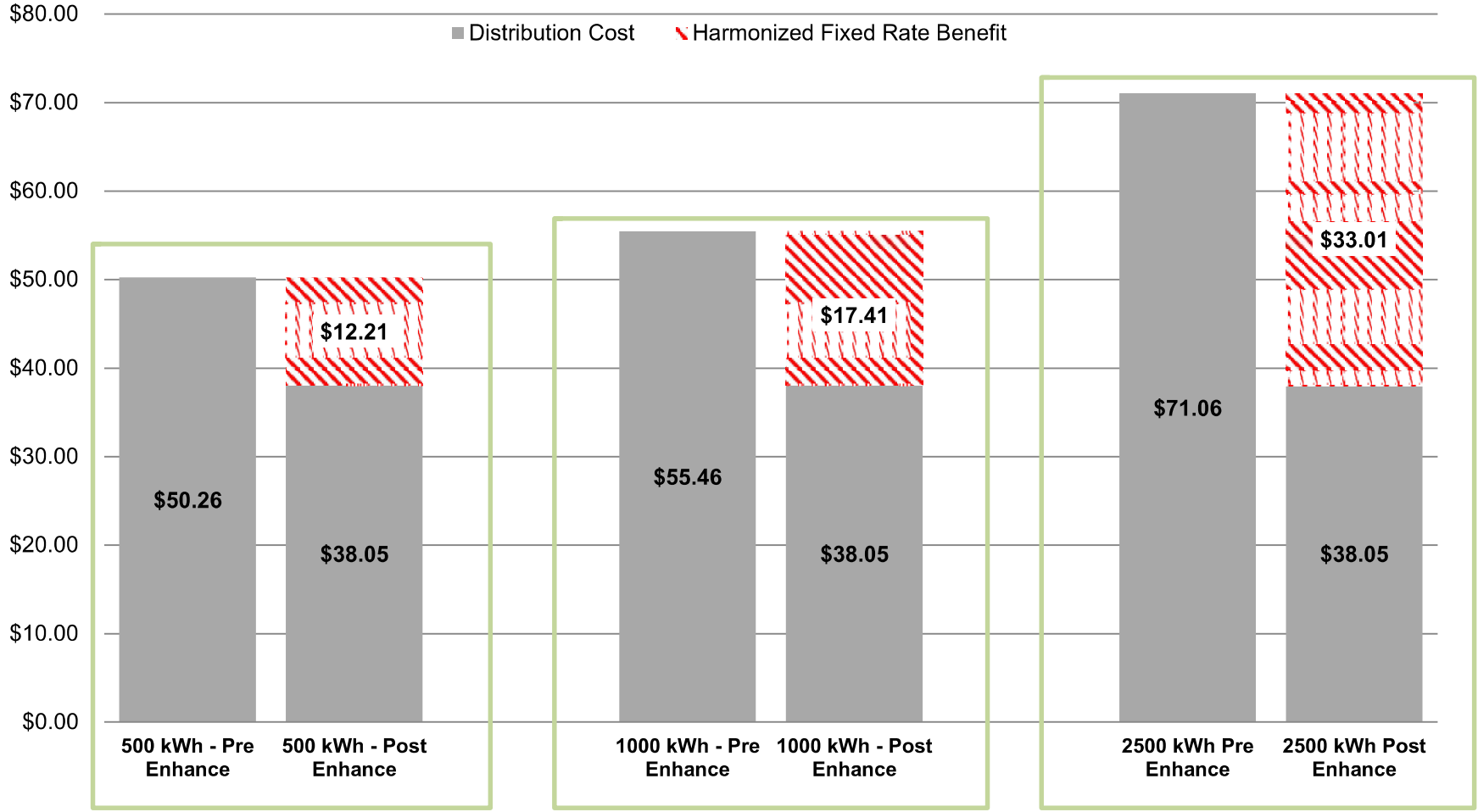
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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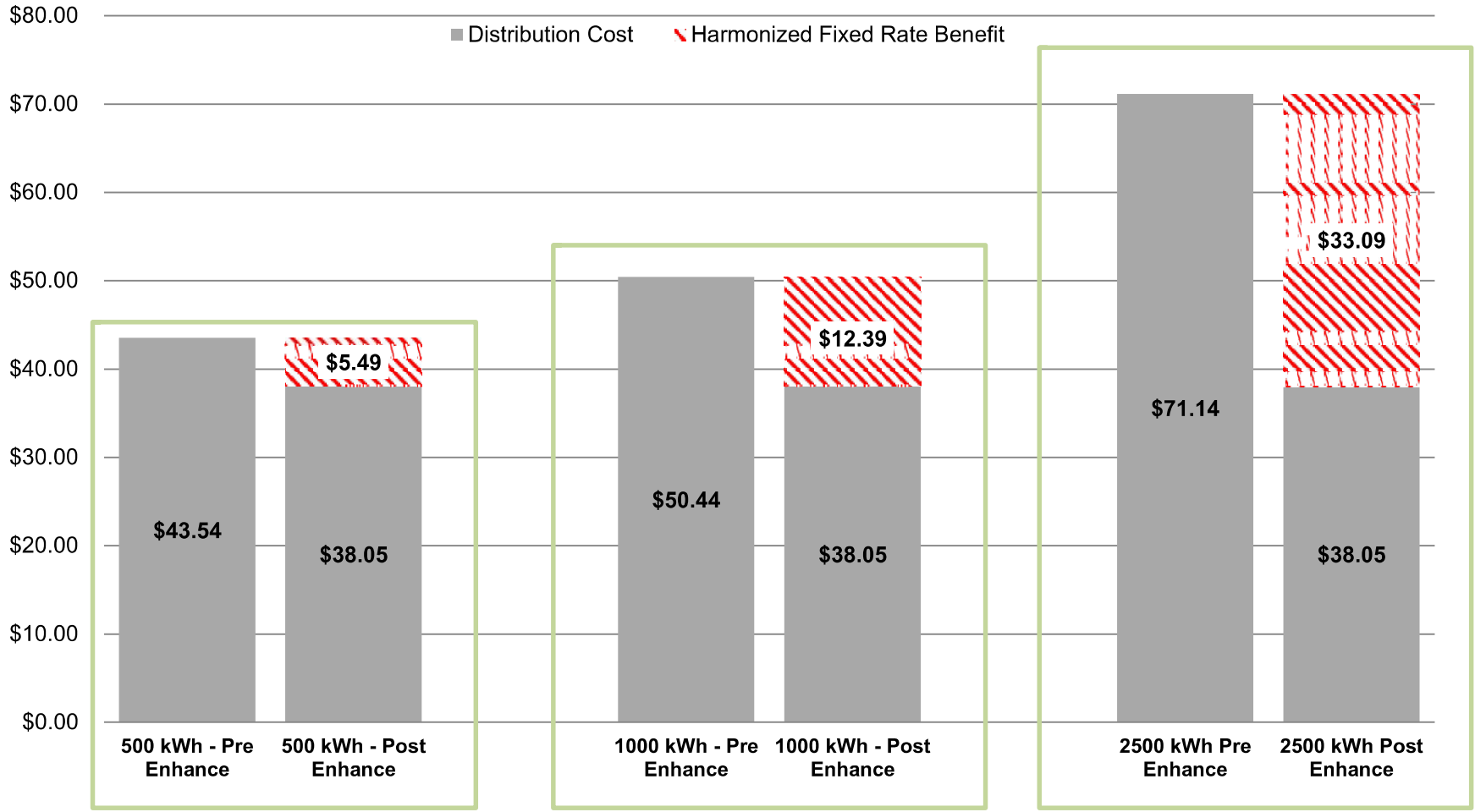
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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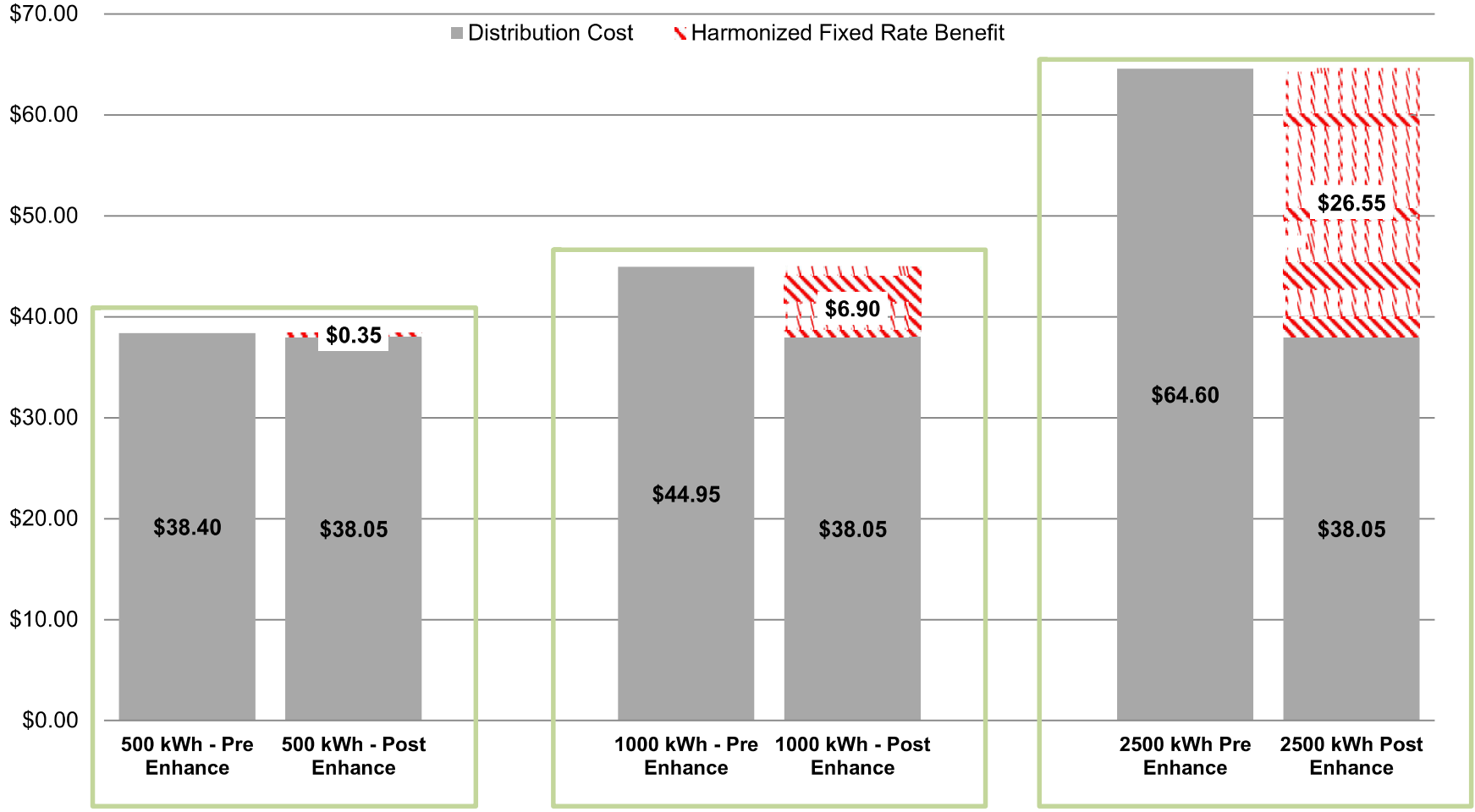
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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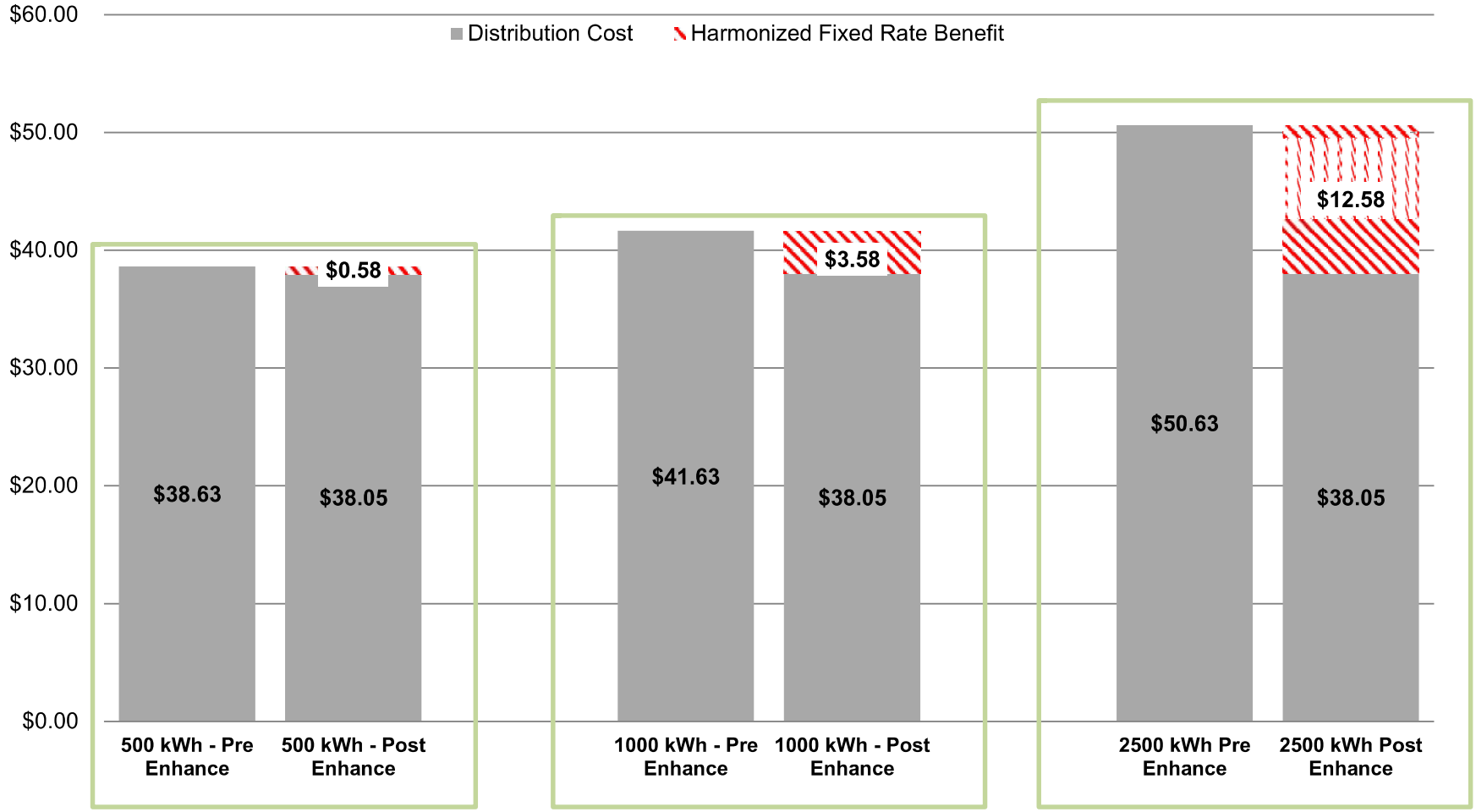
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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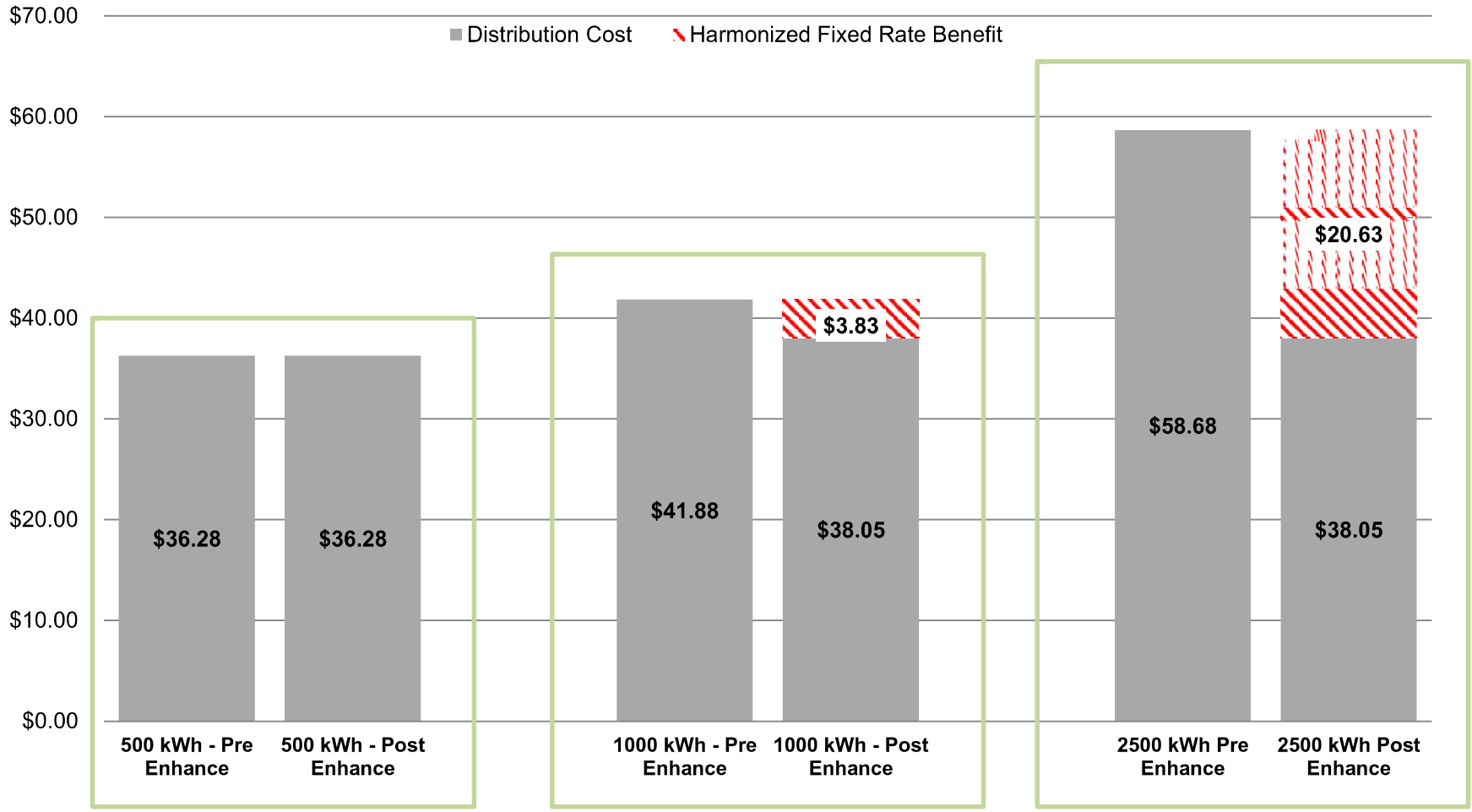
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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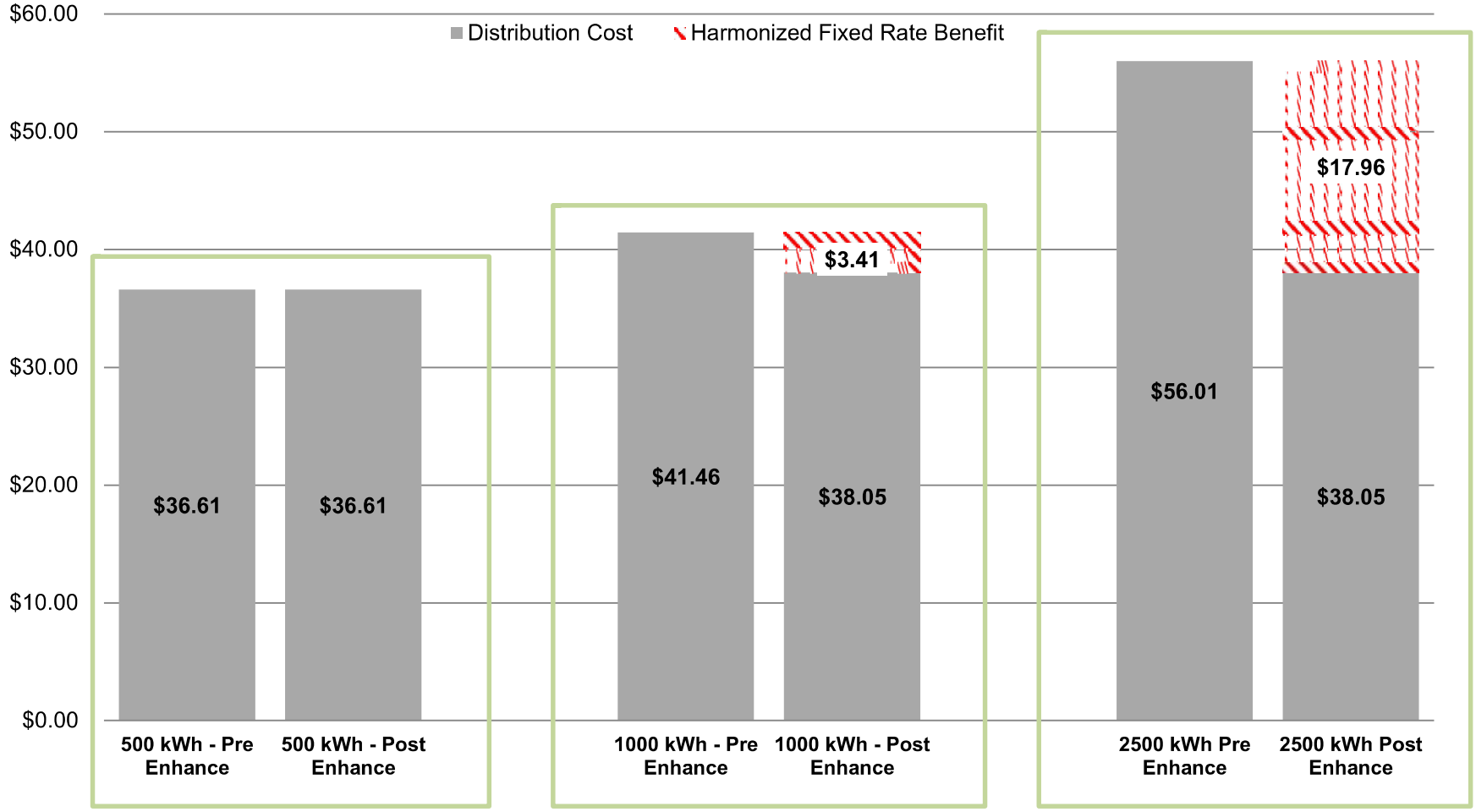
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

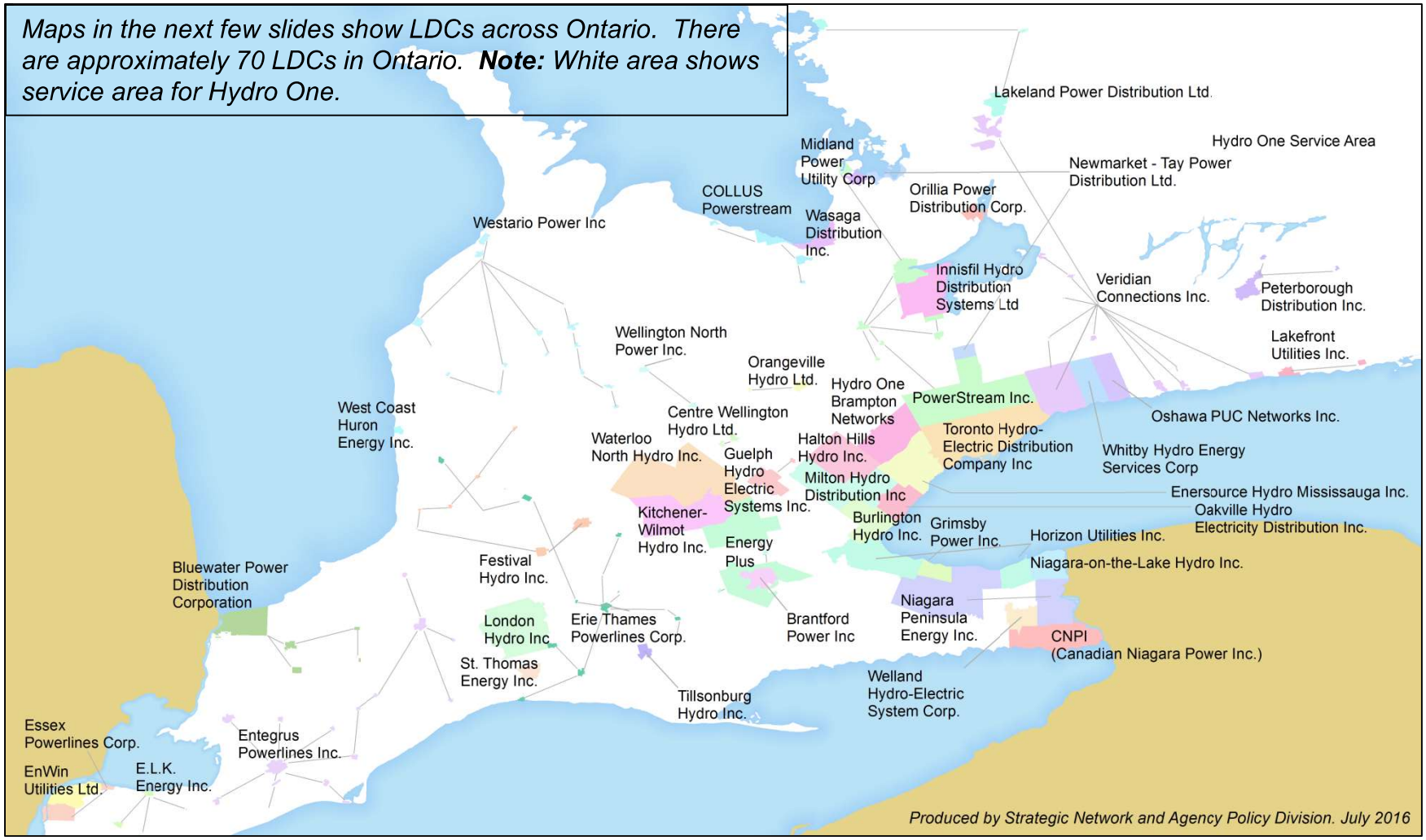
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

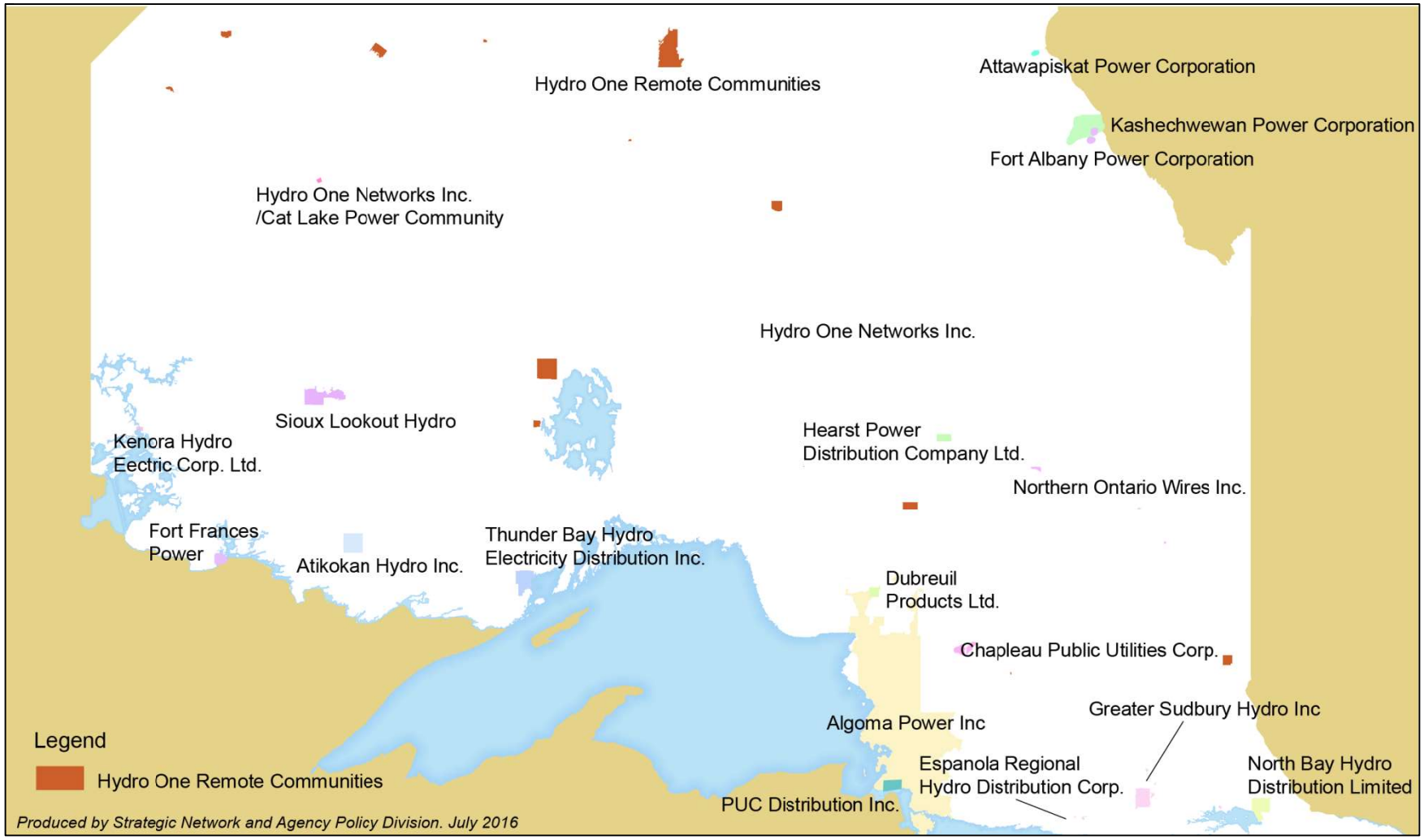
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

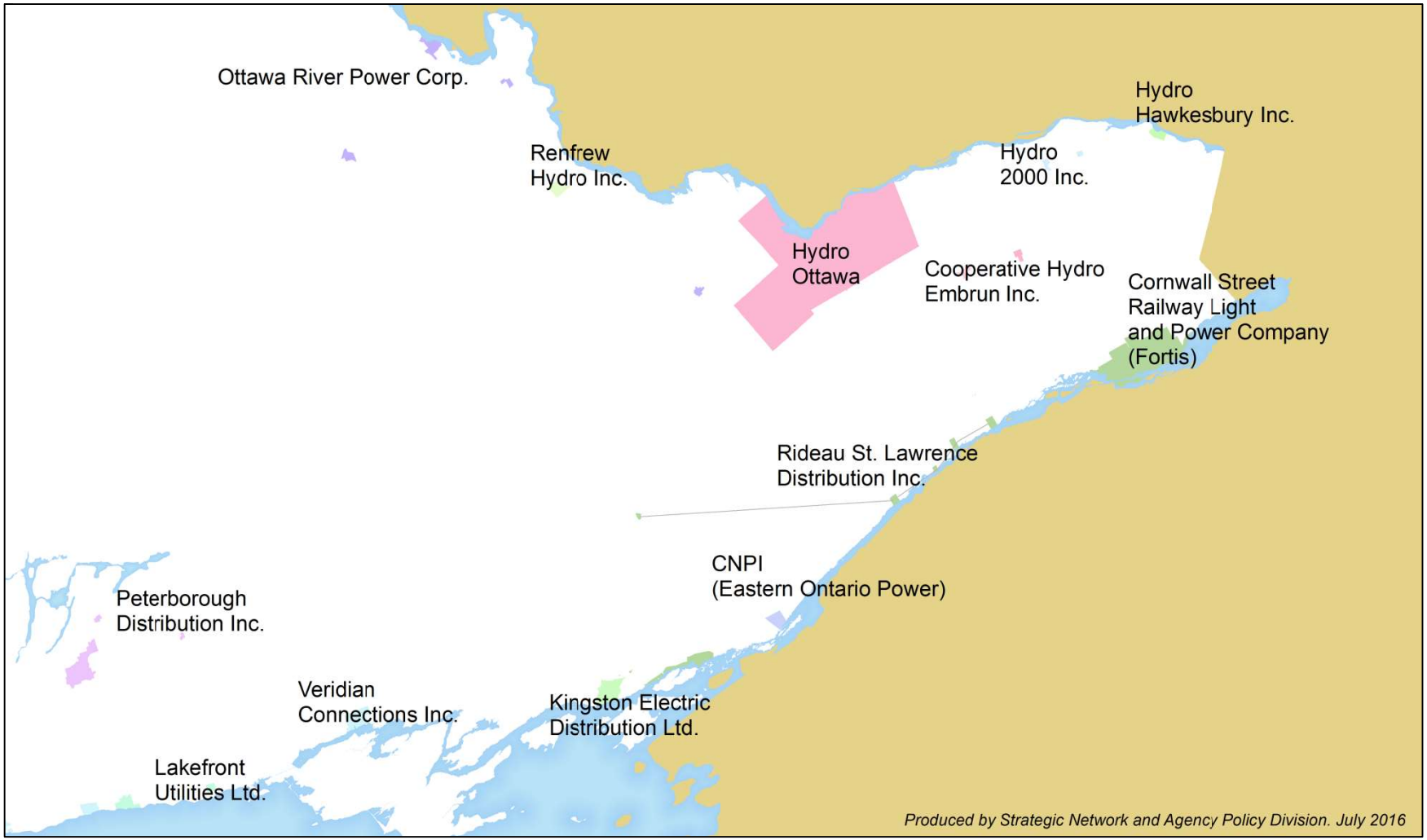
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

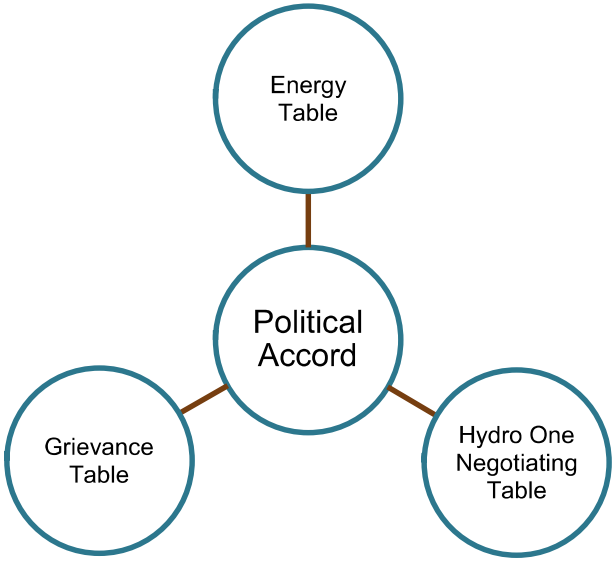
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

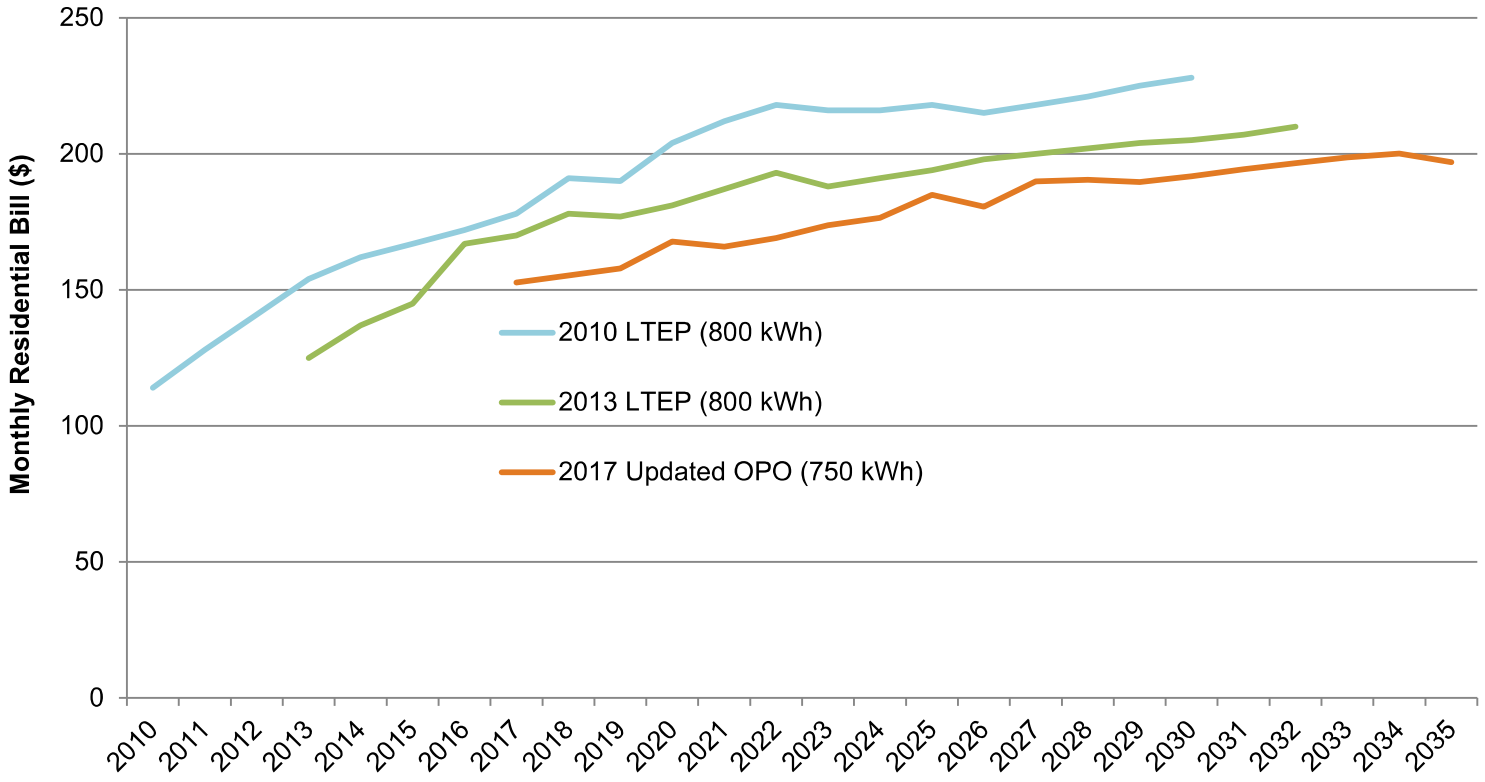
Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

CONFIDENTIAL CABINET DOCUMENT

Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

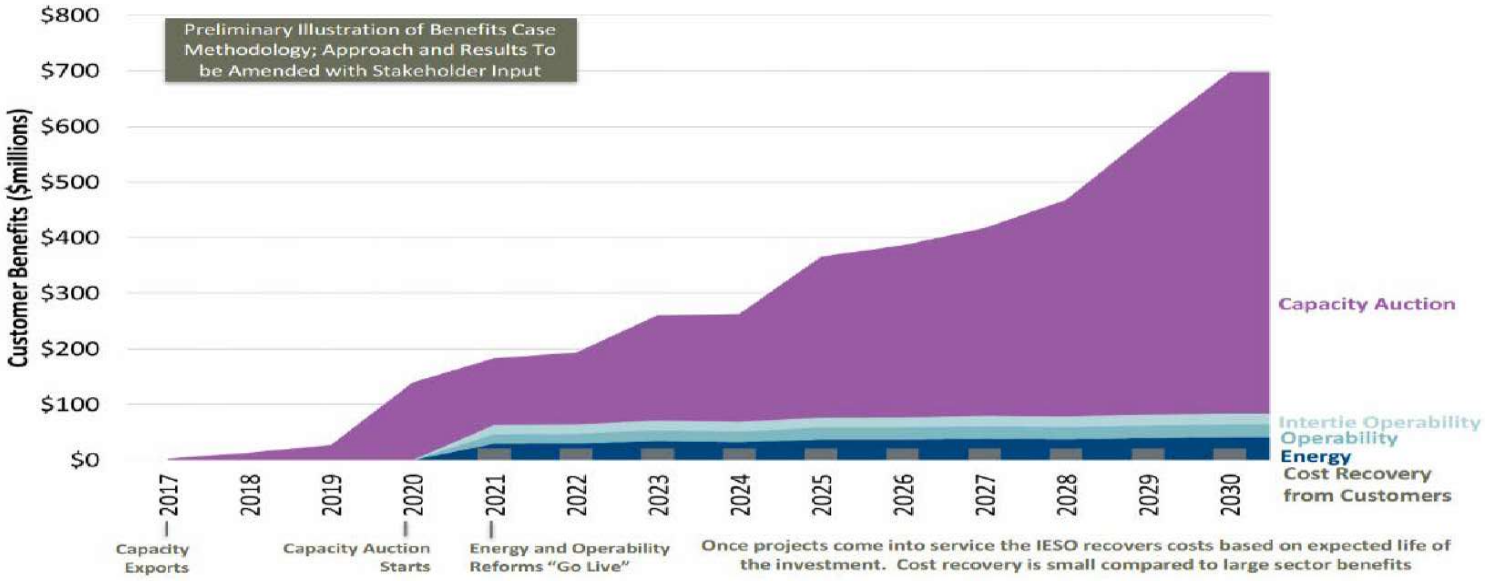
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

From:	Adam Prokop
To:	John Kim; Bruno Amara; Gavin He; Shajee Kathirgamanathan; Salman Qadir
Subject:	Legislation Overview - GA Financing
Attachments:	Legislation Review - Short Form.docx Legislation Review.docx

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For the meeting today, there is a short two-page summary attached as well as a more detailed document on the legislation.

Kind regards,

Adam Prokop

Legislation Overview

Article 1 - Basis of the act

- **Intergenerational fairness** can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Regulated Consumers on an equitable and cost effective basis.
- It has been determined that the **useful lives of many of the assets** developed under the Green Generation Initiative will **be in excess of the respective terms of their respective procurement contracts**.

Article 2 – Definitions

- **Transition charge** will be a **volumetric rate.**
- Suggests that there be a separate class, e.g., **Fair Hydro Eligible Consumers** or **Regulated Consumers**, used to define those who are eligible for the Fair Hydro Plan as it is not identical to RPP or OREC customers.
- There is a true-up clause that allows for any differences between actual and estimate costs to be recovered from (or returned to) ratepayers.

Article 4 – Transition Charges

- "**Transition Charge**" vaguely refers to all costs under the financing plan.
- Until paid by regulated consumers, the transition charge is a **non-bypassable indebtness** of the Regulated Consumer **to the Regulatory Asset Owner**.
    - Independent of other charges on a consumer's bill.
    - Irrevocable except for a manifest calculation error.
    - "In no case shall a funding obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan".
- The legislation determines the attribution methodology (i.e., how much each customer pays) for recovering the transition charges through the fair allocation plan, as well as the actual transition charges.
- The LDCs estimate the regulatory assets (consisting of the deferred charges) during the beginning of the period and remit this information to OEB.
- **Invoicing of Transition Charges**
    - Each LDC determines the transition charge, and before 35 days prior to the start of the reference period, must provide the OEB written notice of its estimate to OEB.
    - The OEB determines the allocation factor which is based on the legislation – what the Fair Hydro recovery rate will be on a volumetric basis. No later than 20 days before the reference period starts, the OEB informs each LDC of the charge for each consumer.

Article 5 – Collections and Remittances

- Essentially, the transition charges will be collected by LDCs and other agents similar to how other costs are recovered from ratepayers.
- On the last business day of each month, Servicer shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Absolute Assignees an amount equal to less of obligations and collections.
    - Daily remittance was suggested as "US rating agencies favour daily remittances".
- Under the legislation, sequestration may be permitted if collecting agents such as LDCs are not performing their duties.

Article 6 – Regulatory Asset

- There is no requirement for the OPG Trust to purchase regulatory assets from IESO
- It is suggested that there be a restriction on the sale of regulatory assets only to "Financing entities controlled by a single entity".
- Suggested that there be a time limit on the ability of IESO to create additional Regulatory Assets (10 years suggested) – in the Energy projections repayments start being made in 2026.
- Regulator asset owners have the right to bill, invoice, collect, and receive Transition Charges
    - This include **the right to determine the amount of Transition Charges** in accordance with the act.
    - It has not been decided if regulatory asset owners will be able to chase after individual consumers for payments or provide notice of amounts required for recovery by the OEB.

        - **OEB would be required to accept the amounts required for recovery for purposes of determining the amount of Transition Charges to be charged to consumers.**
    - Classifying the intangible asset as personal property upon which a pledge can be made.
        - Basically secures the rights of the regulatory assets as colalteral to the credit holders.

Article 7 – Fair Allocation Plan

- Allocation principles
    a. **Inflation period**: (between November 2017 – and April 2022) bill increases need to be capped at inflation (assumed at 2% for modeling purposes)]
    b. [**Transition Period**: (May 2022- April 2027) bills increased at a **consistent rate which is set so that the borrowing will not exceed the Trust's capacity**, which is determined by the Finance Service Manager (i.e., OPG**)**]
    c. [**Amortization Period**: (May 2027-April 2047) equitable distribution of **Finance Amount** among Regulated Consumers]
- The Province determines what is considered "equitable distribution" with **sole and absolute discretion**.
- The Province can terminate the plan as long as it does not impair any regulatory asset, outstanding funding obligation, or any transition charges.

Article 8 – The IESO Funding Shortfall

- The IESO is only allowed to sell (i.e., a disposition) its regulatory asset to OPG if **OPG confirms in writing that the disposition complies with the financing plan** and is supported by evidence of the related funding obligations.

Article 9 – The Financing Plan

- **OPG is the entity with the power to prepare, implement, and amend the financing plan for OPG Trust.**
- **OPG has the right to withdraw its financing plan at any time** if it determines that implementing the Financing Plan in such manner would not be in the best interests of OPG Trust.
- OEB has been suggested to review the financing plan charges (although an attested by an officer from OPG has been suggested as a replacement).

Article 10 – Compliance Matters

- The legislation is attempting to have the OPG Trust mechanism excluding from OPG's rate regulation and any rate setting process except for any operating fees that me be received by OPG (i.e., any actual profits earned in excess of the cost of financing).

Article 11 – Province's role

- Legislation to ensure that Province cannot interfere
- Still considering if a guarantee needs to be in place in case there is a change in law, or if there is a market disruption.
- Province must compensate losses from interference.

Article 12 and 13

- If any conflict from laws, this legislation governs the **conflict**.
- **Severability** – if one part of the act is unconstitutional, this does not affect the other parts of the act.

Schedules 1, 2 and 3

- Nothing material for estimates and only guidelines for the Financing Plan.

Legislation Overview

Article 1 - Basis of the act

- Intergenerational fairness can be achieved by charging the costs and benefits of the Green Generation Initiative to present and future Regulated Consumers on an equitable and cost effective basis.
- It has been determined that the useful lives of many of the assets developed under the Green Generation Initiative will be in excess of the respective terms of their respective procurement contracts.

Article 2 – Definitions

- Transition charge will be a volumetric rate.
- **"Funding Obligation**" means, in respect of an Absolute Assignee, each payment obligation (including, without limitation, each obligation to pay: principal, interest, premiums and other financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Managers, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges) incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.
- **Financing Plan**:
    - Only a "guideline is provided".
    - The financing plan can be amended in accordance with Article 9, from time to time, by OPG.
- Suggests that there be a separate class, e.g., **Fair Hydro Eligible Consumers** or **Regulated Consumers**, used to define those who are eligible for the Fair Hydro Plan as it is not identical to RPP or OREC customers.
- There is a true-up clause that allows for any differences between actual and estimate costs to be recovered from (or returned to) ratepayers.

Article 4 – Transition Charges

- "**Transition Charge**" means, the amount recoverable from a Regulated Consumer in respect of a Reference Period, being the Period Finance Charge as allocated to such Regulated Consumer in accordance with Article 4(3) on a monthly basis.
    - "**Period Finance Charges**" means, for a Reference Period, the sum of (a) the Estimate of the Finance Amount (b) the True-Up Amount in respect of the applicable True-Up Period and (c) an adjustment amount as may be prescribed to account for estimated collection shortfalls and collection delays in respect of amounts under (a) and (b).
    - "**Finance Amount**" means, for a Reference Period, the sum (without duplication) of the following amounts that are or become payable during the Reference Period in respect of all Absolute Assignees
        - (a) **Repayments**; a payment by an Absolute Assignee made to satisfy a Repayment Obligation, other than to the extent that the payment is made by applying the proceeds of a Refinancing or from Finance Reserve Withdrawals.
        - (b) **Net Funding Costs**: the amount by which (a) the aggregate of all interest, scheduled principal and other periodic finance charges accruing due and becoming payable or paid by or on behalf of the Absolute Assignee during the Reference Period in respect of its Funding Obligations
        - **(c) Redemption Amounts:** the amount payable by or on behalf of an Absolute Assignee to redeem, prepay or repurchase a **Funding Obligation** incurred by or on behalf of the Absolute Assignee, including any premium, make-whole or other additional amount becoming payable under the Funding Obligation to give effect to such redemption, prepayment or repurchase.
        - (d) **Finance Reserve Deposits**: the amount withdrawn during the Reference Period from deposits previously made to pre-fund, collateralize, over-collateralize or establish reserves for the payment

of Funding Obligations or to pay amounts in respect of related contingencies that had been specified in the Financing Plan

- (e) **Additional Funding Charges:** the fees, charges, expenses, costs, indemnities, reimbursements and other amounts (including any applicable tax amounts) that are or become payable by or on behalf of the Absolute Assignee during the Reference Period and that were incurred or committed to directly or indirectly by the Absolute Assignee in connection with the incurrence of Funding Obligations under the Financing Plan

- Until paid by regulated consumers, the transition charge is a **non-bypassable indebtness** of the Regulated Consumer **to the Regulatory Asset Owner**.
  - Independent of other charges on a consumer's bill.
  - Irrevocable except for a manifest calculation error.
  - "In no case shall a funding obligation incurred under the Financing Plan be affected by a subsequent amendment to the Fair Allocation Plan".
- The legislation determines the attribution methodology (i.e., how much each customer pays) for recovering the transition charges through the fair allocation plan, as well as the actual transition charges.
- The LDCs estimate the regulatory assets (consisting of the deferred charges) during the beginning of the period and remit this information to OEB.
- **Invoicing of Transition Charges**
  - Each LDC determines the transition charge, and before 35 days prior to the start of the reference period[1], must provide the OEB written notice of its estimate to OEB.
  - The OEB determines the allocation factor which is based on the legislation – what the Fair Hydro recovery rate will be on a volumetric basis. No later than 20 days before the reference period starts, the OEB informs each LDC of the charge for each consumer.

Article 5 – Collections and Remittances

- Essentially, the transition charges will be collected by LDCs and other agents similar to how other costs are recovered from ratepayers.
- On each Settlement Date[2], Servicer shall remit all amounts on deposit in its Regulatory Asset Account to or to the account of the Absolute Assignees an amount equal to the Investment Remittance[3] for the related month.
  - Daily remittance was suggested as "US rating agencies favour daily remittances".
- Under the legislation, sequestration may be permitted if collecting agents such as LDCs are not performing their duties.

Article 6 – Regulatory Asset

- There is no requirement for the OPG Trust to purchase regulatory assets from IESO
- It is suggested that there be a restriction on the sale of regulatory assets only to "Financing entities controlled by a single entity".
- Suggested that there be a time limit on the ability of IESO to create additional Regulatory Assets (10 years suggested) – in the Energy projections repayments start being made in 2026.
- Regulator asset owners have the right to bill, invoice, collect, and receive Transition Charges
  - This include **the right to determine the amount of Transition Charges** in accordance with the act.
  - It has not been decided if regulatory asset owners will be able to chase after individual consumers for payments or provide notice of amounts required for recovery by the OEB.

[1] "Reference Period" means (a) the period from (and including) the Measurement Date to (and including) October 30, 2017, (b) each six month period commencing [May 1st and November 1st] thereafter and (c) any other period specified as such in the Fair Allocation Plan.

[2] Last business day of any month.

[3] Lesser of the sum of funding obligations due and payable by all absolute assignees in the month, and the actual payments remitted.

        - **OEB would be required to accept the amounts required for recovery for purposes of determining the amount of Transition Charges to be charged to consumers.**
    - Classifying the intangible asset as personal property upon which a pledge can be made.
        - Basically secures the rights of the regulatory assets to the credit holders.

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- Allocation principles
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    c. [**Amortization Period**: (May 2027-April 2047) equitable distribution of **Finance Amount** among Regulated Consumers]
- The Delegate (the Province) determines what is considered "equitable distribution" with **sole and absolute discretion**.
- The Province can terminate the plan as long as it does not impair any regulatory asset, outstanding funding obligation, or any transition charges.

Article 8 – The IESO Funding Shortfall

- The IESO is only allowed to sell (i.e., a disposition) its regulatory asset to OPG if OPG confirms in writing that the disposition complies with the financing plan and is supported by evidence of the related funding obligations.

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- OPG is the entity with the power to prepare, implement, and amend the financing plan for OPG Trust (or any replacement entity).
- OPG has the right to withdraw its financing plan at any time if it determines that implementing the Financing Plan in such manner would not be in the best interests of OPG Trust.
- OEB has been suggested to review the financing plan charges (although an attested by an officer from OPG has been suggested as a replacement).

Article 10 – Compliance Matters

- The legislation is attempting to have the OPG Trust mechanism excluding from OPG's rate regulation and any rate setting process except for any operating fees that me be received by OPG (i.e., any actual profits earned in excess of the cost of financing).

Article 11 – Province's role

- Legislation to ensure that Province cannot interfere
- Still considering if a guarantee needs to be in place in case there is a change in law, or if there is a market disruption.
- Province must compensate losses from interference.

Article 12 and 13

- (2) Conflict of law – In the event of conflict between this Act and any other law of the Province regarding the attachment, assignment or perfection, or the effect of perfection, or priority of any Disposition or Pledge, this Act shall govern to the extent of the conflict

- **Severability** - If any Article, Section, paragraph or subparagraph of this Act or the application thereof to any person, circumstance or transaction is held by a court of competent jurisdiction to be unconstitutional or invalid, the unconstitutionality or invalidity shall not affect the constitutionality or validity of any other Article, Section, paragraph or subparagraph of this act or its application or validity to any person, circumstance or transaction, including the irrevocability of Transition Charges, the validity of the Regulatory Asset, the incurrence of any Funding Obligation, any Disposition, any Pledge, or the collection and recovery of Transition Charge Collections.

Schedules 1, 2 and 3

- Nothing material for estimates and only guidelines for the Financing Plan.

From:	Adam Prokop
To:	John Kim; Francisco Chinchon; Bruno Amara
Cc:	Shajee Kathirgamanathan; Salman Qadir; Gavin He
Subject:	Legislation rates and OEB
Date:	Tuesday, April 18, 2017 5:08:55 PM
Attachments:	Transition Charges draft legislation.docx

For the transition charges, this is my initial understanding based off of the latest draft legislation

- The legislation determines the attribution methodology (i.e., how much each customer pays) for recovering the transition charges through the fair allocation plan, as well as the actual transition charges.
- The OEB determines the allocation factor which is based on the legislation.
- The LDCs estimate the regulatory assetS (consisting of the deferred charges) during the beginning of the period and remit this information to OEB.
- There is a true-up clause that allows for any differences between actual and estimate costs to be recovered from (or returned to) ratepayers.
- The legislation is attempting to have the OPG Trust mechanism excluding from OPG's rate regulation and any rate setting process except for any operating fees that me be received by OPG (i.e., any actual profits earned in excess of the cost of financing).

Thus, my view is that OEB is acting more of an enforcer of the legislation and rates rather than setting them. The finer points have been included in the word file attached.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

Key parts from legislation for Transition Charges

(3) Calculation and Attribution of Transition Charges – Not later than 25 days prior to the first day of a Reference Period, the OEB shall apply the Attribution Methodology to determine the allocation of the Transition Charge for each Regulated Consumer. [NTD: We think the OEB would be determining the Fair Hydro recovery rate (on a volumetric basis) that distributors would then be required to charge to consumers]

Article 9

(2) Principles and Parameters of the Financing Plan – The Financing Plan shall establish the basis for each Absolute Assignee's funding decisions having regard to the principles and parameters set forth in Schedule 3.

(3) OEB Approval – Any Additional Funding Charge payable to the Financial Services Manager in respect of services provided by the Financial Services Manager (other than third party costs) shall be subject to review and approval by the OEB.

(7) **Non-Recourse** – The Financing Plan shall be implemented so that Funding Obligations incurred shall be without recourse to or to any assets of the Electricity Distributors, IESO, any Alternative Servicer, any Alternative Collection Agent, the Financial Services Manager, the OEB or Her Majesty in right of Ontario, other than if and to the extent that such persons or entities are liable for the performance of obligations or duties arising under this Act or expressly agree to become liable pursuant to any Funding Obligation or obligation in relation to a Finance Amount.

Article 10 - As noted above, the outcome of any regulatory action undertaken by the OEB will not affect Funding Obligations that have been incurred under the Financing Plan. This Article and any potential role for the Auditor General is still under consideration.

(1) [OPG's Rate Settings – When setting other rates for or in respect of OPG, the OEB shall not take into account (a) the administrative or servicing fees charged by OPG as Financial Services Manager [in excess of the actual incremental costs incurred by such person of providing administrative or servicing services]; (b) the cost consequences to OPG of being the Financial Services Manager; or (c) the consequence of OPG consolidating the assets and liabilities of any Financing Entity for OPG's accounting purposes, in each case in setting any regulated payment amounts for OPG.][1]

"Funding Obligation" means, in respect of an Absolute Assignee, each payment obligation (including, without limitation, each obligation to pay: principal, interest, premiums and other financing charge payments; pass-through payments; payment obligations arising under or in respect of derivatives; payment obligations owing to service providers, Financial Services Managers, finance entity intermediaries, capital markets intermediaries, advisors, lenders, credit enhancement providers, liquidity providers, disbursement counterparties, regulatory agencies and rating agencies; and all Additional Funding Charges) incurred by or on behalf of the Absolute Assignee under the Financing Plan, including any Refinancing of another such payment obligation incurred by or on behalf of such Absolute Assignee.

"Transition Charge" means, the amount recoverable from a Regulated Consumer in respect of a Reference Period, being the Period Finance Charge as allocated to such Regulated Consumer in accordance with

[1] As an alternative to this provision, consider clarifying under s. 78.1(4) of the OEB Act (which currently gives the OEB discretion in setting payment amounts subject to O. Reg. 53/05) that the OEB in setting OPG payment amounts for prescribed generation shall not consider OPG's role as Financial Services Manager of any Financing Entities associated with the Fair Hydro initiative, perhaps with the exception of any operating fees that may be received by OPG for performing that role.

Article 4(3) on a monthly basis. **[NTD: This needs to be grossed up to account for variability associated with expected uncollectables and remittance delays.]** **[NTD: Do not need to create parallel process. The definition should be linked to the OEB process for determining the volumetric rate as part of the RPP process (see s. 4(2)). The OEB will determine volumetric rate based on forecast consumption, number of consumers, etc. to recover the Period Finance Charges.]**

From:	Gavin He
To:	Francisco Chinchon; John Kim; Mara Bakic; Emily Kerr
Subject:	MO Bi-weekly Agenda
Date:	Tuesday, March 28, 2017 5:49:35 PM
Attachments:	Annotated Agenda MO Mar 20 2017_CEFD_v2.docx

Hi all,

The next MO bi-weekly meeting will be on Monday, April 3rd, 2017. To prepare for the meeting, could you please provide me with your annotated agenda by **EOD Thursday, March 30th, 2017** for Ron to review?

I have attached the previous agenda for your reference.

Please let me know if you have any questions.

Thanks,
Gavin He

ANNOTATED AGENDA
MO UPDATE: March 20, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Trillium Trust:

Ministry of Finance / TBS are finalizing changes to the Ministry's PRRT submission for the Trillium Trust that would set the level of the appropriations for projected funding for infrastructure to come from the Trillium Trust in 2017-18.

- There has been a change in the projected amount since the MOF PRRT submission was originally drafted. The change relates to the GO RER project.
- MOF / TBS are now proposing to fund $60 M of GO RER costs through the Trillium Trust, which would mean projected total Trillium Trust drawdowns for 2017-18 of about $400 M.
    - The project is currently tracking to receive contributions from the Trillium Trust, the federal government, Green Bonds, and the Greenhouse Gas Reduction Account (GGRA).
    - Contributions from the federal government, GGRA, and Green Bonds are inflexible, which leaves the Trillium Trust as the vehicle for reduced funding towards GO RER.
    - That would altogether exceed its forecast expenditure.

2. Ontario Fair Hydro Plan – Equity Injection:

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG held a teleconference to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff will be to establish clarity and steps required on the Provincial approvals for the equity injection; however, additional questions were raised during the discussion:
    - How/What the approval process will be for OPG, OFA, TBS, and Province?
    - What would be the source of interim financing if there are time lags?
    - OPG commented that interim financing might be required for OPG Trust, particularly for the portion of the GA to be funded through capital markets.
    - Would likely need a multi-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
    - Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.

3. Hydro One – Financial Benefit to OEFC (s. 50.3 of the Electricity Act):

Ministry of Finance is drafting a Treasury Board submission for April to provide a financial benefit to the Ontario Electricity Financial Corporation (OEFC) in accordance with s. 50.3 of the Electricity Act.

- Under the Electricity Act, the Ministry of Finance is to provide OEFC with a financial benefit when the Province sells Hydro One shares.
- The financial benefit is being paid as a result of the secondary offering of Hydro One shares.
- The payment is fiscally neutral as the expense to the Ministry of Finance is fully offset against the receipt of revenue of OEFC on consolidation of OEFC in the Public Accounts.
- The benefit would accrue to OEFC in 2016-17 but would be administered in 2017-18 by remitting debt owed by OEFC to the Province.

4. Global Adjustment Lawsuit Follow-ups

- OEFC has determined adjustments for the years prior to 2016 for Standstill NUGs.
    - There are several NUGs not involved in the lawsuit which have PPAs that contain similar terms and price provisions as those that were under consideration by the courts. These NUGs entered into Standstill Agreements with OEFC (Standstill NUGs).
    - As OEFC's application for leave to appeal was unsuccessful, OEFC would also have to make retroactive payments to Standstill NUGs.
    - As all Standstill NUGs have either expired or been terminated early, no additional go-forward payment adjustments would be required.

- OEFC had already made retroactive payments to Standstill NUGs for 2016 through the normal rate adjustment process under the contracts.
    - *OEFC will only be making retroactive payments to standstill NUGs for generation which occurred within the two year limitations period.*
    - NUGs may hold the view that they should be given retroactive payments for the period beyond two years.

- As OEFC recovers the full cost of contracts through the Global Adjustment, including legal costs, there is no impact expected on the stranded debt. This recovery is done through the monthly settlement process of the IESO.

5. ALGP: Coral Rapids Conditional Offer Package

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), is seeking a loan guarantee under the ALGP. This loan would allow CRP to finance its investment in a partnership which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station at a lower interest rate than the alternative (a loan from its partner).

- The conditional offer letter was approved and an OIC was obtained at the December 13, 2016 LRC meeting.
    - This application involves the interests of a Schedule 1 bank.

- Due diligence and legal/loan documents are close to being finalized, with the expectation being the briefing package will be sent to DMO early in the week of March 20. Closing is ideally targeted the same week, so the timeline is tight and assistance coordinating with TBS is appreciated. Staff request an approval to meet the closing date and execute the final loan guarantee agreement. Staff are available for a briefing if requested.

6. OEFC Lending to IESO

- The OEFC provides IESO two current credit agreements:
    (1) Loan Agreement, originally dated April 1, 1999; and
    (2) Revolving Line of Credit ("Revolving Credit") Agreement originally dated April 23, 2010.

- The IESO has requested that the OEFC provide up to four-year extensions [TBD] and increases to the credit agreements:

- The current Agreements are set to expire on April 30, 2017.
    - The OEFC would seek Directives from the Minister of Finance to extend the loan and credit facility. The Directives would be required before April 10, 2017 so that the OEFC and IESO can proceed to finalize and execute the respective agreements.

- A detailed briefing package is under development and will be provided shortly.

OTHER ISSUES

1. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.

2. College Class Exemption

- Proposed regulation as well as terms and conditions for the draft Binding Policy Directive for Colleges has been drafted and is currently being reviewed by college sector reps.

- MAESD and OFA currently reviewing the s.28 approval process including timing and information requirements with a view to further streamlining the process.

3. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.

- A formal request from the Minister of Transportation to the Minister of Finance is forthcoming.

From: Gavin He
To: Francisco Chinchon; John Kim; Mara Bakic; Emily Kerr
Subject: MO Bi-weekly Agenda
Date: Tuesday, April 11, 2017 10:56:17 AM
Attachments: Annotated Agenda MO April 3 2017_CEFD.docx

Hi all,

The next MO bi-weekly meeting will be on Monday, April 17th, 2017. To prepare for the meeting, could you please provide me with your annotated agenda by **EOD Thursday, April 13th, 2017** for Ron to review?

I have attached the previous agenda for your reference.

Please let me know if you have any questions.

Thanks,
Gavin He

ANNOTATED AGENDA
MO UPDATE: April 3, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. OPG Head Office building sale

On April 4 MOF will be reporting back to TB on the expected results of the sale process prior to closing of the transaction. The TB Minute, if approved, is proposed to be fast-tracked for Cabinet ratification on April 5th.

- On January 9, 2017, OPG announced it had reached an agreement to sell the properties to KingSett Canadian Real Estate Income Fund LP.
- OPG's 2016 Financial Statements indicate that the transaction is expected to close in the second quarter of calendar 2017 (early April) and that, pursuant to the 2015 Shareholder Declaration and Resolution, OPG will be required to transfer the net, after-tax gain to the Province to credit the Trillium Trust.
- OFA staff have begun assessing preliminary information provided by OPG to determine the amount that would be eligible to credit the Trillium Trust.
- OPG's rate 2016/17 rate application submission is currently being assessed by the Ontario Energy Board (OEB) including an ongoing oral hearing.
- It is possible that any public communication with respect to the sale raises questions among intervenors and the OEB on if ratepayers should benefit in any way from this transaction.

2. Hydro One – Financial Benefit to OEFC (s. 50.3 of the *Electricity Act, 1998*)

Ministry of Finance is drafting a Treasury Board submission for the May 9 Treasury Board meeting to provide a financial benefit to the Ontario Electricity Financial Corporation (OEFC) in accordance with s. 50.3 of the *Electricity Act, 1998*. The submission will require the Minister's signed approval by April 18.

- Under the *Electricity Act*, the Ministry of Finance is to provide OEFC with a financial benefit when the Province sells Hydro One shares.
- This financial benefit is being paid as a result of the secondary offering of Hydro One shares in April 2016.
- The payment is fiscally neutral as the expense to the Ministry of Finance is fully offset against the receipt of revenue of OEFC on consolidation of OEFC in the Public Accounts.
- The benefit would accrue to OEFC in 2016-17 but would be administered in 2017-18 by remitting debt owed by OEFC to the Province.

3. Hydro One – Financial Benefit to OEFC (s. 91.2 of the *Electricity Act, 1998*)

The Ministry of Finance is drafting a Treasury Board submission requesting a fiscally-neutral Ministry of Finance increase in 2016-17 to the statutory appropriation "Hydro One Inc., Provincial Corporate Tax Provision, the *Electricity Act, 1998*".

- As per section 91.2 of the *Electricity Act, 1998*, the Minister of Finance is to pay the OEFC an amount equal to tax payable under the *Taxation Act, 2007* (i.e., the provincial corporate income tax -- CIT) by HOI and its subsidiaries, to continue to help service and pay down the electricity sector stranded debt.
- The payment is fiscally neutral as the expense is fully offset against the receipt of revenue of OEFC on consolidation in Public Accounts.

4. Hydro One – Paydown of Debt

The Province has now paid to OEFC the proceeds related to the book value of shares sold in the April 2016 secondary offering.

- The book value of proceeds, totalling about $1.3 billion, have been paid to OEFC to pay down the Province's debt and other payables with OEFC.
- This payment is part of the government's commitment to using proceeds from broadening Hydro One ownership to pay down a targeted $5 billion in debt.
- This follows from the Province's payment to OEFC earlier in 2016-17 of about $1.1 billion in proceeds related to the book value of shares sold in November 2015.
- These amounts are also in addition to the $800 million special dividend received by the Province prior to the Hydro One IPO that was used to pay down debt and other payables with OEFC in 2015-16.

5. Ontario Fair Hydro Plan – Equity Injection

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG continue to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff are working to establish clarity and steps required on the Provincial approvals for the equity injection; however, additional questions were raised during the discussion.

6. Ontario Northland Transportation Commission – Request for Line of Credit

On March 13, 2017, the OFA was contacted by the Ministry of Northern Development and Mines (MNDM) with a request to discuss re-establishing a line of credit for ONTC.

- This request appears to be driven, at least in part, by the depletion of a self-insurance reserve fund for to train derailments. ONTC had been using this fund for working capital management, and without that money is facing pressure in financing its normal operations.

- ONTC is also going to Treasury Board in the next few months for a mandate review and approval of its three-year business plan. OFA staff conveyed to MNDM staff that approval for a line of credit would need to be provided alongside or after TB has approved these items.

7. ALGP: Coral Rapids Conditional Offer Package

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), is seeking a loan guarantee under the ALGP. This loan would allow CRP to finance its investment in a partnership which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station at a lower interest rate than the alternative (a loan from its partner).
- The conditional offer letter was approved and an OIC was obtained at the December 13, 2016 LRC meeting.
    - This application involves the interests of a Schedule 1 bank.

- The briefing package was sent to DMO the week of March 20 with an update the week of March 27 to address a proposed revision in the pledge agreement. Approval of this revision as soon as possible would allow for legal documentation to be finalized.
    - Sign off for execution of the loan guarantee within the next few business days would be ideal to ensure sufficient time for conditions precedent to be satisfied. Financial close is planned for April 10 so that the borrower can meet its equity contribution deadline.
    - If staff can facilitate an earlier closing it would likely be appreciated by the borrower. Staff are available for a briefing, if requested.

8. Global Adjustment Lawsuit Follow-ups

- Energy DM will likely make a request to OEFC that the costs to be recovered through the GA relating to the Standstill NUGs be recovered over three months to spread out costs for customers.

OTHER ISSUES

9. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.
- Proposed amendments to FAA s.28 have been drafted to:
    (i) give the Minister of Finance or the President of Treasury Board the authority to prescribe in regulation public entities or classes of public entities that would be subject to s. 28; and

(ii) give the LGIC the authority to make regulations to define terms used in section 28 that are not already defined in the Act.

10. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.
- A formal request from the Minister of Transportation to the Minister of Finance is forthcoming.

11. FSCO – Stelco Pension Issue

- As part of a transaction that will allow Stelco to come out of bankruptcy, the parent of Stelco, US Steel, has proposed a sale to Bedrock Industries. This sale limits Bedrock's exposure to the pension plan liabilities.
- The Superintendent of FSCO will temporarily be the nominal administrator of Stelco's 5 pension plans and will be responsible for the related 46 administrative contracts. As the Superintendent is also the regulator, he will subcontract this responsibility in a sole source contract to an administrator.
- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From:	John Psinas
To:	Nadine Petsche (MOF)
Cc:	Bharat Patel (MOF); Francisco Chinchon; John Kim; Bruno Amara; George Sakura; Kevin Hwang; Ken Kandeepan; Carlos Yep
Subject:	MOF - Energy compromise
Date:	Tuesday, April 18, 2017 4:24:29 PM

Nadine,

Regarding the equity injection, it is my understanding, based on what happened with Hydro 1, that MOF and Energy eventually compromised. MOF will keep the historical $5 + $3 B on their books for OPG and H1 Investment in GBE, but for new Hydro 1 issues, the equity will be on Energy's books. In terms of the equity injection GA issue, will the shares received from OPG be on Energy's books, as that constitutes new issues similar to the H1 compromise? This has important connotations given that someone has to go to Treasury Board and ask for an operating asset in the next couple of weeks to be set up and someone has to track for the next 15 years the number of shares received from OPG.

Can OPCD confirm that Energy will have these new issues on their books?

Thanks.

John

From: Bruno Amara
To: John Kim
Subject: MOF Legal
Date: Friday, March 31, 2017 9:31:45 AM

Hi John

I just got a call from MOF Legal (Toby Whitfield – works for Malle Hanslep). They have been contacted by OFA (Opal Kandelas, Kelly Listoe) about engaging a financial advisor for the Province on the Equity injection. MoF legal is looking for more background and context. My plan will be to get them a draft today of the meeting note we are pulling together. I will also contact Carlos to see if he has more context around the request. It sounds like a different issue from the plan to get advice from a dealer on the borrowing structure for the IOPG Trust that was discussed.

Let me know if this sounds OK.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: Bruno Amara
To: John Kim
Subject: Not urgent - Fwd: Fair Hydro Plan
Date: Saturday, March 18, 2017 4:53:15 PM

Sent from my iPhone

Begin forwarded message:

From: "Fung, Felix (TBS)" <Felix.Fung@ontario.ca>
Date: March 18, 2017 at 1:32:33 PM EDT
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Thanks Bruno, we can certainly chat more about that. Energy is required to report back to TB/MBC in Spring 2017 on an approach to refinance Global Adjustment – so the way I see it is any TB/MBC approval that's needed for the operating asset (and whatever requirements that are needed to implement GA), be approved at that time. Having said that, I don't know if Energy has reached out to the OFA to discuss the various requirements that are needed for the GA. I'm not as close to this aspect of the file as my OPCD colleagues are, but happy to sit down with everyone to talk about any support we can provide to Energy.

Thanks,
Felix

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March-17-17 10:25 AM
To: Fung, Felix (TBS)
Subject: RE: Fair Hydro Plan

Hi Felix

Thanks for your response. I'm not 100% sure, but we were thinking that the GA Financing, although, it does not have a fiscal impact, would require approval for the equity injection that the Province is making. I.e., it is my understanding that the Province would be purchasing and asset - OPG equity. Would this not be an operating asset expense requiring TB approval. I was speaking to colleagues who have been dealing with the Hydro One dispositions, and they noted that an operating asset approval was required for the capital contribution to Hydro Ona at the time of the IPO. I can set-up a discussion if you wish. There are folks here that may have a bit more insight than I do. Let me know.

Thanks

Bruno

From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
Sent: Friday, March 17, 2017 9:50 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi Bruno,

Happy to chat further – for the electricity support programs (e.g. OESP, RRRP, etc) – the appropriation for these programs would be through ENE and will be put through as part of our wrap up / Document process. However, ENE will need to report back in the Spring on the detailed program design for these programs.

For GA – there is no appropriation required, but Ministry is to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment.

Let me know if you would like to chat further.

Thanks,
Felix

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March-17-17 9:36 AM
To: Fung, Felix (TBS)
Subject: Fair Hydro Plan

Hi Felix

I'm trying to follow the various aspects of mplementation of the Fair Hydro Plan and who is doing what. I have a few initial questions with respect to the appropriations side of the implementation of the Plan, in particular, the refinancing the GA.

Is your team now engaged with that now that pre-announcement work is done?
I assume appropriation would be through ENE of would it be MoF?
Are there timelines for when this would go to TB?

Thanks, your help is appreciated.
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

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From:	Bruno Amara
To:	Ronald Kwan
Cc:	Gavin He; John Kim
Subject:	OEP Request - Fair Hydro Plan Details for impact analysis
Date:	Thursday, March 16, 2017 11:58:58 AM
Attachments:	BN - Ontario Fair Hydro Plan Impacts v2.docx

Hi Ron

We had a preliminary discussion with OEP on information they would require for their impact analysis and have pulled together the attached. This provides some background information on programs and also some of the quantitative information. The quantitative information, in particular, is from Energy's cab sub. We include a paragraph reminding OEP to consider the government's commitment to balance in estimating economic. We agreed with OEP that this process might be iterative.

Can you advise on whether we should first run this by Energy with the context of the request. And any comments on the attached are welcome.

Thanks
Bruno

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

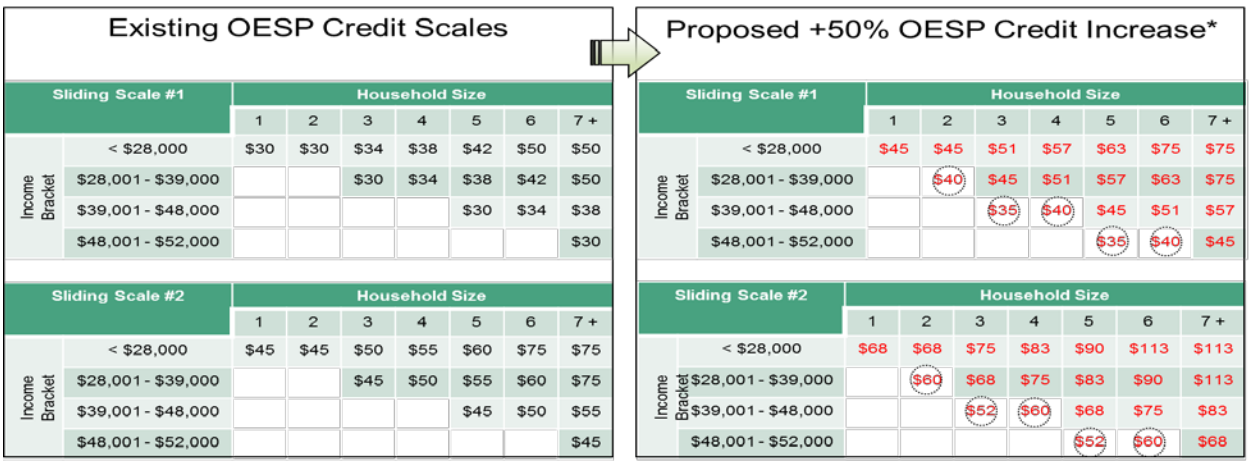
FAIR HYDRO PLAN

Customers / Residential

- **Global Adjustment Smoothing:** Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs.
- The GA accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan the long-term benefit of these assets to the electricity system is recognized and some of current costs are deferring to the future. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact, by in effect. However, there will be an impact on provincial debt over time as various parties including the Province, will need to incur debt to cover current GA costs.

Please see last page for the Annual Debt Schedule.

- **OREC:** All residential consumers received an 8% rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).
- **OESP Expansion:** Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.



Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

- **RRRP Expansion:** Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.
- **First Nations On-Reserve Delivery Credit:** Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

    Staff Comments:
    - Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.
- **Establishing a New Affordability Fund:** Assist electricity customers who need financial assistance to undertake energy efficiency improvements.

    Staff Comments:
    - This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
    - Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

Industry

- **Expand the Industrial Conservation Initiative:** Enhance competitiveness for small manufacturers and industrials. Reduce ICI eligibility to those with monthly peaks of 500 kilowatts, down from the current threshold of 1 megawatt.
    - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

Other

- **Improving Electricity Sector Efficiencies:** IESO's Market Renewal Initiatives are estimated to save the electricity sector (as a total) $200 million per year starting in 2021.

FISCAL COSTS

- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., The costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

- **Fiscal Costs of the RRRP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 14, 2017

From: Bruno Amara
To: John Kim
Subject: OEP impact analysis
Date: Thursday, March 23, 2017 11:58:28 AM
Attachments: Ontario Fair Hydro Plan Impacts_to OEP_v2.docx

Hi John

OEP has some follow-up requests for their impact analysis exercise. The answer would, for the most part, need to come from ENE. Below is a draft email to Tim Christie (ENE). Let me know if you have any comments. Also let me know whom you prefer it to be sent by i.e, you, Dir. to Dir., or me, or EA to EA etc. As you may recall Ron had OK'd the initial sharing of information and noted that we could offer to facilitate discussions with ENE.

Thanks
Bruno

Hi..

We were contacted in early March by the Office of Economic Policy, MoF who are undertaking an economic impact analysis of the Ontario Fair Hydro Plan. At the time, we provided them with the attached information (ENE password). The data is sourced from the ENE cabinet submission. OEP has responded asking if some additional information is available. These are mainly with respect to the "Bill Forecasts" table as follows:

Would it be possible to provide the "Bill Forecasts – Calendar Electricity Prices" table out to 2040? In particular the Total Bill line prior to the announced changes and impact of Tax Based Social Programs?

Similarly would we be able to provide a long-term electricity price forecast for the large industrial segment pre-changes?

OEP had also asked whether the "impact of tax-basing social programs" on the table were all reductions on electricity bills rather than off-bill cash transfers. We assume the answer is Yes. But we're not sure if the Affordability Fund would be reflected in those numbers. Based on the cabinet submission we assume the later would be off-bill assistance for energy efficiency measures.

Please let us know how you wish to respond. We can provide the appropriate contacts if you wish to respond directly to OEP.

Thanks
Bruno Amara

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

The material provided below if sourced largely from the Ministry of Energy's cabinet submission.

FAIR HYDRO PLAN

Customers / Residential

OREC:

- All residential consumers received an "8%" rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).

Global Adjustment Smoothing:

- Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs. The RPP also includes farms and low volume customers (up to 50 kW demand or 250,000 kilowatt-hours annually).
- The GA accounts for the difference between contracted and regulated prices paid to generators compared to the hourly market clearing price, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to be able to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA, while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan, the long-term benefit of these assets to the electricity system is recognized and some of the costs recovered in current rates would be deferred for recovery in future rates. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to eligible ratepayers would be lowered in the short term, reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by an estimated $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact. However, there will be an impact on provincial gross debt over time as various parties including the Province, will need to incur debt to finance the deferral of a portion of current GA costs.

Please see last page for Energy's estimated Annual Debt Schedule.

OESP Expansion:

- Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

RRRP Expansion:

- Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

First Nations On-Reserve Delivery Credit:

- Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

Staff Comments:

- Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.

Establishing a New Affordability Fund:

- Assist electricity customers who need financial assistance to undertake energy efficiency improvements. TB Approved $100 million for 2016-17 (not public).

Staff Comments:

- This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
- Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

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    - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

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- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., the costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

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Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
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Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	**-**	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:** Existing OESP credit amounts assume ramp-up of take-up rates for the application-based program.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
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On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

NOTE: As mentioned above for Affordability Fund, TB Approved $100 million for 2016-17 (not public).

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
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8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 16, 2017

From:	Strang, James (TBS)
To:	John Kim; Judy George-Harris (MGS)
Cc:	Chris Skubel (MGS); Laurie Morin (MGS)
Subject:	OPG Business Plan BN - Review and Input Needed
Date:	Monday, May 01, 2017 4:23:56 PM
Attachments:	5 2017-05-09 RAN OPG Business Plan v1.doc OPG Business Plan - Signed Submission.msg

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John,

Attached is the note for the OPG Business Plan item going to TB/MBC same time as OFHP May 9, 2017. Please review and provide comments, and clarification regarding what's in the OPG #s in the 2017 Budget numbers (There are references in the note and the tables on the last two pages need updating to be complete).

Sec Briefing is tomorrow afternoon, would it be possible to get the updated tables in the morning tomorrow? Fair Hydro Plan is also scheduled, but not sure if it or both will be bumped to a separate briefing cycle in advance of May 9, 2017.

Laurie (for Judy) – I've included a description of the international travel aspect (around slide 11, deck in the attached email) and a placeholder for a minute (Judy was aware of the item).

James

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	May 9, 2017
Agenda Class:	Discussion (In Camera)
Last reviewed by: TB/MBC March 24, 2015	**Tracking to: Fast Track** Cabinet (May 10, 2017)

SUBMISSION TITLE:	2017-2019 Business Plan for Ontario Power Generation

Prepared based on draft submission

I. DECISION BEFORE THE BOARD

- Receive Ontario Power Generation's (OPG) 2017-2019 Business Plan

II. RECOMMENDATIONS:

• Receive the 2016-2018 business plan for Ontario Power Generation	*Receive*
• Note Minister of Energy will provide concurrence with OPG's Business Plan	*Note*
• Approval giving special status to OPG under Section 5.3 of the MBC Travel, Meal and Hospitality Expenses Directive, giving it the authority to approve international travel for its employees.	*tbd*

III. FINANCIAL SUMMARY

$ Millions	**2014-15**	**2015-16**	**2016-17**
Initiative cost requested	0.0	0.0	0.0
Initiative cost recommended	0.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended (Specify Ministry/Program)	0.0	0.0	0.0
Total Fiscal Impact	0.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

As stipulated as part of the 2013-14 Results-based Planning process, the Ministry of Energy is submitting OPG's annual business plans for review by Treasury Board to facilitate incorporating implications into the Province's fiscal plan.

It is under the responsibility of the Minister of Energy on whether or not to provide the Minister's concurrence of OPG's annual multi-year business plan. The Treasury Board submission provides the Minister of Energy with an opportunity to highlight why concurrence is being given and any conditions placed on it. Appendix C provides more information on the concurrence process and the 2013-14 minute.

Under the memorandum of agreement (MOA, July 2015) between the Province (as sole shareholder and the Ministry of Energy as representative of the shareholder) and OPG, the company is required to annually submit its board-approved multi-year business plan to the Minister of Energy for concurrence. The concurrence letter from the Minister to the company will note key elements of the business plan,

how these elements relate to the policy direction and priorities of the Province, and the government's expectation for the performance of the company including indicating any elements of the business plan the government does not concur.

In November 2016, OPG submitted its 2017-2019 Business Plan (Board-approved?) to the Ministry.

Ontario's Fair Hydro Plan (OFHP) is not reflected in OPG's latest Business Plan. The Ministry notes the following OFHP implications for OPG:

- As part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would purchase the right to future cash flows from IESO, financed by capital infusions from the Province (Equity injection via an operating asset, raised from higher debt, with additional shares to the Province as sole shareholder), and by third-party lending (check with OFA – currently 256.3M common shares increasing to….needed? Perhaps explain why there are shares given province is sole shareholder, linked to value of OPG assets/equity)
  - These changes are expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income
  - In addition, the Province's net debt position should remain unchanged (Check is OFA)

Financial figures from the OPG Business Plan are included and supplemented with forecast changes for the Ontario Financing Authriy, MOF for OFHP implications as part of Province's finalized fiscal plan for the 2017 Budget. The Ministry of Energy indicates it is generally supportive of the fiscal, financial and operational strategies laid out in the business plan.

The earnings before tax (net income and income tax payments in lieu – PILs) of OPG are consolidated on the Province's financial statements and have one-for-one impact on the Province's surplus/deficit position, excluding adjustments that the Province may make upon consolidation of OPG's financials (e.g., unrealized gains or losses). OPG is expected to submit its next multi-year business plan later this year for the period starting January 1, 2017.

Overview of Current Business Plan

OPG's 2017-19 Business Plan details key company undertakings such as business transformation and nuclear refurbishment that will have a substantial electricity system benefit, ratepayer and shareholder impacts. These items were flagged in the previous year's multi-year business plan as well.

- Key Income Statement Forecasts:
  - The figures in the OPG Board approved 2017-2019 Business Plan, along with OFA forecast updates for OFHP (TBC), show a decrease in earnings before tax of $84M in 2017-18 and $89M in 2017-18, followed by increases of $59M in 2018-19 and $120M in 2019-20 over the estimates in the 2016 Budget..

    OPG is forecasting net income attributable to the Shareholder to reach $1B in 2021, from $436M in 2016. Net income in 2017 is forecast to increase as a result of new regulated rates, a gain on sale of OPG's head office, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations

    Net income in 2018 and 2019 is planned to increase, primarily due to higher production, and earnings from oncoming stations including Nanticoke solar in 2019. Return-on-equity (ROE) is estimated to increase from 4.2% in 2016 to 7.3% by 2021.

    In early January 2017, subsequent to the OPG Board's approval of the 2017-2019 Business Plan, OPG reached an agreement with KingSett Canadian Real Estate Income Fund LP for the purchase of OPG's head office property. The net gain is estimated to be

$285M and will be distributed to the Trillium Trust.

These estimates are highly dependent on electricity and financial market conditions, regulatory decisions by the Ontario Energy Board (OEB), potential changes to accounting standards or the basis of consolidation in Public Accounts, operational performance, and/or government policy, which can change materially. The first table in Appendix G shows the changes to Province's fiscal plan.

- Annual Operations, Maintenance & Administration (OM&A) expenses from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year.
- The cost of OPG generated electricity to customers is projected to remain ~40% below the average non-OPG cost of electricity to 2018, and over ~30% by 2021. Note: OPG provides predominantly, lower-cost baseload generating capability, rather than more expensive peaking generating capability.
- Headcount Efficiencies – Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3.

  OPG continues ramping up recruitment in 2017 to fill key vacancies in certain areas (particularly in the nuclear business unit) due to high levels of attrition, as well as continued Pickering operations beyond 2020. OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021.

  OPG has hired ~95 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015. OPG intends to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations.

- Key Projects:
  - The plan assumes ongoing operations at Pickering for about four years beyond 2020, and as approved by Cabinet, the execution of the Darlington refurbishment consistent with approved budget of $12.8 billion (including escalation and interest), is now under way. First unit refurbishment began in October 2016, Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, assuming necessary concurrence from the Province is obtained.
  - Sustaining capital expenditures average $570M per year include nuclear expenditures unrelated to Darlington refurbishment and costs for continued operation of Pickering (e.g., Upgrades at Sir Adam Beck and upgrades to DeCewII, and investments in current and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility).
- Rate Application to the OEB:
  - OPG's 2017-19 Business Plan is dependent on the outcome of its rate filing with the OEB for the five-year period from 2017-2021. Oral hearings began February 2017, decision expected in Q3 2017.
    - OPG 2017-2019 BP assumes new rates effective January 1, 2017. The OEB setting a later effective date would negatively impact OPG's 2017-18 fiscal year net income by ~$50-60M per month of delay.
  - On March 2, 2017 the Province filed an amendment to O.Reg.53/05, which enables OPG to smooth its rates based on OPG's total bill impact, rather than on the basis of nuclear

rates only.

- On March 8, 2017 OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year

- OPG Request – Special Stats for OPG to Approve International Travel (Appendix F provides more information):
  - OPG has placed a request with the Ministry for authority to approve international travel for its employees. OPG has asked that this application be included with its BP submission to TB/MBC.
    - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business.
    - OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for its pension fund and nuclear funds.
    - OPG requires a high level of international business travel at approximately 90-100 trips annually, while Darlington accounts for 45% and is expected see increases.
    - OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date.

Other Key Fiscal Risks:

Regulatory risks: Potential disallowance of recovery of OPG's current or future deferral and variance account balances (including for the proposed nuclear rate smoothing), future treatment of pension costs.

Accounting risks: Any change in the basis of accounting used for consolidation of OPG on the Province's financial statements could result in potentially significant fiscal impacts.

Financing Costs: Higher cost public capital market borrowing (vs the Province's borrowing cost for OEFC to lend to OPG) would have a negative fiscal impact.

Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	May 1, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEM, TBS		

APPENDIX A: PROPOSED MINUTE (UNDER DEVELOPMENT)

Note receipt of a Business Plan for Ontario Power Generation.

In this regard,

i.) Note the Minister of Energy will provide Ontario Power Generation (OPG) with a concurrence letter for its Business Plan.

ii.) …..request for special status…international travel

iii.) Direct the Ministry, in consultation with the Ministry of Finance / Ontario Financing Authority, to report back to the Board in early January each year with the approved or latest draft business plans for Ontario Power Generation for fiscal planning purposes.

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
		Fiscal Plan Basis			*Appropriations Basis*
$ Millions		**2014-15**	**2015-16**	**2016-17**	**2014-15**
Initiative cost recommended		0.0000	0.0000	0.0000	
Expense changes:					
Operating item	Oper	0.0000	0.0000	0.0000	0.0000
Capital item	Cap	0.0000	0.0000	0.0000	00000
Revenue changes:					
Revenue increase/offset		0.0000	0.0000	0.0000	
Revenue decrease		0.0000	0.0000	0.0000	
Total Fiscal Impact (draw from c-funds)		**0.0000**	**0.0000**	**0.0000**	**0.0000**

APPENDIX C: CONCURRENCE OVERVIEW

Under agreements between the Province (as sole shareholder) and OPG, the company is required to annually submit its multi-year business plan to the Minister of Energy for concurrence. Review of the business plan by Treasury Board prior to concurrence was stipulated as part of the 2013-14 Results-based Planning process (see below).

Concurrence is typically provided to OPG via a letter from the Minister of Energy. The letter will note key elements of the business plan, how these elements relate to the policy direction and priorities of the Province, and the government's expectation for the performance of the company. The letter may also indicate any elements of the business plan of which the government does not concur and/or provide additional guidance on expectations going forward.

The current submission looks at the multi-year business plan for OPG covering 2016-2018. Concurrence with the plan is still pending.

Below is the 2013-14 Results-based Plan Minute:

Directed the Ministry of Energy and its agencies, Ontario Power Generation Inc. and Hydro One Inc., in consultation with the Ontario Financing Authority, to report back:

- Annually each autumn with the respective multi-year business plans of the agencies as approved by the Boards of the companies, for review by Treasury Board/Management Board of Cabinet.
  - In this regard, the report should include the following, on a calendar and government fiscal year basis:
  - Multi-year financial and operational targets, including net income and earnings-before-tax.
  - Projected revenues and cash flows to the Province, including the Ontario Electricity Financial Corporation.
  - Planned financings from the Ontario Electricity Financial Corporation.
- Quarterly with financial projection updates and progress reports on the agencies' respective business plan targets and any other new developments, initiatives or risks that may have a material fiscal impact on the Province including variance analysis of last quarter and year-to-date against the annual business plan reviewed by Treasury Board/Management Board of Cabinet.

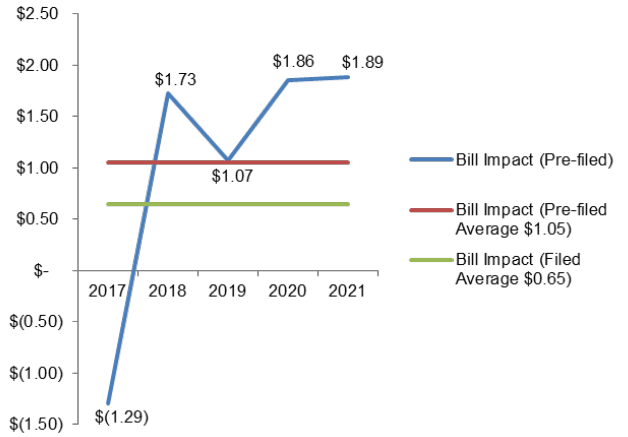
APPENDIX D: SUMMARY OF KEY HIGHLIGHTS FROM OPG BUSINESS PLAN

The Ministry indicates OPG financial and ratepayer forecasts show some changes from last year's business plan projections, as reviewed by Treasury Board in September 2016.

This is in part because 2017 net income is forecast to increase as a result of new regulated rates, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations.

Also, actions taken by the Province and OPG in early 2017 to enable OPG to smooth its rates based on OPG's weighted average hydroelectric and nuclear all-in rates (which approximates total bill impact), rather than on the basis of nuclear base rates only. OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average year-over-year annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year.

Comparison of Annual Bill Impact ($/Month per year)



Production and Total Cost of Generation

OPG's production is expected to fall to 69.8 TWh by 2021 from 77.6 TWh in 2016. This reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016 and overlaps between unit refurbishments, as well as, the Pickering Vacuum Building Outage (VBO) in 2021 requiring the shutdown of all units for the duration of the outage.

Total generating cost shows an increasing trend over the planning period relative to 2016, reflecting Lower nuclear production due to Darlington refurbishment outages, increased sustaining capital spending on two large hydroelectric projects (The Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation).

Operations, Maintenance and Administration (OM&A) Expenses

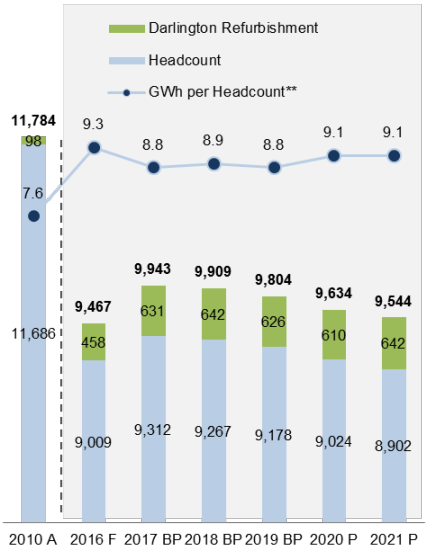
Annual OM&A expenses (excluding Darlington refurbishment OM&A) from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year. Increases related to changes in nuclear outage scope at Darlington and planned hiring to fill staffing gaps, and enabling Pickering continued operations, offset by declining pension related costs, due to projected pension asset returns, increases employee contributions, and new method for dermining interest components of pension costs.

Business Transformation and Labour Costs

As part of a company-wide business transformation, OPG saved over $1B in costs from January 2011 to December 2016:

- Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3.
- OPG continues recruitment in 2017 to fill key vacancies in certain areas (particularly in the Nuclear business unit) due to high levels of attrition, as well as continued Pickering operations beyond 2020
  - OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021
  - To date in 2017, OPG has hired ~95 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015
    - Intention is to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations, per the terms of the collective agreement

Ongoing Operations Regular Headcount and Productivity



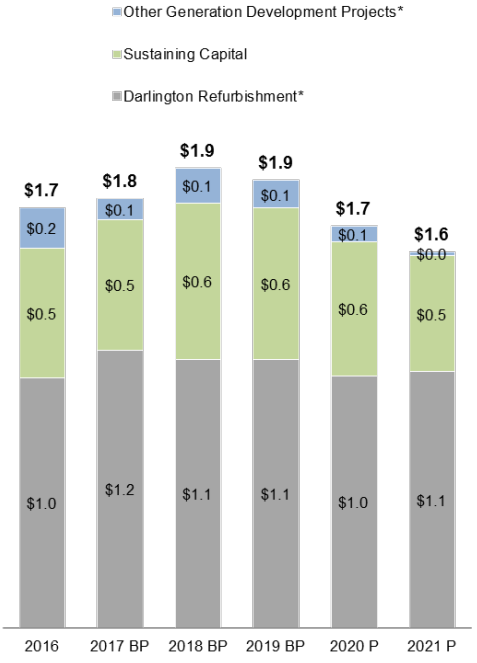
**Production is normalized by adding back hydroelectric surplus baseload generation losses and, in 2017- 2021, the lower production due to the Darlington refurbishment outages

Projects and Capital Expenditures

OPG continues delivery of major projects over the plan period, including:

- Darlington Refurbishment – Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, requiring concurrence from the Province prior to commencement
- Sustaining Capital – Expenditures average $570M, including:
  - Nuclear expenditures unrelated to refurbishment at Darlington and costs for continued operation of Pickering
  - Regulated hydro expenditures including upgrades at Sir Adam Beck and upgrades to DeCew ll
  - Lower Mattagami upgrades in 2018 and 2019
- Other Generation Development Projects – Investments in current (e.g., hydroelectric) and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility by 2019

Capital Expenditure Estimates ($B)



*Includes expenditures budgeted by Support Services

Sales

The following table summarizes sales recently completed and currently underway (as of April 2017). The fiscal plan implications of the completed OPG Head Office sale is reflected in the 2017 Budget. (TBC).

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

APPENDIX E: PROVINCIAL FISCAL PLAN IMPLICATIONS OF BUSINESS PLANS PROCEEDING – (UNDER DEVELOPMENT)

Ontario Power Generation is a Government Business Enterprises (GBE), and consolidated to the Province's financials on a modified equity basis. The Province's Fiscal Plan reflects the entity as Income from Business Enterprises and Electricity Payments-in-Lieu of Taxes (PILs) (As Revenue only).

Revenue ($millions)	**2016-17**	**2017-18**	**2018-19**	**2019-20**
2016 Ontario Budget				
Ontario Power Generation				
Net Income	471	586	673	705
Income Tax	224	159	182	108
2017-2019 OPG Business Plan				
Ontario Power Generation				
Net Income	349	702	678	726
Income Tax	111	184	154	189
2017 Ontario Budget				
Ontario Power Generation				
Net Income	387	497	732	825
Income Tax	?	?	?	?
Change in GBE Net Income (Between Budgets)				
Ontario Power Generation	(84)	(89)	59	120
Change in GBE Income Tax PILs +/(-)				
Ontario Power Generation	?	?	?	?
TOTAL OF OPG CHANGES	?	?	?	?

OPG's fiscal results are also impacted by Other PILs to the Ontario Electricity Financial Corporation (OEFC) and the Province. The following table reflects these others impacts in addition to the latest net income and income tax PILs from OPG's August update.

Table below to be updated – OFA

Revenue ($millions)	**2016-17**	**2017-18**	**2018-19**	**2019-20**
2016 Ontario Budget				
Combined Other PILs & Other GRC	342	351	359	
Other PILs (GRC to OEFC, Proxy Property Tax)	213	223	232	
Other GRC (to MOF & Niagara Parks Commission)[1]	129	128	137	
2016-18 OPG Business Plan				
Combined Other PILs & Other GRC[2]	353	358	366	
Other PILs (GRC to OEFC, Proxy Property Tax)[3]	215	220	220	
Other PILs (GRC to MOF & Niagara Parks Commission)[3]	135	140	140	
OPG Monthly Update (August 2016)				
Net Income	361	-	-	
Income Tax PILs to OEFC	98	-	-	

1. The GRC to MOF & Niagara Parks Commission (NPC) is provided to enable comparison to the 2016-18 Business Plan.
2. Include GRC to OEFC, GRC to MOF and NPC and Proxy Property Tax, provided to TBS by Energy on September 14, 2016.
3. Preliminary 2016-19 Business Plan forecast provided by Energy, January 29, 2016. (Do not add to the Combined Other PILs & Other GRC row, likely due to rounding.)

From: Gounden, Pratima (ENERGY) [Pratima.Gounden@ontario.ca]
To: James Strang (MOF) [James.Strang@ontario.ca]
CC: Felix Fung (MOF) [Felix.Fung@ontario.ca]; Judy George-Harris (MGS) [Judy.George-Harris@ontario.ca]; Chris Skubel (MGS) [Chris.Skubel@ontario.ca]
Subject: OPG Business Plan - Signed Submission
Date: Monday, May 01, 2017 11:47:56
Attachment 1: image001.jpg
Attachment 2: OPG Business Plan_signed submission.pdf

Hi James,

Attached is a copy of the signed submission for the OPG Business Plan.

We'll walk the original over to the Agenda Office this afternoon.

Thanks,

Pratima Gounden, Team Lead (A)

56 Wellesley Street West, 4th Floor, Toronto ON M7A 2E7

Blackberry: 647-289-4932

Ministry of Economic Development & Growth

Ministry of Energy

Ministry of Infrastructure
Ministry of Research, Innovation & Science

CSD
Corporate
Services
Division
Expertise | Collaboration | Respect | Service Excellence | Integrity

Ontario

Application and Report to Treasury Board/Management Board of Cabinet

(Refer to instructions on next page)

1. MINISTRY: Energy	2. MINISTRY LOG #	3. TB/MBC LOG #
4. TYPE OF REQUEST: Treasury Board General		

5. PURPOSE OF REQUEST: The Ministry of Energy is requesting TB/MBC 1. NOTE the receipt of OPG's 2017-2019 Business Plan. 2. NOTE that the Minister of Energy will provide concurrence with OPG's Business Plan 3. APPROVE OPG's application for Special Status to Approve International Travel under Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive dated January 1, 2017.

6. FINANCIAL DETAILS		($ Millions)							
		Current Year		Year 2		Year 3		Matures In	
		2016/17		2017/18		2018/19		2019/20	
		Operating	Capital	Operating	Capital	Operating	Capital	Operating	Capital
A. Program Current Base	Expense								
	Asset								
B. Program Request (change from existing base)	Expense								
	Asset								
C. Available for Offset	Expense								
	Asset								
D. Net Impact On Program Allocation (B-C)	Expense								
	Asset								
E. Revenue Implications									

7. IMPACT ON FTE LIMIT	Current Year 2016/2017	Year 2 2017/2018	Year 3 2018/2019	Mature in 2019/2020
A. Program Current Base FTE Limit				
B. Program FTEs Request				
C. Available FTE Offset				
D. Net Impact on FTE Limit (B-C)				
E. Change to Ministry Salaries & Wages Allocation (included in the Program Request ($ Millions)				

8. OTHER DECISION FACTORS	Y/N	EXPLANATION
A. Consistent with Government Priorities and Results (If Yes identify key Results) - include details in submission)	Y	MOA between Minister of Energy and OPG
B. Policy approval (if yes identify policy committee and date approved)	N	
C. Key Performance Risks (If yes provide details in submission)	N	
D. Impact on other Ministries (if yes - include sign-off date. Include resources impact in submission)	N	Ministries: N/A
E. Impact on the Fiscal Plan (if yes provide details in submission)	Y	Impact of OPG results

9. AUTHORIZATION /DATE

Signature of Minister — Date:

Glenn Thibeault

Signature of Deputy Minister — Date:

Serge Imbrogno

MINISTRY OF ENERGY

TREASURY BOARD / MANAGEMENT BOARD of CABINET SUBMISSION

ONTARIO POWER GENERATION (OPG) 2017-19 BUSINESS PLAN AND SPECIAL STATUS APPLICATION

May 2017

CONFIDENTIAL

MINISTRY OF ENERGY

ONTARIO POWER GENERATION (OPG)
2017-19 BUSINESS PLAN AND SPECIAL STATUS APPLICATION

MINISTRY REQUEST

The Ministry of ENERGY is requesting that Treasury Board/Management Board of Cabinet (TB/MBC):

1. NOTE the receipt of OPG's 2017-2019 Business Plan.
2. NOTE that the Minister of Energy will provide concurrence with OPG's Business Plan.
3. APPROVE OPG's application for Special Status to Approve International Travel under Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive dated January 1, 2017.

CONTEXT

- As required by the Memorandum of Agreement (MOA) between Ontario Power Generation and the Minister of Energy, OPG provided its Business Plan for 2017-2019 to the Ministry of Energy on November 29, 2016 for concurrence
    - Note that while OPG is seeking concurrence for its three year 2017-19 business plan, the plan also includes financial projections for 2020 and 2021
- With this Business Plan OPG is also making an application for Special Status under the Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive, which allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business
- The Minister's concurrence requires presentation of OPG's business plan before TB/MBC
- The Ministry of Energy review and analysis of OPG's business plan is supported by the Electricity Investment and Governance Secretariat, a unit within the Ministry of Finance and the Corporate and Electricity Finance Division of the Ontario Financing Authority (OFA)
- The following provides an overview of OPG's business plan, including:
    1. Business Plan Overview
    2. Other Considerations
- Proceeding with Provincial concurrence now will demonstrate that OPG has support from its shareholder as it implements the plan and provides clarity to

the Ontario Energy Board (OEB) as it reviews OPG's current rate application covering the 2017-2021 period

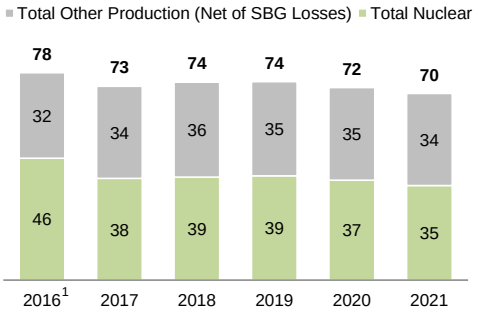
- Business plan forecasts may be affected by Ontario's Fair Hydro Plan (OFHP). Given the stage of implementation of OFHP and the timing of the receipt of the business plan in November 2016, these changes are not reflected in OPG's plan
    - The Ministry anticipates that as part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would purchase the right to future cash flows from IESO, financed partly by capital infusions from the Province, and majority by third-party lending
    - These changes are generally expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income
    - In addition, the Province's net debt position would remain unchanged

1. BUSINESS PLAN OVERVIEW

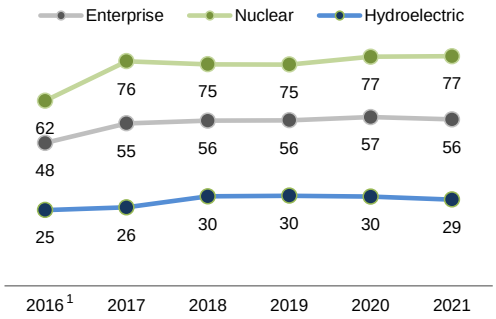
a) Production & Total Cost of Generation

- OPG's production is expected to fall to 69.8 TWh by 2021 from 77.6 TWh in 2016
    - Reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016
    - Includes a partial overlap starting in 2021 between second and third unit refurbishments, and
    - Includes the Pickering Vacuum Building Outage (VBO) in 2021 requiring the shutdown of all units for the duration of the outage
- While OM&A remains relatively stable over the planning period (see next slide), total generating cost (TGC)* shows an increasing trend over the planning period relative to 2016, reflecting:
    - Lower nuclear production due to Darlington refurbishment outages, and
    - Increased sustaining capital spending (included in TGC) on two large hydroelectric projects, the Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation

Production (TWh)



Total Generating Cost ($/MWh)



1. Actuals

*TGC = operations, maintenance and administration (OM&A) expenses from ongoing operations + fuel and Gross Revenue Charge expenses for OPG-operated stations + sustaining capital expenditures) divided by OPG generation adjusted for surplus baseload generation losses

b) Operations, Maintenance and Administration (OM&A) Expenses

- Annual OM&A expenses from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year
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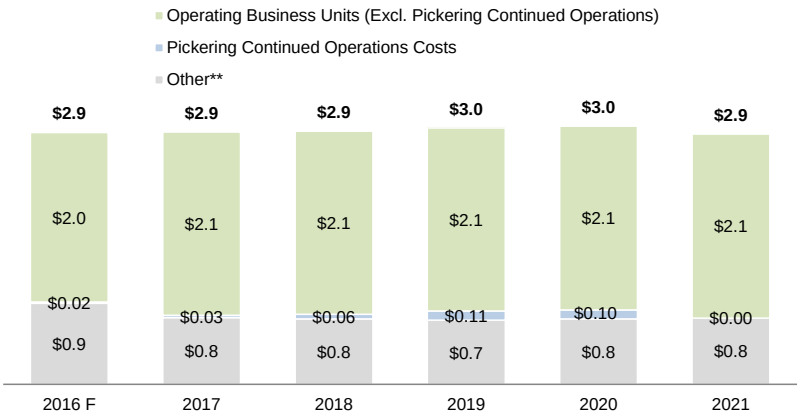
OM&A from Ongoing Operations* ($B)



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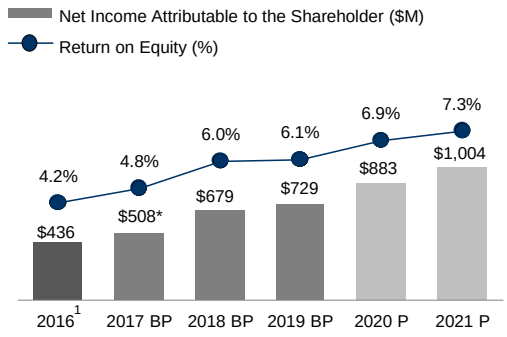
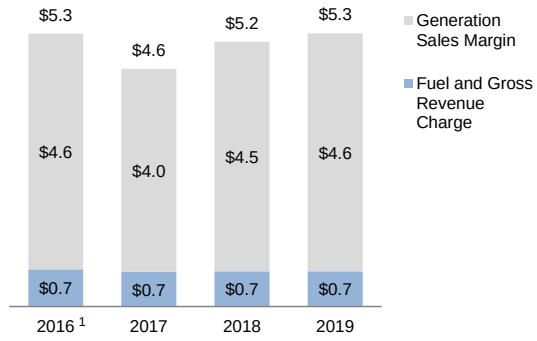
Net Income ($M) and ROE (%)



Revenue Margin ($B)



1. Actuals

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d) Provincial Fiscal Impacts: Shareholder Return and Payments-in-Lieu of Taxes

- Total fiscal revenue impacts to the Province, including net income return to the shareholder and payments-in-lieu of taxes, averages ~$1B over the period
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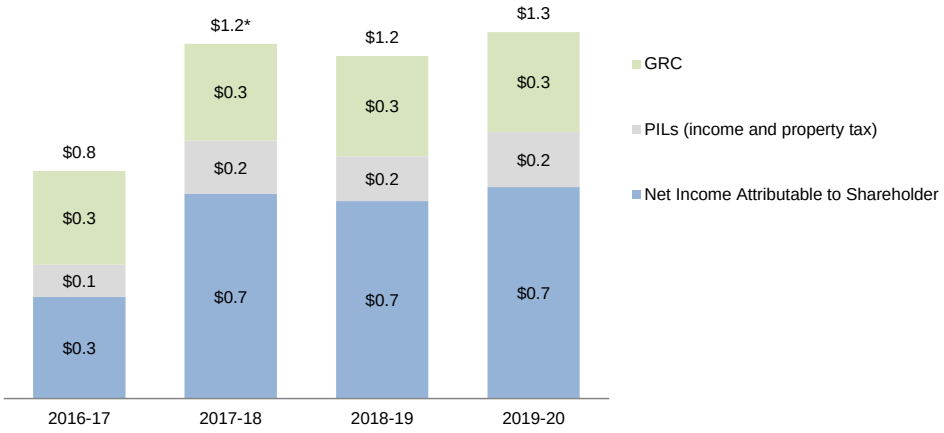

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- As part of a company-wide business transformation, OPG saved over $1B in costs from January 2011 to December 2016
    - Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3
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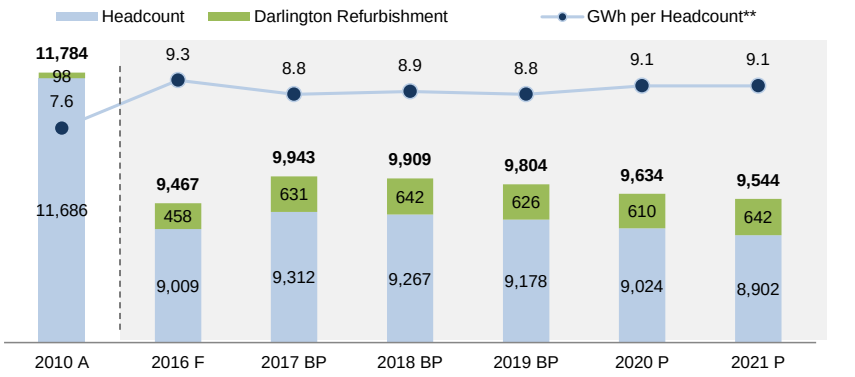

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f) Operating Highlights - Projects and Capital Expenditures

- OPG continues to focus on delivery of its major projects over the plan period, including:
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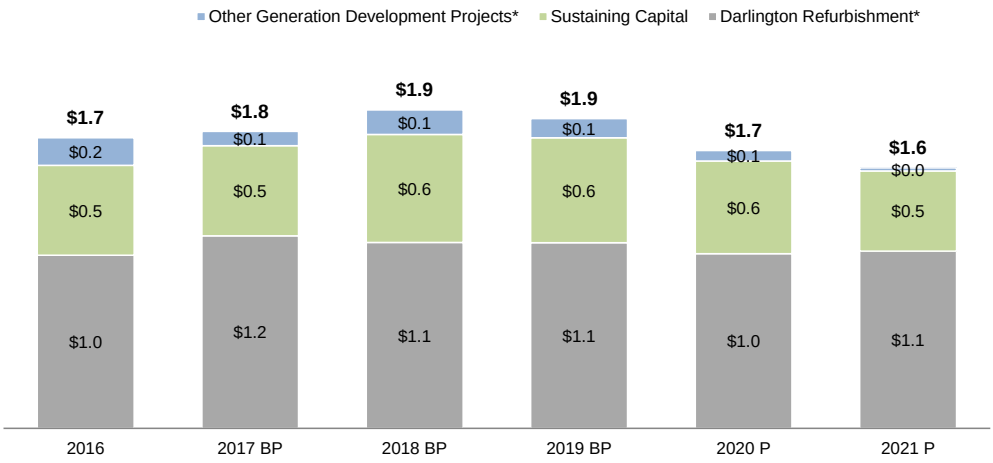

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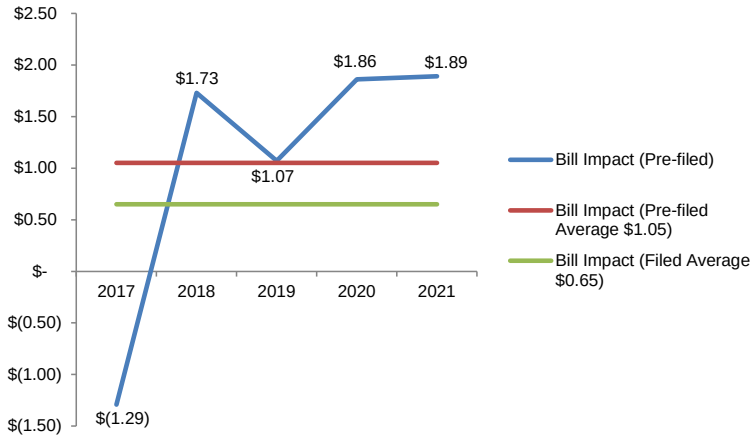
Comparison of Annual Bill Impact ($/Month per year)



*Forecasted in May 2016

Sales

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

Special Status for OPG to Approve International Travel

- On January 24, 2017, OPG's President and CEO wrote to the Deputy Minister to provide a business case and request authority for OPG to approve international travel for its employees. In summary:
    - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business

- OPG believes that international travel is integral to the safe and prudent operation of its business and having OPG's CEO approve international travel will enable more efficient decision-making while significantly lowering travel costs
- OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for over $30 billion in pension fund and nuclear funds
- OPG requires a high level of international business travel at approximately 90-100 trips annually, while the Darlington Refurbishment Project accounts for 45% of OPG's international travel and is expected see increases over the 10 year life of the project
- OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date
- OPG believes the inability to make timely commitments on events and meetings impacts employee engagement as well as its international relationships and reputation

- OPG is seeking Special Status as part of concurrence with its business plan. OPG has committed to providing semi-annual reports to the Ministry on international travel taken, and continue to be accountable for compliance with all applicable OPS directives, policies and procedures

RECOMMENDATION

The Ministry of ENERGY is requesting that Treasury Board/Management Board of Cabinet (TB/MBC):

1. NOTE the receipt of OPG's 2017-2019 Business Plan.
2. NOTE that the Minister of Energy will provide concurrence with OPG's Business Plan.
3. APPROVE OPG's application for Special Status to Approve International Travel under Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive dated January 1, 2017.

APPENDIX

OPG 2016 Year-End Financials

OPG Balance Sheet as at Dec 31 $B	2016
Assets	
Cash and cash equivalents	0.2
Available-for-sale securities	0.2
Receivables from related parties	0.4
Nuclear fixed asset removal and nuclear waste management funds	0.02
Other current assets	0.9
Total current assets	**$1.7**
Net property, plant and equipment	**$20.0**
Net intangible assets	**$0.1**
Nuclear fixed asset removal and nuclear waste management funds	16.0
Regulatory assets	5.9
Other long-term assets	0.7
Other assets	**$22.5**
Total assets	**$44.4**
Liabilities	
Accounts payable and accrued charges	1.2
Short-term debt and long-term debt due within one year	1.1
Income taxes payable and other current liabilities	0.1
Total current liabilities	**$2.4**
Long-term debt	4.4
Fixed asset removal and nuclear waste management liabilities	19.5
Pension liabilities	3.0
Other post-employment benefit liabilities	2.9
Other liabilities	1.7
	$31.5
Total liabilities	**$33.9**
Equity	
Equity attributable to the Shareholder	10.4
Equity attributable to non-controlling interest	0.1
Total equity	**$10.5**
Total liabilities and equity	**$44.4**

OPG Income Statement Year Ended Dec 31 $B	2016
Revenue	$5.7
Fuel expense	0.7
Gross margin	**$4.9**
Operations, maintenance and administration	2.7
Depreciation and amortization	1.3
Accretion on fixed asset removal and nuclear waste management liabilities	0.9
Earnings on nuclear fixed asset removal and nuclear waste management funds	-0.7
Other expenses	0.02
Total expenses	**$4.2**
Income before other (gains) losses, interest and income taxes	**$0.7**
Other (gains) losses	-0.02
Income before interest and income taxes	**$0.7**
Net interest expense	0.1
Income before income taxes	**$0.6**
Income tax expense	0.2
Net income	**$0.5**
Net income attributable to the Shareholder	**$0.4**
Net income attributable to non-controlling interest	**$0.02**

Ontario

MINISTRY OF
ENERGY

Ontario Power Generation (OPG) 2017-19 Business Plan and Special Status Application

May 2017

Context

- As required by the Memorandum of Agreement (MOA) between Ontario Power Generation and the Minister of Energy, OPG provided its Business Plan for 2017-2019 to the Ministry of Energy on November 29, 2016 for concurrence
  - Note that while OPG is seeking concurrence for its three year 2017-19 business plan, the plan also includes financial projections for 2020 and 2021
- With this Business Plan OPG is also making an application for Special Status under the Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive, which allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business
- The Minister's concurrence requires presentation of OPG's business plan before TB/MBC
- The Ministry of Energy review and analysis of OPG's business plan is supported by the Electricity Investment and Governance Secretariat, a unit within the Ministry of Finance and the Corporate and Electricity Finance Division of the Ontario Financing Authority (OFA)
- The following presentation provides an overview of OPG's business plan, including:
  1. Business Plan Overview
  2. Other Considerations

Context *(cont'd)*

- Proceeding with Provincial concurrence now will demonstrate that OPG has support from its shareholder as it implements the plan and provides clarity to the Ontario Energy Board (OEB) as it reviews OPG's current rate application covering the 2017-2021 period

- Business plan forecasts may be affected by Ontario's Fair Hydro Plan (OFHP). Given the stage of implementation of OFHP and the timing of the receipt of the business plan in November 2016, these changes are not reflected in OPG's plan

  - The Ministry anticipates that as part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would purchase the right to future cash flows from IESO, financed partly by capital infusions from the Province, and majority by third-party lending

  - These changes are generally expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income

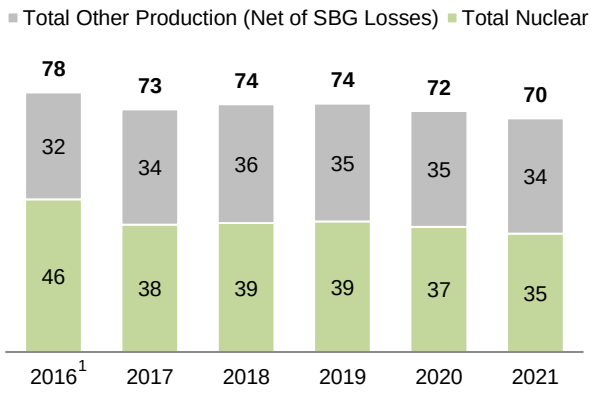
  - In addition, the Province's net debt position would remain unchanged

1. Business Plan Overview

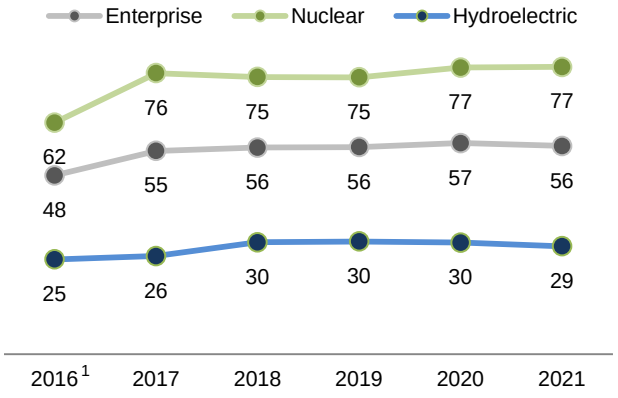
a) Production & Total Cost of Generation

- OPG's production is expected to fall to 69.8 TWh by 2021 from 77.6 TWh in 2016
  - Reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016
  - Includes a partial overlap starting in 2021 between second and third unit refurbishments, and
  - Includes the Pickering Vacuum Building Outage (VBO) in 2021 requiring the shutdown of all units for the duration of the outage
- While Operations, Maintenance and Administration (OM&A) remains relatively stable over the planning period (see next slide), total generating cost (TGC)* shows an increasing trend over the planning period relative to 2016, reflecting:
  - Lower nuclear production due to Darlington refurbishment outages, and
  - Increased sustaining capital spending (included in TGC) on two large hydroelectric projects, the Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation

Production (TWh)



Total Generating Cost ($/MWh)



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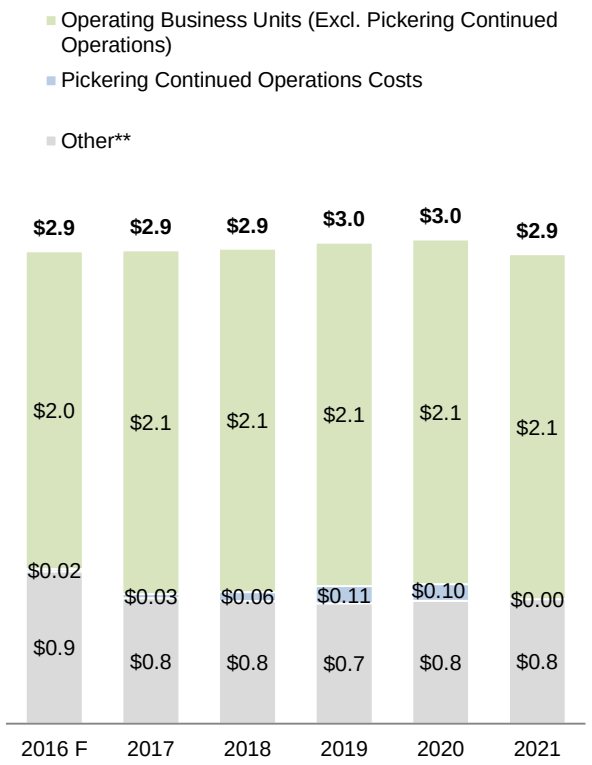

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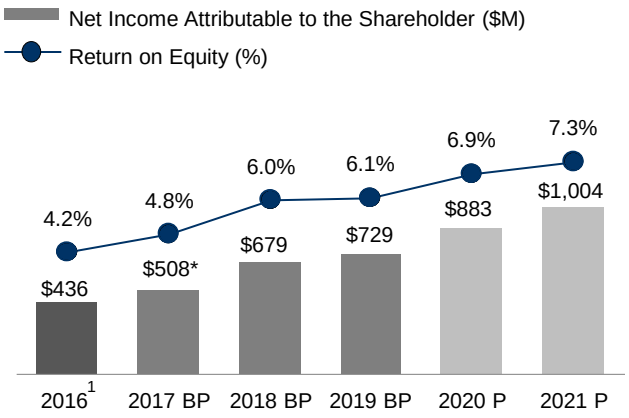

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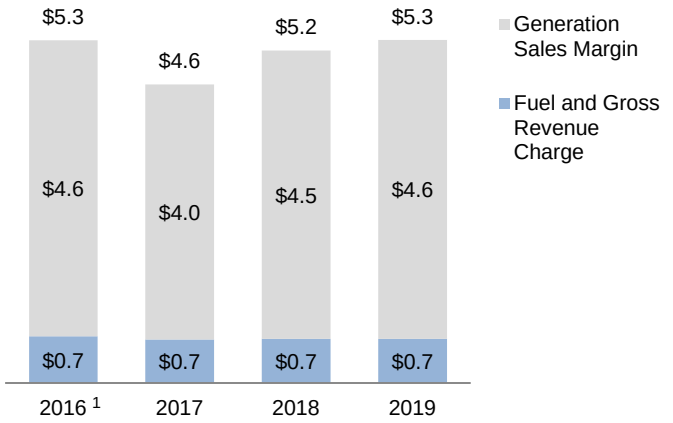

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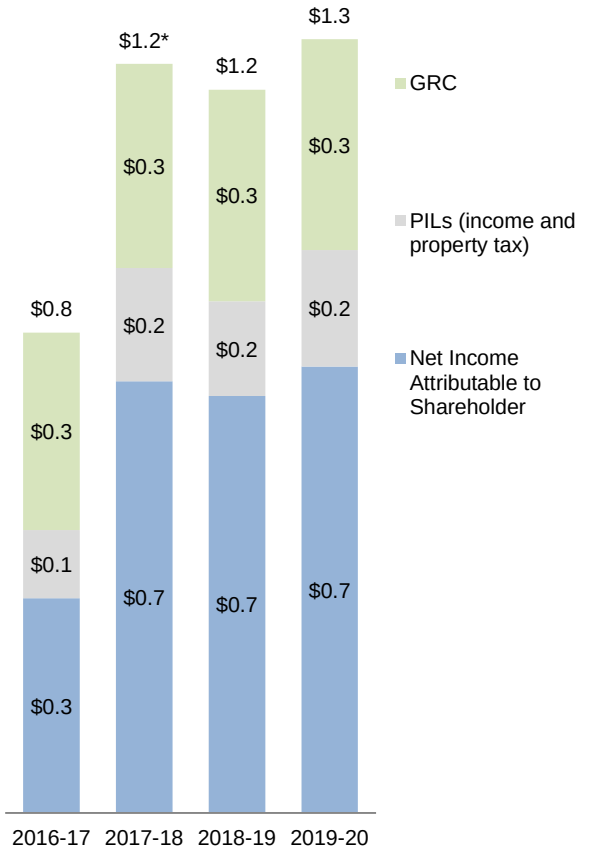

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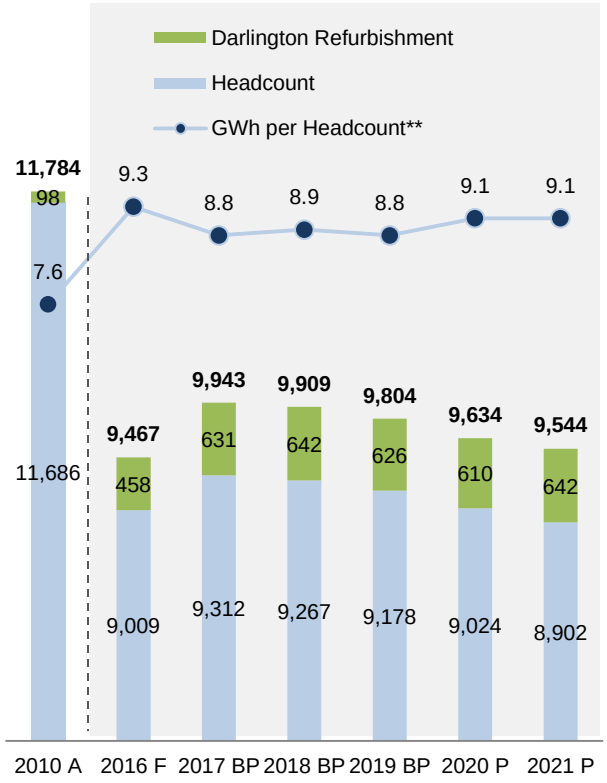

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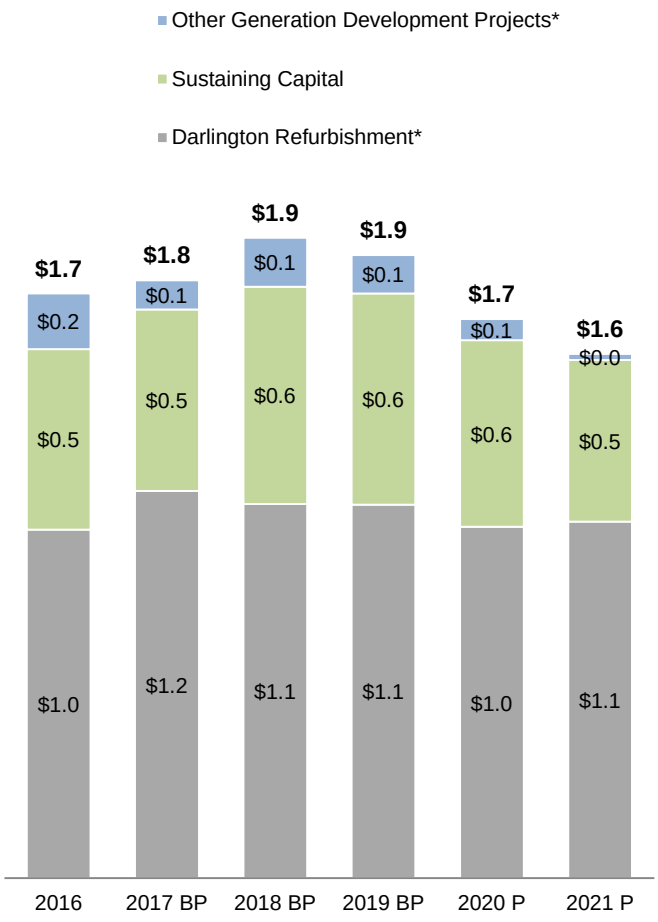

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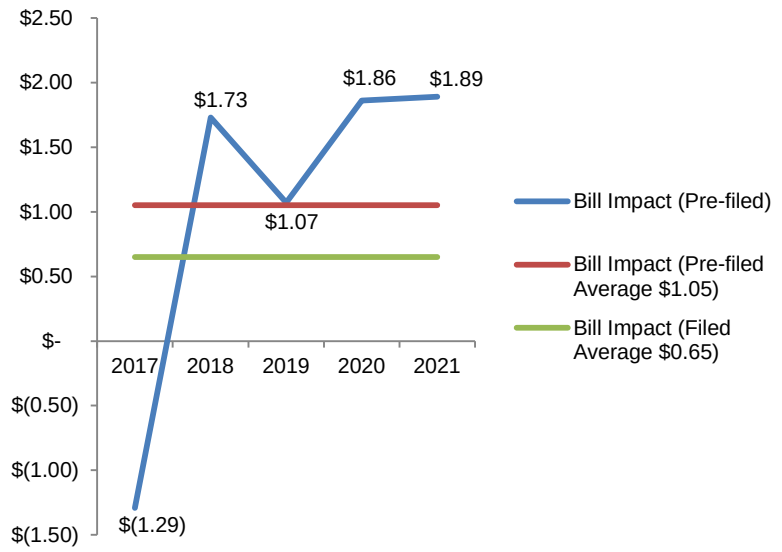
- On March 8, 2017 OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average year-over-year annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year

Comparison of Annual Bill Impact ($/Month per year)



*Forecasted in May 2016

2. Other Considerations

Sales

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

2. Other Considerations

Special Status for OPG to Approve International Travel

- On January 24, 2017, OPG's President and CEO wrote to the Deputy Minister to provide a business case and request authority for OPG to approve international travel for its employees. In summary:
  - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business
  - OPG believes that international travel is integral to the safe and prudent operation of its business and having OPG's CEO approve international travel will enable more efficient decision-making while significantly lowering travel costs
  - OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for over $30 billion in pension fund and nuclear funds
  - OPG requires a high level of international business travel at approximately 90-100 trips annually, while the Darlington Refurbishment Project accounts for 45% of OPG's international travel and is expected see increases over the 10 year life of the project
  - OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date
  - OPG believes the inability to make timely commitments on events and meetings impacts employee engagement as well as its international relationships and reputation
- OPG is seeking Special Status as part of concurrence with its business plan. OPG has committed to providing semi-annual reports to the Ministry on international travel taken, and continue to be accountable for compliance with all applicable OPS directives, policies and procedures

Appendix

2016 Year-End Financials

OPG Balance Sheet as at Dec 31 $B	2016
Assets	
Cash and cash equivalents	0.2
Available-for-sale securities	0.2
Receivables from related parties	0.4
Nuclear fixed asset removal and nuclear waste management funds	0.02
Other current assets	0.9
Total current assets	**$1.7**
Net property, plant and equipment	**$20.0**
Net intangible assets	**$0.1**
Nuclear fixed asset removal and nuclear waste management funds	16.0
Regulatory assets	5.9
Other long-term assets	0.7
Other assets	**$22.5**
Total assets	**$44.4**
Liabilities	
Accounts payable and accrued charges	1.2
Short-term debt and long-term debt due within one year	1.1
Income taxes payable and other current liabilities	0.1
Total current liabilities	**$2.4**
Long-term debt	4.4
Fixed asset removal and nuclear waste management liabilities	19.5
Pension liabilities	3.0
Other post-employment benefit liabilities	2.9
Other liabilities	1.7
	$31.5
Total liabilities	**$33.9**
Equity	
Equity attributable to the Shareholder	10.4
Equity attributable to non-controlling interest	0.1
Total equity	**$10.5**
Total liabilities and equity	**$44.4**

OPG Income Statement Year Ended Dec 31 $B	2016
Revenue	$5.7
Fuel expense	0.7
Gross margin	**$4.9**
Operations, maintenance and administration	2.7
Depreciation and amortization	1.3
Accretion on fixed asset removal and nuclear waste management liabilities	0.9
Earnings on nuclear fixed asset removal and nuclear waste management funds	-0.7
Other expenses	0.02
Total expenses	**$4.2**
Income before other (gains) losses, interest and income taxes	**$0.7**
Other (gains) losses	-0.02
Income before interest and income taxes	**$0.7**
Net interest expense	0.1
Income before income taxes	**$0.6**
Income tax expense	0.2
Net income	**$0.5**
Net income attributable to the Shareholder	**$0.4**
Net income attributable to non-controlling interest	**$0.02**

From:	Adam Prokop
To:	Bruno Amara
Cc:	John Kim; Salman Qadir; Gavin He; Shajee Kathirgamanathan
Subject:	OPG Equity Injection Summary
Date:	Thursday, March 16, 2017 2:10:53 PM

Hey Bruno,

Just a quick recap of the meeting today.

OPG Comments

- Suggesting that equity injection would take place after the legislation and trust structure in place.
- First introduction to legislation in April.
- May timeline for completion of all requirements, with a target of the reduction occurring on June or July bills.
- Ministry of Energy is focusing on the legislation.
- The OFA side will be working on the Provincial approvals for equity injection.
- Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
- Equity injection is meant to be as simple as possible – quarterly injections is being tabled with annual shareholder and board approval.
- Would likely need a ten-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
- Thus, seeking a type of "blanket approval" mechanism.
- Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.
- Special board meetings from OPG are likely to meet the May target.
- Recognizes that the scheduled timeline is a moving target.

Discussion Questions

- Is May a realistic timeline?
- How will the approval process work with OPG and Province; will it be timed with other annual approvals?
- The source of interim financing has not yet been determined.
- OFA needs to open discussion with TBS to determine what approvals are needed and what process should be implemented.
- There may be a conflict between the targeted irrevocability of the future revenues from ratepayers and the aspect of share redemption – a Provincial guarantee may be required.
- OFA would act as support to TBS.
- There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of shares in the subscription.
- What funding does OPG have available now, and what could be used for interim financing for OPG Trust? (They have $700M line of credit for Darlington refurbishment and general corporate purposes, and $1B revolving bank credit facility, both which have been untapped

as of Dec 31, 2016. Short term credit of $460M only has $74M in availability.)

Overall, the meeting was very high level. A placeholder meeting will be scheduled for next week.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Francisco Chinchon
To:	Ronald Kwan; John Kim
Cc:	Darren Scanlan
Subject:	OPG Trust Financing
Date:	Friday, March 10, 2017 3:14:03 PM
Attachments:	OPG GA Deferral Trust (2017 03 09 v4).docx

Hi Ron, John,

Arie and Wentao put together a note that explains what we need to do and the challenges/questions we will probably face. Is intended to map the road, we can expand as we have more clarity.

All comments are welcome.

Francisco

From: Arie Jarczyn
Sent: Friday, March 10, 2017 2:14 PM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi looks good to us, just a few edits.

Thanks,
Arie

From: Francisco Chinchon
Sent: Friday, March 10, 2017 1:41 PM
To: Arie Jarczyn <Arie.Jarczyn@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Looks good. I added a bit, please review.

From: Arie Jarczyn
Sent: Friday, March 10, 2017 9:56 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: OPG Trust Financing

Hi Francisco,

Please find for review a draft that Darren, Wentao and I worked on, on the mechanics on funding the OPG Trust

Saved here

Arie Jarczyn
Senior Advisor
Strategic Investment and Finance Branch
Ontario Financing Authority
Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

OPG Trust Financing

Issue

The Province is working with OPG to establish a Trust to finance the global adjustment (GA) payment deferral as part of the Province's recent plan to reduce ratepayer electricity bills.

Context

- The Province and OPG seek to create a Trust to handle the GA deferrals as part of the Province's recent rate mitigation proposal.

- Ministry of Energy's (ENERGY) materials note that significant amount of debt to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would likely be downgraded.

- As a result, the capital structure of the Trust would be a combination of debt and equity.

- The equity portion of funding for the Trust is expected to come from the Province through capital contributions / equity injections into OPG, which would then be loaned to the Trust.

    - Under the terms necessary for OPG to consolidate the Trust, the Province or its agencies may not fund more than 50 per cent of the Trust.

    - ENERGY's materials suggest that about 44 per cent be funded via equity injection from the Province / Ontario Electricity Financial Corporation (OEFC).

Mechanics of Financing Equity Portion of OPG Trust

- The mechanics of a capital contribution into OPG could follow the precedent previously completed by the Province in making a capital contribution into Hydro One prior to its initial public offering.

1. The Province would need to create an "Operating Asset" line which would carry the amount of the capital contribution. The creation of this line and the appropriation would require Treasury Board approval.

    - The Operating Asset would either be categorized as a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions would be made outside of legislation. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. The creation of the Operating Asset would need to be included in the Province's tabling of Estimates in the Legislature (tabled following the release of the Provincial Budget). If the Operating Asset is not included in the Estimates, the Province would need to table Supplementary Estimates in the Legislature.

3. The Province would also need to seek approval, through Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would either require the implementing Ministry to find expense offsets, or tabling of Supplementary Estimates. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive shares in the Trust in return.

    - Note that as with the Hydro One capital contribution, this capital contribution represents a balance sheet movement and would not create an upfront fiscal impact to the Province (exchange of cash for shares – both assets).

    - However, there is likely to be on-going carrying costs for the Province associated with any borrowing that the Province will be required to undertake to fund the capital contribution. In the absence of obtaining incremental earnings on the equity invested in OPG, the carrying cost would generate a negative fiscal impact.

Staff Comments/Next Steps

- A key issue that will need to be addressed going forward is which Provincial entity or which Ministry would provide the capital contribution: OEFC, Energy, or Finance.
    - The preceding analysis assumes that a Ministry, and not OEFC, would make the contribution, given that the Province, and not OEFC, owns 100 per cent of the common shares of OPG.
    - Energy provided the capital contribution to Hydro One before the November 2015 IPO, and the Minister of Energy is the shareholder of OPG on behalf of the Province.

- Energy has indicated in the past that it would prefer Public Accounts reporting to remain consistent with historic practice, which is that OPG reports under the Ministry of Finance.
    - The Hydro One initial public offering experience revealed the historic practice is technically a mistake as the Minister of Energy is the shareholder.
    - Given there is no fiscal impact and the Province's Financial Statements show results across Ministries OPCD agreed not to reclassify the investments to Energy but also did not allow the additional equity acquired in Hydro One to be booked by Finance.
    - Staff expects OPCD to have the same view with respect to the proposed capital contribution into OPG.

- The Province would also need to decide on the timing of the capital contribution.

- Assuming that the Trust would seek to maintain the target debt to equity ratio, the Province would need to determine when to make a contribution into the Trust (i.e. monthly, quarterly, annually?)
- It should also be noted that the timing of the contribution (i.e. whether it is at the beginning, middle, or end of a fiscal year) would also have an impact on the carrying costs for the Province should it decide to borrow to finance the contribution (i.e., a contribution earlier in the fiscal year would create higher interest payments for the Province).
- From a financial perspective there are several options to address timing and carrying costs including the issuance of convertible debt in favour of the Province. Staff would need to engage in discussions with OPCD and OPG to assess the financial and reporting impact of the different options.

Corporate and Electricity Finance Division
March 10, 2017

From:	Bruno Amara
To:	Salman Qadir
Cc:	John Kim; Adam Prokop; Shajee Kathirgamanathan
Subject:	One point to confirm
Date:	Friday, April 28, 2017 2:25:13 PM

Hi Salman

I was not aware of the point below. Have seen this in any of the communication. Anyone else?

"OPG Trust is not expected to access public capital markets monthly, nor is it required to purchase the regulatory asset."

Bruno

From: Bruno Amara
To: Malle Hanslep (MOF)
Subject: Ontario fair Hydro Plan - GA Financing equity injection
Date: Monday, March 27, 2017 1:55:06 PM

Hi Malle,

I understand that your office was involved in assisting with aspects of the Hydro One IPO transaction. Electricity Finance Branch is participating on a working group (with OPG) looking into the province's equity injection around the Global Adjustment Financing component of the Ontario Fair Hydro Plan. I'm not sure of your involvement at this stage, or with whom, but we're happy to keep you, or appropriate contact, looped in to the discussions that we are having on this issue, or provide background

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: Nelms, Scott (MOF)
To: Ronald Kwan; John Kim
Subject: PILs Exemptions
Date: Tuesday, April 25, 2017 3:49:19 PM

Hi Ron, John,

I wanted to keep you apprised of where we are with Tax Policy on OPG's request for specific PILs exemptions as part of OFHP. See below for details – we are hoping to punt to regulations.

Thanks,
Scott

From: Nelms, Scott (MOF)
Sent: April 25, 2017 3:25 PM
To: 'Hill, Krista'; john.s.lee@opg.com
Cc: RYFA Ken -TREASURY; WONG Leslie -LAWDIV; Wortsman, Jerald; Watson, Gwen; Feldman, Michael; Calwell, Carolyn (ENERGY/MEDEI/MRI); Rehob, James (ENERGY)
Subject: RE: Comments

Hi Krista, John,

We shared your ask with Finance Tax Policy and they have been mulling this over for the past few days. We had a conversation this morning and I wanted to provide a synopsis of that call:

- Tax Policy is of the view that if this is structured as a Trust will be a taxable entity under the Income Tax Act. However, because OPG is the beneficiary of the Trust, it will not pay any taxes. For greater certainty, Tax Policy suggested seeking a ruling from CRA. If necessary, we could seek an exemption from CRA (there is precedent with the Nuclear Funds Trust). Please let me know whether that is consistent with your assessment.
- Since all income from the Trust will flow to OPG, all revenues would be subject to PILs (unless we take action to make specific exemptions).
- As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust.
- Tax Policy has a number of questions about how to define those exempted revenue streams and the rationale for those exemptions. They want considerably more detail and more time to consider this issue.
- According to Tax Policy, existing Legislation (James I will leave it to you to describe) provides authority to set out PILs exemptions in regulations. Therefore they suggest we do not need to add anything in to the OFHP legislation at this time. That will provide time to more fully consider the issue and discuss the need for these exemptions.
- I suggested I was generally comfortable with this approach, subject to input from OPG and Torys. I think it is better for us to have more time and the flexibility to include these provisions in regulations. Given where we are in the process, I think we are out of time to settle legislative language that will work for Tax Policy.

James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From: Adam Prokop
To: John Kim
Cc: Bruno Amara; Salman Qadir
Subject: PSAB Regulatory Asset Recognition
Date: Thursday, April 20, 2017 12:47:18 PM
Attachments: PSAB Regulatory Assets.docx

Hello John,

Attached is my research on regulatory assets and PSAB. My main conclusions are that

- Government reporting entities other than GBEs, such as IESO, may be allowed to recognize regulatory assets by effectively applying IFRS – this is what IESO is doing now as it is a non-GBE that recognizes regulatory assets.
- However, upon consolidation with the government, it seems that PSAB must be followed exclusively, with an adjustment to de-recognize the regulatory assets.
    - Is there someone from IESO or another area we could contact to confirm this has happened in the past?

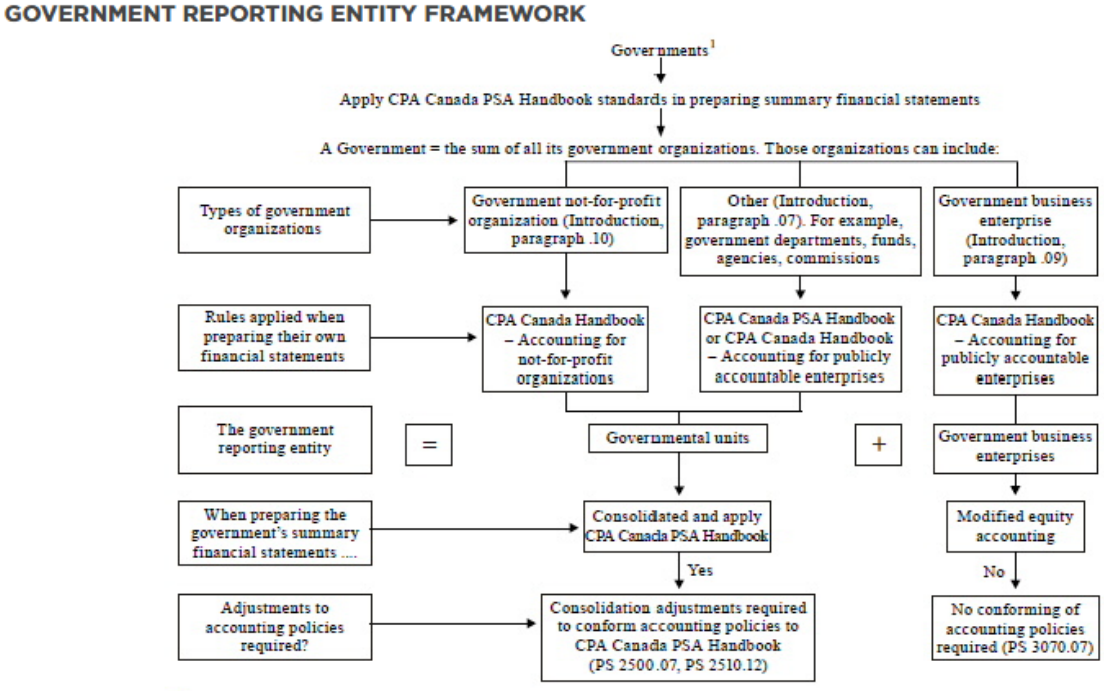
The diagram attached in the word file illustrates the consolidation process.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

PSAB Regulatory Asset Recognition

- IESO, which follows Canadian Public Sector Accounting Standards (PSAB), has two regulatory asset accounts in its financial statements of approximately $65.1M ($88.2M in 2015).
    - One asset account is for unrecovered smart metre expenses, while the other is for uncovered costs from readjustments to accounting statements in prior years due to IESO adopting PSAB in the beginning of 2011.
        - The majority of the unrecovered PSAB costs deal with changes in pension and other post-employment benefits that led to previously unrecognized losses.
- PSAB (The latest December 2014 version) has no standards for regulatory assets.
- PSAB states that other government reporting entities (this includes IESO, as not a GBE) could consider the CPA Handbook – Part I for standard setting if PSAB does not meet financial statement user needs.
    - CPA Handbook – Part I is Canadian GAAP which is essentially International Financial Reporting Standards that have been adopted by the Accounting Standards Board after an approval process.
    - *The policy of the Accounting Standards Board is to adopt International Financial Reporting Standards without modification* (From CPA Handbook Part I, Introduction, 2017 Edition)
- Governmental units are included in a government's financial statements after their accounting policies have been conformed to those of the government.
    - Need to confirm if IESO, on consolidation in Provincial accounts, has the regulatory assets recognized.
- Even if IESO is allowed to recognize regulatory assets, unlikely that the Province can recognize this upon consolidation:



Supporting Evidence – from PSAB standards and IESO 2016 Financial statement

IESO

- IESO's financial statements are prepared on a going concern basis and in accordance with Canadian public sector accounting standards (PSAB) and reflect the following significant accounting policies.
- IESO, which is consolidated line-by-line with the Province, has two regulated assets recognised
    - **Unrecovered smart metering expenses:** The smart metering expenses result from the IESO's role as the Smart Metering Entity. As such, the IESO funds its SME operating costs and capital investment in the meter data management/repository (MDM/R) through fees from users of smart meters in Ontario. The OEB approves the Smart Metering Entity charge and the charge is intended to cover the costs of developing and operating the MDM/R.
    - **Unrecovered PSAB transition items**: The unrecovered PSAB transition items result from the IESO's adoption of Canadian public sector accounting standards effective January 1, 2011. The adoption of PSAB was accounted for by retroactive application with restatement of prior periods subject to the requirements in Section PS 2125, First-time Adoption by Government Organizations.

Regulated assets consist of the following:

As of December 31 (in thousands of Canadian dollars)	2016	2015
	$	$
Unrecovered smart metering expenses	21,623	40,849
Unrecovered PSAB transition items	43,441	47,353
Closing balance	**65,064**	**88,202**

- As of January 1, 2016, the IESO changed its accounting policy regarding the recognition of assets and liabilities subject to rate regulation. The change was made to better reflect the economic substance of certain types of expenses that may not be directly recovered through the normal revenue requirement model.
- IESO also has an OEB approved regulatory deferral account:
    - Historically, the IESO's approved regulatory deferral account balance has been maintained at a maximum of $10.0 million ($5.0 million each of the former IESO and OPA for a combined $10.0 million).

Introduction to PSAB

.19 For purposes of preparing general purpose financial statements, other government organizations would normally apply the standards for governments in the PSA Handbook. When these standards do not meet their financial statement users' needs, the standards applicable to publicly accountable enterprises in Part I of the CPA Canada Handbook – Accounting should be considered. The standards determined to be most appropriate should be disclosed and consistently applied.

.20 Determining the most appropriate standards for other government organizations requires the application of professional judgment. Factors to consider in assessing users' needs, in addition to those outlined in FINANCIAL STATEMENT CONCEPTS, Section PS 1000, include, but are not limited to, whether an organization:

(a) has issued, or is in the process of issuing, debt or equity instruments that are, or will be, outstanding and traded in a public market (for example, a domestic or foreign stock exchange or an over-the-counter market, including local and regional markets);

(b) holds assets in a fiduciary capacity for a broad group of outsiders as one of its primary businesses;

(c) has commercial-type operations and substantially derives its revenue from these activities; and

(d) receives limited government assistance on an ongoing basis.

The degree of importance of these factors further depends on the particular circumstances in each case, including the nature of an organization's mandate and considering its purpose, objectives and limitations. In some situations, a particular factor may provide a high degree of evidence of the appropriateness of a particular set of standards whereas, in other situations, the importance of the same factor may not be as significant. Positive responses to one or a combination of these factors would indicate standards applicable to publicly accountable enterprises in Part I of the CPA Canada Handbook – Accounting may be more appropriate.

PS 1000 - CONTEXT OF GOVERNMENT FINANCIAL STATEMENTS

.07 *A government financial report should present information that is useful in evaluating the government's financial condition at the end of the accounting period and its financial performance during the accounting period. Government financial statements are a fundamental component of a government financial report.* [APRIL 2005]

.35 **Assets** are economic resources controlled by a government as a result of past transactions or events and from which future economic benefits are expected to be obtained.

.36 Assets have three essential characteristics:

(a) they embody future economic benefits that involve a capacity, singly or in combination with other assets, to provide goods and services, to provide future cash inflows, or to reduce cash outflows;

(b) the public sector entity can control the economic resource and access to the future economic benefits; and

(c) the transaction or event giving rise to the public sector entity's control has already occurred.

.37 An item is not an asset of a government if it lacks one or more of the essential characteristics listed in the preceding paragraph. Thus, for example, an item does not qualify as an asset of a government if the item involves:

(a) no future economic benefit;

(b) future economic benefit, but the government cannot obtain it; or

(c) future economic benefit that the government may obtain, but the events or circumstances that give the government control of the benefit have not yet occurred.

From: John Kim
To: John Kim
Subject: Price Mitigation
Date: Monday, April 03, 2017 6:41:16 PM
Attachments: External - Draft 5 Annotated (Blks DS) GOV2016.146.e05 (April 3 2017).pdf

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Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

A proposal to create Legislation.

Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

ELECTRICITY ACT, 1998

1. (1) Section 1 of the *Electricity Act, 1998* would be amended by adding the following clause:

[Note: GGRA provisions have been removed for now. Please confirm if they should be re-inserted.]

(2) Clause 1 (f) of the Act would be struck out and the following substituted:

(f) to protect the interests of consumers with respect to the adequacy, reliability and quality of electricity service;

(f.1) to protect the interests of consumers with respect to the prices they pay for electricity, including protection of those interests through the Hydro financing initiative;

[Note: Since the Hydro financing initiative is a defined term and is clearly required to be implemented under the new substantive provisions of the Act, I'm still not sure why this needs to be addressed in the purpose clause. However, I have included a purpose provision as per your instructions.]

Article 1 – Purpose

The proposed new legislation will likely include a large number of provisions intended to support the "financeability" of the structure. As a result, it may make sense for (LSB is exploring the potential) the Bill to create a new stand-alone energy statute, much like the *Green Energy and Green Economy Act, 2009* created the *Green Energy Act, 2009*.

The new legislation would have a purpose clause that explains the objective of intergenerational fairness. This would be useful for the markets to see, and may

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help support the validity of the legislation from a constitutional law perspective (charge vs. tax)

x. Subsection 2 (1) of the Act would be amended by adding the following definitions:

"Financing Entity" means the trust established by Ontario Power Generation Inc. under clause XX (a) or the entity prescribed for the purposes of clause XX (b); ("French")

"hydro financing initiative" means those policies of the Government of Ontario related to its decision to ensure costs to Ontario electricity consumers are allocated fairly over time, taking into account the useful life of new sources of and technologies for electricity; ("French")

[Note: I have applied the precedent of the "smart metering initiative" as per your instructions. Just want to reiterate my concern that the reference to government policies is really vague (which initiative/ policies? At which point in time?) and I think this could cause lots of confusion, particularly if the policies evolve over time. It could also have unintended consequences.]

[Note: To consider -- by describing the initiative as we have in the above definition, we are potentially linking the deferred amount to amounts that would otherwise be paid for by consumers as part of the GA. If the deferred amounts are not all about "the useful life of new sources and technologies" then the description of the initiative should likely be broadened. (For example, if some of the deferred amount may be used to cover high wholesale prices, one could argue that the initiative is NOT about allocating costs fairly over time… it's just about pushing the cost increase to future consumers without considering what is "fair" across the generations.]

Article 2 - Definitions

The new legislation will include many new defined terms. One important term will be "Funding Shortfall" (or equivalent wording). This will be the net reduction in cash flows to IESO as a result of the reallocation of a portion of the Global Adjustment to later periods of time. Currently, the "Funding Shortfall" would be limited to the Global Adjustment attributable to the procurement contracts, but this is a question that still has to be settled.

Another important defined term that is worth noting is "Replacement Event". This is an event under which the market would want to replace a person who has responsibility to take essential actions under the program (including LDCs, IESO and OPG), like invoicing and collecting amounts.

Confidential Draft

The triggering events are likely to include insolvency and breach of duty/obligation.

Another key defined term is "Transition Charge". This is the amount that will be calculated and applied to the "deferral consumers", based on the amounts of payments due under funding obligations incurred to cover the funding shortfall (i.e., what we have until now been calling "deferral repayments").

Another important defined term will be "Treasury Plan". This will be the written plan prepared by OPG relating to the sale of the "regulatory asset(s)" to the OPG Financing Entity (sometimes previously referred to as the "Financing Trust") and the debt issued by the OPG Financing Entity to the markets.

Another defined term will be "True-up Amount". This is a key provision for the market. It allows for a catch-up for estimate/actual adjustments and to address consumer non-payment credit losses.

A further defined term will be "Undertaking of the Province". This will be a promise by the Government not to impair the program. This will be expected by the market, even though it will be understood that there may be issues for investors to enforce the promise, or get damages if there is a breach.

x. (1) Subsection 6 (1) of the Act would be amended by adding the following clauses:

(q.1) to enter into agreements or arrangements with the Financing Entity;

(q.2) to engage in activities related to making payments to and receiving payments from the Financing Entity under Part V.2, as required under this Act, and to engage in related settlement activities;

Note: Is some of this covered already by clause (i)? Could we address this by expanding upon clause (i)? Trying to understand whether there is any potential overlap.]

(q.3) to engage in activities related to the [sale/disposition/conveyance/assignment] of the [right/regulatory asset] created under section XX, which activities may include,

[Note: As discussed, please confirm terminology.]

(i) incurring liabilities in relation to the [right/asset];

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(ii) [selling/assigning/disposing of?] the [right/asset] to the Financing Entity;

(iii) assigning [the right/asset] to third parties;

[Note: I don't understand (iii) -- I thought the rights to the asset were being assigned to the trust and nobody else?]

(q.4) acting as a recovery agent for the Financing Entity in relation to [the right/asset];

x. (1) Subsections 25.33 (1) and (2) of the Act would be repealed and the following substituted [TBD].

[Note: As per our telephone discussion today (March 27), there seems to be ongoing debate about the policy direction:

1. Do you want to amend the GAM so that the money received from the FE and the money recovered by the FE are part of the initial GA calculation?

2. Do you want to leave the GAM section as is and add a requirement (in a new section) for the IESO to conduct additional adjustments for a subset of the payments referred to in s. 25.33? This second adjustment would be engaged in after the existing GAM is calculated. So it would be a further adjustment of what has already been adjusted under the GAM.

Until this fundamental question is answered, we would be removing the proposed amendments to s. 25.33.]

OPTION 2:

Deferral adjustments, 25.33 amounts.

25.33.2 (0.1) For the purposes of this section and sections 25.34 and 25.35,

(a) "authorized entity" means **[the hydro financing trust established by Ontario Power Generation Inc. for the sole purpose of financing the recovery of the balance in the deferral account, or]** such **[other]** entity as may be prescribed by regulation;

(b) "deferral account" means the deferral account established under section 25.34;

(c) "deferral amount" means the amount recorded in the deferral account for each month during the deferral and recovery period;

(d) "deferral and recovery period" means the period from May 1, 2017 to April 30, 2047;

(e) "deferral consumer" means a consumer who is a member of a class of consumers prescribed by the regulations for the purposes of sections 25.34 and 25.35;

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[NTD: This will be set out in a new subection 4(3) of O. Reg. 95/05 and will reflect OREC-eligible consumers other than non-grid connected customers of IPAs (who would not pay a GA charge anyway). Note that this is not quite the same as "RPP-eligible" consumers.]

(f) "electricity supply cost" means the amount calculated according to the formula:

(A + B + C + D) - E

where,

A is the amounts paid by the IESO to generators, the Financial Corporation and distributors, whether the amounts are determined under the market rules or under section 78.1, 78.2 or 78.5 of the *Ontario Energy Board Act, 1998,*

B is the amounts paid by the IESO to entities with whom the IESO has a procurement contract, as determined under the procurement contract,

[NTD: A and B use exactly the same wording as is set out in (a) and (b) of the existing ss. 25.33(1).]

C is

[NTD: C is the "net new" costs associated with the GA deferral. These are costs that the IESO will record in the GA deferral account established under s. 25.34, and that the IESO (or its assignee) will subsequently recover. These costs consist of the interest and financing-related admin costs associated with the GA deferral (which costs will be flowed through from the hydro financing trust to the IESO). These costs do not include the principal amount deferred and recovered, since that is already captured as part of A and B.

The "net new" costs in C will be recoverable solely from a newly prescribed class of consumers - deferral consumers (i.e. those consumers who will benefit from the GA deferral). The rules for the recovery of these costs will be part of a new subsection 4(3) of the RPP Regulation.]

D is any other amounts that may be prescribed by regulation,

[NTD: Paragraph D would give us flexibility to add new cost categories by reg. if/as needed now or later.]

[GGRA-related amendments are removed for the time-being]

and

E is any other amounts that may be prescribed by regulation;

[NTD: Paragraph E would give us flexibility to add new cost categories by reg.

Question for leg counsel: If in the future HOEP were to exceed contract prices and/or regulated rates, presumably the formula would still work (i.e. in such case the amounts for A and B would simply be negative amounts)?] ***[ntd-LSB: IESO appears to agree with that idea, based on our shared appreciation of how EA s.25.33 works today.]***

(f) "reduction period" means the period commencing May 1, 2017 and ending April 30, 2018;

(g) "RPP Regulation" means Ontario Regulation 95/05 (Classes of Consumers and Determination of Rates).

Electricity pricing adjustments

Adjustments by IESO

(1) The IESO shall, through its billing and settlement systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of market participants in Ontario as are prescribed by regulation, reflect the electricity supply cost.

Adjustments by distributors and retailers

(2) Distributors and retailers shall, through their billing systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of consumers in Ontario as are prescribed by regulation, reflect the electricity supply cost.

[NTD: There will be two "classes of consumers in Ontario that are prescribed" for the purposes of RPP-"plus" deferral – the EA regulation that "prescribes" these two classes will refer to (or be aligned with) the two classes as described in the RPP Regulation. 1) The first class are the deferral consumers (see definition above), and 2) the second class (or defined base consumer) will be the "proxy" Toronto Hydro consumer whose bill will only be allowed to increase year-over-year according to rules prescribed in a new s. 6.1 of the RPP Regulation.]

Variance accounts

(3) The IESO shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by it under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation. *[ntd-DAN: I left "this section"*

even though this provision is part of a new s.25.33.2 – did you want "this section" to refer to "section 25.33"? If so, then we'd add this to the list we've started referencing proposed new s.25.34 and s.25.35. Consider.]

[Drafting note: We can prescribe the different variance accounts that must be maintained, and the different amounts that must be tracked and accounted for, by the IESO. Among other things, the IESO will presumably need to establish variance accounts related to the GA deferral and payback, to take into account timing and other differences. Any financing costs associated with these variance accounts (over and above the financing costs passed through to the IESO by the authorized entity (the hydro financing trust) would be subject to Board scrutiny.]

Same, distributors and retailers

(4) Distributors and retailers shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by them under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation.

x. The Act would be amended by adding the following sections:

Deferral account

25.34 (1) The IESO shall establish a deferral account to record, for each month during the reduction period and the deferral and recovery period, the difference between,

(a) the amounts that would be payable by deferral consumers in respect of the electricity supply cost for the month under section 6.1 of the RPP Regulation; and

(b) the amounts payable by deferral consumers in respect of the electricity supply cost for the month under section 6.2 of the RPP Regulation.

[NTD: IESO to confirm whether the differences between (a) and (b) would be recorded monthly.

Explanatory note: The Board will determine a rate under a new s. 6.1 of the RPP Regulation that will essentially follow the same process the Board uses to establish the RPP rate, except that it will establish a rate for the deferral consumers (which is a slightly broader class than RPP consumers). The Board will also determine a "proxy" rate for the deferral consumers, calculated according to a different set of rules set out in a new s. 6.2 of the RPP Regulation. The rules in s. 6.2 will establish the "proxy" rate for a "proxy" Toronto Hydro customer consuming an average of 750 kWh/mth, to achieve an all-in tax-included total bill amount reduction of approximately 17% (the bill reduction for GA deferral + 8% OREC will result in an all-in bill reduction for May 1, 2017 – April 30, 2018 of 25% over the May 1, 2016 – April 30, 2017 period). There will be

additional rules dealing with bill increases and full repayment of the GA deferral by April 30, 2047.]

Note that because we refer to the new provisions in the RPP Regulation, we will need to amend that regulation *before* the introduction of the proposed legislative amendments. Drafting of the proposed RPP Regulation amendments is underway.

Do we need to create a parallel provision requiring distributors and retailers to establish deferral accounts as well?]

(2) The IESO shall record interest on the balance of the deferral account at a rate or rates reflecting the costs incurred by the IESO, or by any assignee under section 25.35, to finance the amounts recorded in the deferral account.

(3) The IESO shall also record in the deferral account the costs incurred by the IESO to finance the amounts recorded in the deferral account.

[NTD: This is a placeholder for what we will need here. The concept is that ss. (2) and (3) will ultimately apply to the interest and admin costs incurred by the hydro financing trust (assignee of the right of recovery under s. 25.35) in providing funds to the IESO to finance the GA deferral. Those interest costs and admin costs will be fully recoverable through section 25.35, subject to Board scrutiny presumably limited to verifying the calculations. This is not intended to address interest and costs incurred by the IESO and recorded in the variance accounts established under ss. 25.33(5).]

Recovery of GA deferral amounts

25.35 (1) The IESO shall have the right to fully recover the balance recorded in the deferral account. **[The Board shall authorize?]** recovery of the balance from the deferral consumers over the deferral recovery period in accordance with the prescribed rules.

[NTD: What role should the Board play in determining the amounts recovered each year (within the smoothing parameters that are prescribed)? For e.g., could the Board set rates such that the year-over-year increase in the proxy Toronto Hydro customer's all-in bill was less than the maximum permitted under the prescribed rules?

The prescribed rules will be set out in the new s. 6.2 of the RPP Regulation, which will determine how much the "proxy" Toronto Hydro customer's monthly average bill can increase year-over-year (after the reduction period). Basically, for the first four years after the reduction period, the increase will be limited to CPI. For the balance of the deferral and recovery period, the increases will be limited to 10%, with an overarching requirement that the deferral amounts be fully repaid by April 30, 2047.]

Assignment of right of recovery

(2) The IESO shall have the right to assign**[, in whole or in part?,]** to **[one or more?]** authorized entities, the IESO's rights under subsection (1).

[NTD: This is largely a placeholder for what needs to be addressed here. We will need to determine how to characterize this transaction. For e.g., will it be an outright assignment? Will it be a series of assignments? Should it be characterized as a "sale"? How will this transaction be implemented – e.g. by way of a contract between the IESO and the Trust? We will need the input of external counsel and others to ensure that it adequately supports the contemplated financings.]

Payments to assignee

(3) In the event of an assignment to an authorized entity under subsection (2), the IESO shall, through its billing and settlement systems, make payments to the authorized entity of the full amounts paid to the IESO in respect of the rights assigned.

[NTD: This is largely a placeholder for what needs to be addressed here. Iin addition to requiring IESO to make payments to the authorized entity, do we need to include explicit provisions giving the assignee the right to recover the amounts in the deferral account that are covered by the assignment?

We will need provisions dealing with billing and payment as between the authorized entity and IESO. We will also have to decide whether the interest and admin costs incurred by the authorized entity will simply be passed through to IESO, or whether the authorized entity (or OPG) will have an opportunity to keep any profits made on financing activities (swaps, etc.) by establishing some sort of "reference rate" that IESO would have to pay (and that might be different than the rate(s) the authorized entity would have to pay). A middle ground that could be considered would be to cap the amount of profits the authorized entity (or OPG) could make.

Along similar lines, the amounts charged by OPG to the authorized entity to provide admin services should be subject to Board review (e.g. for reasonableness). This would not jeopardize the ability of the authorized entity to recover all of its costs (since it would affect the amounts OPG could recover from the authorized entity).

We also need to contemplate a provision that if there is a change of law by the Government of Ontario that materially adversely affects the ability of the authorized entity to fully recover the assigned deferral account amounts, then repayment of those amounts will be accelerated and become immediately due and payable.]

x. The Act would be amended by adding the following provisions after s.29:

Transition Charges -- Ratepayer Obligation to Pay a Transition Charge

s.29.0.1 (1) Each consumer in the class of ratepayers to which this program applies (previously referred to as the "deferral consumers") will have a direct statutory obligation to the OPG Financing Entity to pay its share of the deferral repayments (principal, interest, financing costs).

Indebtedness of Ratepayers –
(2) This will be a debt owed by the consumer directly to the OPG Financing Entity. If it is not paid, the OPG Financing Entity can sue the consumer directly through the agreed procedures. This is identifying an explicit and identifiable revenue stream for the comfort of investors.

Separate tracking - distributors,
(3) This debt is separate from the debt owed by the consumer to its LDC, although the LDC will be the collection agent.

No set-off, etc. ***[see similar provision at EA s.29.0.3(2)]***
(4) This debt cannot be netted out against any amount owed by the LDC to the consumer (e.g. year-end credit to consumer on equal monthly billing).

Allocation of Ratepayer Payments
(5) If a consumer pays less than its total invoiced amount, the payment will be allocated pro rata between the deferral repayment and the amounts owing to the LDC.

Transition Charges are Irrevocable

(6). This is intended to prohibit any reversal of amounts that must be paid to meet the terms and conditions of the funding obligations to be incurred under the program.

> **The deferral repayments are due regardless of whether a financing obligation incurred under the treasury plan is consistent with government policy at the time a related payment obligation arises.**
>
> **If the Fair Allocation Plan is amended after a funding obligation is properly incurred, any inconsistency in the payment profile will not impair the existing funding obligation or the pass-through of related payment amounts as Transition Charges.**

Anti-avoidance; No-by-pass

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(7) The idea here tracks the U.S. transactions, which say that the obligation of a consumer to pay Transition Charges cannot be "by-passed". If a consumer leaves the grid, he or she will still be obligated. See the highlighted text in the definition of "Ratepayer" for a sense of how this may be accomplished.

> **This concept is a key to a rated market financing and will need to be developed further.**
>
> **For example, self-generating customers could be charged a flat fee (for example, equal to the amount that would be payable by the "representative" Toronto Hydro customer that underpins the current government policy on the 25% or some other basis.)**

Distributor, agent for Financing Entity,
s.29.0.2(1) LDC is agent for the OPG Financing Entity. LDC must invoice the deferral consumer the deferral repayment amount - referable to the items described in "Finance Amount" (i.e., an amount already borrowed).

IESO - Calculation of the Period Transition Charge

(2) IESO will calculate the total amount of deferral financing that will be repayable in an applicable [e.g. 6 month] period.

(3) IESO will then determine the deferral repayments due from deferral consumers based on a prescribed methodology for allocating payments to individual deferral consumers.

Notice of Transition Charges, IESO to distributors

(4) IESO will then inform each LDC of the amount of the deferral repayments to be included in the invoices issued to each deferral consumer in the LDC's service territory.

Adjustments *[ntd: Consider – Deferral repayment amount final]*

(5) Deferral consumers cannot challenge the amount of the deferral repayment showing on their invoice unless there is a substantial calculation error.

Successors of Electricity Distributors –
(6) Any successor of an LDC will be bound by the same obligations as the original LDC re: billing and collecting deferral repayments.

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Successors of IESO –

(7) Any successor of the IESO will be bound by the same obligations as the original IES re: billing and collecting deferral repayments from distributors *[ntd-LSB: what about from consumers?]*.

Appointment of an Alternative Invoicing Agent *[NTD – this provision may be moved closer to the powers/authorities of the OPG financing entity.]*

(8) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect deferral repayments. The LDC must sign whatever agreements and assignments are needed to enable the replacement agent to collect the deferral repayments from the LDC's deferral consumers.

Regulatory Asset Owner has Standing

(9) The OPG Financing Entity (or investors through their security) will be able to sue LDCs for failing to properly calculate or invoice the financing repayments.

29.0.3 Collections and Remittances [Collecting and Remitting Deferral Repayments]

(1) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC or the IESO, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect and remit deferral repayments. The LDC (or IESO, as applicable) must sign whatever agreements and assignments are needed to enable the replacement agent to collect and remit the deferral repayments. "Replacement Events" are necessary to investors to safeguard against a person holding money in a distressed circumstance.

No Set-off, etc. *[see similar provision at EA s.29.0.1(3)]*

(2) The deferral repayments cannot be netted out against any amounts owed by the party responsible for collecting those repayments.

Sequestration,

(3) If any LDC or the IESO fails to remit deferral repayments, the OPG Financing Entity can get a court to order the LDC (or IESO, as applicable) to require them do so.

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x. Subsection 53.1 (1) of the Act would be repealed and the following substituted:

Objects of Ontario Power Generation Inc.

53.1 (1) The objects of Ontario Power Generation Inc. include, in addition to any other objects, the following:

[Note: I know that the words "in addition to any other objects" appears in the current provision, but it seems very odd. This suggests that the objects are unlimited, which doesn't seem to be the intention but I could be wrong.]

1. Owning and operating generation facilities.

2. Establishing, operating and supervising the activities of entities for the purposes of supporting and promoting the government's hydro financing initiative.

3. Providing financial and other support to the IESO in its activities in relation to the hydro financing initiative.

4. Engaging in such financing, borrowing, lending and related activities and transactions to support the IESO with short-term or long-term financing.

5. Providing equity, not exceeding the prescribed amount, to support the financing capacity of the Financing Entity.

Subsidiaries

(1.1) Ontario Power Generation Inc. may create one or more subsidiaries in order to more efficiently conduct its activities or achieve its objects.

x. Section 53.2 of the Act would be repealed and the following substituted:

Rights of the Minister[1]

53.2 (1) The Minister, on behalf of Her Majesty in right of Ontario, may acquire, hold, dispose of and otherwise deal with securities or debt obligations of, or any other interest in, Ontario Power Generation Inc. or any of its subsidiaries.

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[1] FLS - this provision is based on s. 49 of the Act

Agreements

(2) The Minister, on behalf of Her Majesty in right of Ontario, may enter into any agreement or arrangement that the Minister considers necessary or incidental to the exercise of a power under subsection (1).

x. The Act would be amended by adding the following Part:

PART V.2
HYDRO FINANCING INITIATIVE

FAIR HYDRO FINANCING PLAN

Establishment and adoption of the Fair Allocation Plan

A. 1 (1) The Minister of Energy [may/shall] establish a "fair allocation plan"

(a) The purpose of the plan is generally to try and reallocate the portion of GA attributable to the procurement contracts over the anticipated useful life of the generation assets under those contracts.

- **This is the intergenerational funding of the Green Generation Initiaitves.**
- **One policy question is whether the amounts deferred and the period over which the deferred amounts are repaid are to be limited to the portion of GA attributable to the procurement contracts and to the anticipated useful life of the [renewable] generation assets under those contracts.**

- From a constitutional validity perspective (and hence a financeability perspective) these limits are very important.

-Financial/economic modelling to verify this link is required.

Principles and Parameters,

(2) Based on this initial description (which is only illustrative to advance the initial stakeholder discussion), the Minister would determine the details of the "fair allocation plan", but must take into consideration the following principles:

- **The deferred GA costs should be spread over a period not exceeding the anticipated remaining useful life of the generation assets under the procurement contracts**
- **The plan should specify the length of the "reference periods", to identify which deferral consumers are responsible for which deferral repayments**

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- **The share of the deferral repayments to be allocated to deferral consumers in each "reference period" should reflect a reasonable assessment of the remaining anticipated useful life of the generation assets under procurement contracts and perhaps to the benefits received by those deferral consumers from the procurement contracts (e.g. transition off coal)]**

- **No deferral consumer group should bear an unreasonably disproportionate share of the deferral repayments. That could be limited to a maximum amount, determined on a formula basis, if it makes sense tot he stakeholders**

- **In making the allocations, real (i.e. inflation-adjusted) dollars should be usedThe fair allocation plan is made using forward-looking information and projections.**

- **If, after the fact, the Minister determines that a Ratepayer Group paid more than would otherwise would have been the case had the projections for such period been accurate or other considerations come to light, adjustments to the plan could be made.**

Attribution Methodology

(3) The program will need to define how deferral consumers will be allocated an appropriate share of aggregate adjustment amount.

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

(4) Consideration will be needed regarding the level of review and confirmation of the plan is needed or appropriate. For example, should the scope of review be limited to calculations only? If there is a need for review, then consideration will be needed as to who will be the reviewer and under what authority, etc.

THE TREASURY PLAN

Power to Prepare and Implement the Treasury Plan –

A.2 (1) The "Treasury Plan" will be prepared by OPG. It must follow the requirements set out in this Part. Accounting considerations will need to be factored into this delegation, as well as the degree of province input initially and on an on-

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going basis. [Note for leg counsel: We will need to create the necessary sub-delegation authority]

Required Terms and Conditions of the Treasury Plan

(2) The Treasury Plan will establish the basis for OPG making funding decisions, which will need to align with the Fair Allocation Plan.

Power to Review and Approve the Treasury Plan

(3) The Minister may designate one or more persons to review, and require changes to the Treasury Plan. (This review could also be given to the Minister.) *[NTD-: Assumin no role for OEB – confirm. Any role for MOF/OFA here?]*

Obligation to Apply IESO Remittances,

(4) OPG will need to ensure that pass-through amounts, transferred to it as agent for the OPG Financing Entity, are only used to repay the debt and related costs.

Non-Recourse,

(5) The Treasury Plan will provide that the investors and other contracting parties will not have recourse to the IESO, LDCs, agents, the OEB or the Province, except where such parties fail to comply with applicable law. This may be modified in the contracts under which a financing arises.

> **NOTE: The documentation creating the Funding Obligations must expressly state that such obligations are not guaranteed by the Province.**
>
> **NOTE: See IESO/Stikeman's language for "Regulatory Asset" above.**

Incurrences are Binding,

(6) A failure to implement the Treasury Plan will not impair the pass-through of the deferral amounts or the validity of an otherwise valid funding obligation.

- **NOTE: Separate from the legislative provisions, we will also be preparing a very rough sketch of some of the items that might be included in the Treasury Plan direction.**
- **The sketch will be for illustration purposes only and will be for use in discussions with stakeholders including OPG and IESO.**

Crown bound, actions prohibited,

A.3 (1) No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections – *[NTD: alternative* - Crown bound, prohibition against discriminatory action.

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(2) The Province will be prohibited from taking or permitting any action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or collections.

Undertaking and Agreement

(3) Under this Undertaking, the Province will agree for the benefit the OPG Financing Entity that it will not impair the value of the Regulatory Asset or the Transition Charges imposed under this Part. This "pledge" is in line with market expectations. Enforcement issues arise in this sort of undertaking, which will be assessed by the market and rating agencies based on the likelihood that a failure by the Province would lead to a successful damages claim. Unlike in the U.S., the law regarding such a claim is uncertain. Nevertheless, we expect that this sort of Undertaking will be requested in the legislation itself (i.e., requiring an act of the legislature to disavow – which is a higher bar than simply walking away from a contractual undertaking.

[Note: TBD where to place this Part within the Act and how to structure this Part. Temporary number (e.g. A1, A2, A3 etc.) has been used for now.]

FINANCING ENTITY

Financing Entity, established or prescribed

A1. (1) For the purpose of accomplishing the hydro financing initiative, the Minister may,

(a) direct Ontario Power Generation Inc. to establish and operate a trust; or

(b) direct Ontario Power Generation Inc. to [oversee? Administer?] an entity prescribed by the regulations.

[Note: Would the direction of the Minister include any additional instructions re timing etc.?]

Duty of Ontario Power Generation Inc.

(2) Ontario Power Generation Inc. shall comply with the direction of the Minister.

[Note: Once OPG takes action under A1 in accordance with the Minister's direction, what happens if at some point in the future, the Minister wants a different entity to take over the role of the FE? Is this a concern that needs to be addressed?]

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Object of Financing Entity

A2. (1) The object of the Financing Entity is to finance the amounts required to accomplish the hydro financing initiative.

[Note: We are imposing several obligations on the Financing Entity (FE). As a practical matter, how will these obligations be enforced? Who will be responsible for meeting these obligations? (e.g. would there be directors or officers of the trust?). Or will the OPG be responsible for meeting these obligations as the body that establishes/manages the trust or oversees the designated entity?]

Activities

(2) To achieve the object, the Financing Entity shall engage in the following activities:

[Note: Just want to confirm that this should be "shall" and not "may".]

1. Borrowing funds from the Financial Corporation or from such other persons or entities [as may be prescribed?].

2. Investing funds.

3. Making payments and loans to the IESO or such other entity as may be prescribed in accordance with the regulations [or an order of the Board].

[Note: I think it would be best to specify whether the rules would be set out in a reg or in a Board order to avoid confusion.]

[Note: Should the "loans" language be removed, since you noted that the IESO is not "borrowing" from the FE?]

4. Receiving payments from the IESO or such other person or entity as may be prescribed in accordance with the regulations.

5. Issuing securities or debt ***[in the manner prescribed?].***

6. Engaging in any activities, including entering into such transactions, agreements or arrangements as may be prescribed and in accordance with the regulations.

Board review of expenditures, etc.

A3. (1) The Financing Entity shall, at least 60 days after the end of each fiscal year, submit its expenditures relating to its operations for the fiscal year including the expenses it has charged to Ontario Power Generation Inc. or the IESO, or that it has been charged by the Financial Corporation, in relation to those operations, to the Board for review.

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[Note: The list of items that have to be reported on could be more prescriptive (e.g. specifying specific amounts to be set out) or it could also allow for the Board to specify what it wants to see in the report. Let me know if you'd like to adjust the wording of the requirement.]

Board recommendations, etc.

(2) The Board may review the expenditures and charges referred to in subsection (1) and make recommendations to the Financing Entity as are appropriate in order to ensure the most efficient operation and management of the Financing Entity in order to protect consumers.

[Note: Rather than saying "in order to protect consumers", should this say "in order to achieve the object of the FE"? Or perhaps this could just be deleted altogether with no need for replacement language.]

Deemed assets, entity,

A4. Despite any other provision of this Act or the *Business Corporations Act*, the assets and liabilities which are resident in and form part of the property of the Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries for any purpose.

[Note: You posed a question about excluding an OPG subsidiary from this rule. Please instruct.]

OBTAINING FINANCING

[Note: It will be important to read all of the provisions that follow against the provisions in the existing Act, to ensure there is no overlap/confusion being created due to potential interactions between existing authority and new authority. The drafting focus so far has just been to get the relevant substantive provisions into the draft without evaluating how they fit into the broader scheme of the Act.]

Ontario Power Generation Inc. to obtain financing

A5. (1) The IESO may direct Ontario Power Generation Inc. to cause the Financing Entity to engage in any of the following activities in order to accomplish the hydro financing initiative:

[Note: As a practical matter, how would OPG "cause the FE" to do these things? How is this different from "directing"?]

1. Financing, borrowing or lending to provide the IESO with short-term or long-term financing.

2. [Purchasing/receiving/obtaining the right created under section XX] and making any payments to the IESO that relate to the IESO's activities in support of the hydro financing initiative.

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[Note: Not sure if the regulated assets would always be "purchased" or if other terminology might be needed. Please advise.]

3. Collecting from the IESO amounts that the IESO is required to pay in relation to its activities in support of the hydro financing initiative.

4. Assigning its [the IESO's?] rights to all or part of the regulatory assets established under section XXXX.

[Note: What is para. 4 about? If this is about forcing OPG to make the FE do things, then does this belong in the list? I thought that it was only the IESO that would be assigning the rights to the FE]

5. Such other activities as may be prescribed.

Same

(2) Ontario Power Generation Inc. shall comply with a direction under subsection (1) within the time specified in the direction [and any prescribed rules?].

IESO to enter into transactions

A6. (1) The IESO shall, in order to support the achievement of the hydro financing initiative, enter into transactions with the Financing Entity or any other entity for such amounts as are necessary to support the hydro financing initiative.

[Note: My understanding is that the need for "or any other entity" stems from the need to allow for the IESO to obtain temporary financing in the immediate term, before it is able to access the FE. Do you want to narrow this so that the IESO is only authorized to do this before the FE is up and running? Or do you want to keep it available on an ongoing basis?]

Same

(2) In entering into transactions under subsection (1), the IESO shall comply with the regulations.

RIGHT OF RECOVERY [CREATION OF REGULATORY ASSET]

[Note re the following provisions:
I found a provision dealing with the concept of "regulatory asset" in Bill 210 from 2002 (see s. 79.13 of the OEBA). It deems certain things to be regulatory assets but does not say much more. On the phone, you noted that the term "regulatory asset" does not have any legal meaning on its own but is just an accounting term that has been used to describe the statutorily created right of recovery. However, you also said that there may be a need to use this term in order to convey the intended meaning from an accounting perspective.

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In order to ensure that the drafting captures the policy intent, please answer/address the following questions:

1. Should we be creating a statutory right of recovery or deeming certain amounts to be a regulatory asset? [NTD-LSB: Yes. The term "Regulatory Asset" has currency in commercial law (parliance) and since much of what we're doing is to support a securitization model, the term should remain for now. Further, the term "regulatory asset" was consistently referred to in the documents provided to ENERGY LSB by Blakes. Further, IESO/Stikemans offered up alternative language for the creation of a "regulatory asset" (as an intangible asset of sorts). You said you'd consult on whether the regulatory asset terminology is important to flag in the Bill.

2. You said you're not sure whether or not the Act will require the IESO to sell/assign the right. Please instruct. If it is optional for the IESO to sell/assign, then it seems that the right could in theory remain with the IESO (unless you are saying that the statute can just create the right of the FE to recover without any need for the right to be assigned/sold by the IESO… in which case please explain why we need to deal with the sale/assignment at all). Please clarify.

3. I'm assuming that if we are creating a right, then the right must be held by someone (e.g. the IESO) before it can be assigned/sold? So should the right be created in the Act for the IESO (e.g. the IESO has a right to recover the amounts from distributors and prescribed consumers) since the IESO would then sell/assign/transfer the right to the FE? The FE must also have the right to recover from the IESO itself, so that creates an extra complication.

4. Should there be some indication of when the right of recovery/regulatory assets will no longer continue to exist (e.g. once all of the amounts have been paid?). I notice that your instructions below about the debt indicate that the debt is no longer owing once the amounts are paid, but do we need to indicate that the regulatory asset also ceases to exist at that point?

Right of recovery created

A7. A right to recover the following amounts in full from the IESO, distributors and prescribed consumers is created.

1. The [deferred amount].

2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.

[Note: How will the Board be approving these costs? Is this related to the expenditure report submitted to the Board? That provision dealing with Board expenditures doesn't refer to any approval taking place… just a review and recommendations.]

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[Note: Need to mention expenditures?]

3. Other amounts as may be prescribed or as may be approved by the Board.

Note: Are you going to be saying anything about how the interest will be calculated?

Sale [and/or?] assignment of [right? Regulatory assets?]

A8. (1) The IESO [may? Shall?], in accordance with the regulations, sell [and/or?] convey to the Financing Entity the right to recovery created established under section A7 on such terms and conditions as are provided for by the Financing Entity.

[Note: Your instructions include the terms "sell", "assign" and "convey" -- which are correct?]

[Note: Your instructions suggested that something other than the "regulatory assets" may need to be assigned to the FE. Are you referring to the "warehousing" liabilities assumed by the IESO in the early days? What else would need to be assigned? Could these items be listed above in A7 or is there a reason why they need to be kept separate?]

Sale deemed final

(2) The sale and conveyance referred to in subsection (1) is deemed to be final for all purposes.

[Note: What is this intended to achieve? Is this based on precedent language that has been interpreted to have the desired effect?]

Debts

(3) For greater certainty, the [amounts to which the FE has a right of recovery] are debts owing by the IESO, distributors and prescribed consumers to the Financial Entity until the amounts have been fully paid and fully discharged.

[Note: Why is subs. (3) necessary? Isn't it inherent in the sale of the regulatory assets that the FE would have acquired the future right to collect these amounts? Perhaps it is unclear that the amount can be collected from not just the IESO but from others down the chain. But isn't that what the "right of recovery" section above is meant to cover?]

[Note: I haven't checked to see how other similar provisions dealing with debts are drafted. Not sure we need the "for greater certainty" and also not sure what the distinction is between "fully paid" and "fully discharged". This provision will need further consideration. You also noted that you may want to specify who determines when all obligations have been satisfied.]

IESO to recover amounts

A9. The IESO shall recover the amounts set out in section A7 from distributors and prescribed consumers, in accordance with […]:

Note: how are the requirements that would determine recovery for this subsection meant to interact with the GAM reg?

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[Note: The following two subsections are placeholders. You noted that *the provision is going to have to evolve to deal with consumers who exit the grid (disconnect) completely either because they leave the province or they decide to generate their own electricity and completely disconnect. You also want to be able to prescribe* methods of ensuring that the amounts required cannot be "by-passed". I'll need to understand what is meant by "by-passed".]

Distributors liable

(x) The IESO and distributors are entitled to compensation for any shortfall in relation to the amounts the IESO must pay to generators, the Financial Corporation or other persons including prescribed persons, under section 25.33 resulting from the IESO's activities under the hydro financing initiative.

Consumers liable

(X) Prescribed consumers are required to contribute towards the amount of any compensation referred to in subsection (4) in accordance with the amounts and methods prescribed by the regulations and such amounts shall not be by-passed.

USE OF FUNDS TO REDUCE ELECTRICITY BILLS

[Note: Depending on how things land with s. 25.33, this might be a place to explain how the transactions between the IESO and the FE translate into reduction in the electricity bills of RPP consumers. Regulations could specify how the IESO would ensure that the short-term rate reductions that flow from the FE amounts are only received by the targeted class of consumers and that this same class of consumers is the only class responsible for the repayment of FE funds in the long-term.]

ALTERNATIVE LANGUAGE – REGULATORY ASSET -- PROPOSED BY IESO (STIKEMANS)

Regulatory Asset Created

A7. (1) There is hereby created and conferred upon the IESO a "Regulatory Asset" consisting of the right to recover, in addition to the amounts otherwise recoverable, in accordance with the Regulations, the aggregate of the following amounts [from distributors and] prescribed consumers. **[Quare: do we regard the Regulatory Asset as a single asset in a variable amount or as different assets arising on each deferral]:**

1. The [deferred amount, including interest accrued thereon].
2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.
3. Other amounts as may be prescribed or as may be approved by the Board.

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(2) The Regulatory Asset created by (1), shall constitute, for all purposes, a property right, shall be transferable by the IESO in accordance with Section A8, and shall constitute an intangible in which a security interest can be created for purposes of the *Personal Property Security Act*.

Election to Transfer Regulatory Asset

A8. (1) The IESO shall, from time to time, in accordance with the Regulations, elect to transfer to the Financing Entity all or any portion of the Regulatory Asset, on such terms and conditions as IESO may determine.

(2) Upon any election by the IESO pursuant to (1), the Financing Entity shall pay to the IESO in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, an amount, not less than the Deferred Amount, determined in accordance with the Regulations.

(3) Upon any election by the IESO pursuant to (1), the Financing Entity shall become the person entitled to the benefit of the Regulatory Asset, or the portion thereof in respect of which the election was made, free and clear of any adverse claim (other than any such claim created by the Financing Entity) and shall be entitled to exercise all of the rights and remedies conferred by or arising in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the IESO shall cease to have any rights (except as provided in Section A9) to or in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, all as if the Regulatory Asset, or the portion thereof in respect of which the election was made, had originally been conferred upon the Financing Entity and not the IESO.

(4) Upon any election by the IESO pursuant to (1), the IESO shall have no further rights or obligations in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the Regulatory Asset, or the portion thereof in respect of which the election was made, shall not form part of the assets and liabilities of IESO for any purpose.

(5) The LG in Council may adopt regulations providing for the circumstances in which IESO shall make the election or elections provided for in (1).

Financing Entity may Grant Security Interest

A9. (1) The Financing Entity may, at any time after an election referred to in Section A8(1), create a security interest in favour of any person in all or any portion of the Regulatory Asset subject to such election, all on such terms and conditions as the Financing Entity may determine.

(2) Except as provided for in Regulations adopted pursuant to (3), *The Personal Property Security Act* shall apply to any security interest created pursuant to (1), except that the rights of the secured party on default shall be limited to receiving the amounts collected in respect of the Regulatory Asset, or the portion thereof subject to the security interest, as and when collected by the IESO in accordance with A10.

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(3) The LG in Council may adopt regulations providing for the terms on which the security interest provided for in (1) can be created and perfected and for the priority of any such security interest.

IESO to Collect Amounts in Respect of the Regulatory Asset

A10. Subsequent to any election pursuant to Section A8, the IESO shall, as agent on behalf of the Financing Entity and any secured party, use reasonable efforts to collect the amounts owing in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and shall promptly pay over to the Financing Entity or the secured party the amounts collected.

--------*END OF IESO/BLAKES ALTERNATIVE LANGUAGE FOR REG. ASSET ---*

------- ***BLAKES VERSION OF LANGUAGE FOR REGULATORY ASSET***

The Regulatory Asset, Composition,

A7(1) The "regulatory asset" consists of the following:

- **present and future statutory obligation of:**
  - **deferral consumers - to make all deferral repayments (including interest and late payment fees)**
  - **LDCs - to invoice the deferral consumers for the deferral repayments and to remit the amounts collected to the IESO**
  - **IESO - to receive and remit the deferral repayments from LDCs to the OPG Financing Entity**
- **All deferral repayment amounts collected**
- **All amounts in LDC or IESO deferral payment bank accounts**

Validity of Dispositions

(2) This section is reinforcing by statute the "sale" of the asset to the Financing Entity. This has been an important feature of the legislation in other jurisdictions in similar circumstances. Specifically, it says that "Dispositions" of the Regulatory Asset are "true sales", and not subject to challenge. This is an essential requirement for a securitization transaction. This provision identifies possible grounds for a challenge that a sale took place and indicates that those events do not affect the validity of the sale.

Deemed Perfection and Priority of Dispositions

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(3) This is reinforcing the automatic nature of the "sale" of the asset. It Provides for a clean sale to the OPG Financing Entity, free and clear of encumbrances (i.e., no specific need to "perfect" the sale.

Validity of Pledges,
(4) Statutory override permitting the OPG Financing Entity to give a security interest in the "regulatory asset" to investors.

> **This would give the investors (through an indenture) the right to enforce collection of the deferral repayments to pay off amounts owed by the OPG Financing Entity to the investors upon certain defaults by the OPG Financing Entity under an indenture.**

Deemed Perfection and Priority of Pledges
(5) This is reinforcing that a commercial pledge given by OPG Financing Entity is valid and will have priority without specific "perfection". The result is that a pledge of the Regulatory Asset as security in accordance with the Treasury Plan will be given priority to other claims. The Pledge includes proceeds from the Regulatory Asset and is not affected by comingling or the ordinary requirement to file a financing statement under the PPSA.

Enforcement of Property Rights –

(6) The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5. *[ntd-: NOT an annotation – pulled directly from Blakes' document.]*

Collective Action Required –
(7) This anticipates that the Regulatory Asset will be structured as a variable interest that can be divided between IESO (until it sells) and one or more OPG Financing Entitys. The likely format will be a co-ownership agreement, that will allow for different owners to have a fractional undivided ownership interest in the Regulatory Asset. Those will entitle the owners to a specified share of the cash flows, which will correspond to their finance payment obligations. This will allow for future financing flexibility.

MISCELLANEOUS

Fair Hydro Financing Plan, miscellaneous,

A.8 (1) Consideration will be given to whether any additional 'miscellaneous' provisions are needed (and expected by the market) to support the financing of this

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structure. Some of these provisions are not typical in legislation, and so will need further consideration (in consultation with leg counsel).

Regulations

114(1.5) The LGIC may make regulations to implement the Fair Hydro Financing Initiative

-(a) The power to implement the program (and to set out some of the details of the program) through regulations is important. Decisions remain to be made (once the drafting is a little further advanced) about what provisions/details need to appear in the proposed legislation, and what provisions/details can be set out in regulations.

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ONTARIO ENERGY BOARD ACT, 1998

x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [hydro financing initiative].

[Note: Would need to link with definition in the EA or else spell out the definition here - TBD.]

x. Section 27.1 of the Act would be amended by adding the following paragraph:

Hearings

(1.1) A directive may specify whether the Board is to hold a hearing, the circumstances under which a hearing may or may not be held and, if a hearing is to be held, the type of hearing to be held and the time within which it must be held.

The underlined is what makes this different from the other provisions in the Act that basically have the same wording. There are already a number of places in the Act where you have this type of hearings provision re directives (e.g., s. 27.2 (7)). If you basically want the same authority in each instance, then the wording should be consistent in each case. There are already some discrepancies between the current provisions (e.g., s. 27.2

(7) talks about types of hearings, whereas s. 28 (2) doesn't). Differences in wording will typically be presumed to be differences in meaning. So, the question is what you're intending to authorize in each case, and whether differences are intended. If you want the same thing everywhere, it should all be worded the same. Let me know.

[Note: Waiting for confirmation whether amendments to s. 78.7 are needed. Please advise.]

x. Section 78 of the Act would be amended by adding the following subsection after subsection (3.0.5):

Rates, fair hydro financing initiative activities -IESO, OPG, distributors, etc.
(3.0.6) The OEB would not be precluded from taking into account the performance of duties under this Part by any entity regulated by the OEB, including fees received by such entity in excess of the incremental costs of the provision of such services.

x. Section 79.16 (3) of the Act would be repealed and the following substituted:

Adjustment to eliminate variances

(3) In determining rates under clause (1) (b), the Board shall take into account balances in variance accounts established under section 25.33 of the *Electricity Act, 1998* and, subject to section X of that Act, make adjustments with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct.

[Note: Please let me know what section the highlighted portion is supposed to refer to… is it the provision that says the IESO has the 30 year period to pay off the amount in the variance account for the hydro financing initiative? I wonder if this is confusing and whether the amendment to subs. (3) above works… it almost seems unnecessary to say that the Board has to "take into account" this balance, given that we are setting up a bunch of very specific rules about what has to be done by various entities in order to eliminate this amount. What would the Board be expected to do with information about this variance account? For consideration.]

PART VII.3

COMPLIANCE – FAIR HYDRO FINANCING INITIATIVE

Right of the [OEB] to Inspect Books and Records,
113 (1) OEB may be given the power to investigate compliance with the legislation and the power to examine books and records, etc.

Power to Investigate Compliance and Impose Regulatory Sanctions

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(2) This legislation will not limit the OEB's power to investigate compliance or prevent or preclude the OEB's power to impose sanctions. The OEB can investigate compliance with this part and to impose regulatory sanctions for non-compliance.

Limitation, Board,

(2.1) The OEB cannot, however, take any action to affect the irrevocability of the Transition Charges or the Undertaking of the Province.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

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From: John Kim
To: John Kim
Subject: Price Mitigation
Date: Monday, April 03, 2017 6:41:17 PM
Attachments: External - Draft 5 Annotated (Blks DS) GOV2016.146.e05 (April 3 2017).pdf

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Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

A proposal to create Legislation.

Fair Hydro Plan Act, 2017, if enacted

EXPLANATORY NOTE TO BE ADDED BY LEGISLATIVE COUNSEL TO ANY FINAL BILL PRIOR TO INTRODUCTION.

[Insert explanatory note.]

ELECTRICITY ACT, 1998

1. (1) Section 1 of the *Electricity Act, 1998* would be amended by adding the following clause:

[Note: GGRA provisions have been removed for now. Please confirm if they should be re-inserted.]

(2) Clause 1 (f) of the Act would be struck out and the following substituted:

(f) to protect the interests of consumers with respect to the adequacy, reliability and quality of electricity service;

(f.1) to protect the interests of consumers with respect to the prices they pay for electricity, including protection of those interests through the Hydro financing initiative;

[Note: Since the Hydro financing initiative is a defined term and is clearly required to be implemented under the new substantive provisions of the Act, I'm still not sure why this needs to be addressed in the purpose clause. However, I have included a purpose provision as per your instructions.]

Article 1 – Purpose

The proposed new legislation will likely include a large number of provisions intended to support the "financeability" of the structure. As a result, it may make sense for (LSB is exploring the potential) the Bill to create a new stand-alone energy statute, much like the *Green Energy and Green Economy Act, 2009* created the *Green Energy Act, 2009*.

The new legislation would have a purpose clause that explains the objective of intergenerational fairness. This would be useful for the markets to see, and may

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help support the validity of the legislation from a constitutional law perspective (charge vs. tax)

x. Subsection 2 (1) of the Act would be amended by adding the following definitions:

"Financing Entity" means the trust established by Ontario Power Generation Inc. under clause XX (a) or the entity prescribed for the purposes of clause XX (b); ("French")

"hydro financing initiative" means those policies of the Government of Ontario related to its decision to ensure costs to Ontario electricity consumers are allocated fairly over time, taking into account the useful life of new sources of and technologies for electricity; ("French")

[Note: I have applied the precedent of the "smart metering initiative" as per your instructions. Just want to reiterate my concern that the reference to government policies is really vague (which initiative/ policies? At which point in time?) and I think this could cause lots of confusion, particularly if the policies evolve over time. It could also have unintended consequences.]

[Note: To consider -- by describing the initiative as we have in the above definition, we are potentially linking the deferred amount to amounts that would otherwise be paid for by consumers as part of the GA. If the deferred amounts are not all about "the useful life of new sources and technologies" then the description of the initiative should likely be broadened. (For example, if some of the deferred amount may be used to cover high wholesale prices, one could argue that the initiative is NOT about allocating costs fairly over time… it's just about pushing the cost increase to future consumers without considering what is "fair" across the generations.]

Article 2 - Definitions

The new legislation will include many new defined terms. One important term will be "Funding Shortfall" (or equivalent wording). This will be the net reduction in cash flows to IESO as a result of the reallocation of a portion of the Global Adjustment to later periods of time. Currently, the "Funding Shortfall" would be limited to the Global Adjustment attributable to the procurement contracts, but this is a question that still has to be settled.

Another important defined term that is worth noting is "Replacement Event". This is an event under which the market would want to replace a person who has responsibility to take essential actions under the program (including LDCs, IESO and OPG), like invoicing and collecting amounts.

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The triggering events are likely to include insolvency and breach of duty/obligation.

Another key defined term is "Transition Charge". This is the amount that will be calculated and applied to the "deferral consumers", based on the amounts of payments due under funding obligations incurred to cover the funding shortfall (i.e., what we have until now been calling "deferral repayments").

Another important defined term will be "Treasury Plan". This will be the written plan prepared by OPG relating to the sale of the "regulatory asset(s)" to the OPG Financing Entity (sometimes previously referred to as the "Financing Trust") and the debt issued by the OPG Financing Entity to the markets.

Another defined term will be "True-up Amount". This is a key provision for the market. It allows for a catch-up for estimate/actual adjustments and to address consumer non-payment credit losses.

A further defined term will be "Undertaking of the Province". This will be a promise by the Government not to impair the program. This will be expected by the market, even though it will be understood that there may be issues for investors to enforce the promise, or get damages if there is a breach.

x. (1) Subsection 6 (1) of the Act would be amended by adding the following clauses:

(q.1) to enter into agreements or arrangements with the Financing Entity;

(q.2) to engage in activities related to making payments to and receiving payments from the Financing Entity under Part V.2, as required under this Act, and to engage in related settlement activities;

Note: Is some of this covered already by clause (i)? Could we address this by expanding upon clause (i)? Trying to understand whether there is any potential overlap.]

(q.3) to engage in activities related to the [sale/disposition/conveyance/assignment] of the [right/regulatory asset] created under section XX, which activities may include,

[Note: As discussed, please confirm terminology.]

(i) incurring liabilities in relation to the [right/asset];

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(ii) [selling/assigning/disposing of?] the [right/asset] to the Financing Entity;

(iii) assigning [the right/asset] to third parties;

[Note: I don't understand (iii) -- I thought the rights to the asset were being assigned to the trust and nobody else?]

(q.4) acting as a recovery agent for the Financing Entity in relation to [the right/asset];

x. (1) Subsections 25.33 (1) and (2) of the Act would be repealed and the following substituted [TBD].

[Note: As per our telephone discussion today (March 27), there seems to be ongoing debate about the policy direction:

1. Do you want to amend the GAM so that the money received from the FE and the money recovered by the FE are part of the initial GA calculation?

2. Do you want to leave the GAM section as is and add a requirement (in a new section) for the IESO to conduct additional adjustments for a subset of the payments referred to in s. 25.33? This second adjustment would be engaged in after the existing GAM is calculated. So it would be a further adjustment of what has already been adjusted under the GAM.

Until this fundamental question is answered, we would be removing the proposed amendments to s. 25.33.]

OPTION 2:

Deferral adjustments, 25.33 amounts.

25.33.2 (0.1) For the purposes of this section and sections 25.34 and 25.35,

(a) "authorized entity" means **[the hydro financing trust established by Ontario Power Generation Inc. for the sole purpose of financing the recovery of the balance in the deferral account, or]** such **[other]** entity as may be prescribed by regulation;

(b) "deferral account" means the deferral account established under section 25.34;

(c) "deferral amount" means the amount recorded in the deferral account for each month during the deferral and recovery period;

(d) "deferral and recovery period" means the period from May 1, 2017 to April 30, 2047;

(e) "deferral consumer" means a consumer who is a member of a class of consumers prescribed by the regulations for the purposes of sections 25.34 and 25.35;

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[NTD: This will be set out in a new subection 4(3) of O. Reg. 95/05 and will reflect OREC-eligible consumers other than non-grid connected customers of IPAs (who would not pay a GA charge anyway). Note that this is not quite the same as "RPP-eligible" consumers.]

(f) "electricity supply cost" means the amount calculated according to the formula:

(A + B + C + D) - E

where,

A is the amounts paid by the IESO to generators, the Financial Corporation and distributors, whether the amounts are determined under the market rules or under section 78.1, 78.2 or 78.5 of the *Ontario Energy Board Act, 1998,*

B is the amounts paid by the IESO to entities with whom the IESO has a procurement contract, as determined under the procurement contract,

[NTD: A and B use exactly the same wording as is set out in (a) and (b) of the existing ss. 25.33(1).]

C is

[NTD: C is the "net new" costs associated with the GA deferral. These are costs that the IESO will record in the GA deferral account established under s. 25.34, and that the IESO (or its assignee) will subsequently recover. These costs consist of the interest and financing-related admin costs associated with the GA deferral (which costs will be flowed through from the hydro financing trust to the IESO). These costs do not include the principal amount deferred and recovered, since that is already captured as part of A and B.

The "net new" costs in C will be recoverable solely from a newly prescribed class of consumers - deferral consumers (i.e. those consumers who will benefit from the GA deferral). The rules for the recovery of these costs will be part of a new subsection 4(3) of the RPP Regulation.]

D is any other amounts that may be prescribed by regulation,

[NTD: Paragraph D would give us flexibility to add new cost categories by reg. if/as needed now or later.]

[GGRA-related amendments are removed for the time-being]

and

E is any other amounts that may be prescribed by regulation;

[NTD: Paragraph E would give us flexibility to add new cost categories by reg.

Question for leg counsel: If in the future HOEP were to exceed contract prices and/or regulated rates, presumably the formula would still work (i.e. in such case the amounts for A and B would simply be negative amounts)?] ***[ntd-LSB: IESO appears to agree with that idea, based on our shared appreciation of how EA s.25.33 works today.]***

(f) "reduction period" means the period commencing May 1, 2017 and ending April 30, 2018;

(g) "RPP Regulation" means Ontario Regulation 95/05 (Classes of Consumers and Determination of Rates).

Electricity pricing adjustments

Adjustments by IESO

(1) The IESO shall, through its billing and settlement systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of market participants in Ontario as are prescribed by regulation, reflect the electricity supply cost.

Adjustments by distributors and retailers

(2) Distributors and retailers shall, through their billing systems, make adjustments in accordance with the regulations that ensure that, over time, payments by such classes of consumers in Ontario as are prescribed by regulation, reflect the electricity supply cost.

[NTD: There will be two "classes of consumers in Ontario that are prescribed" for the purposes of RPP-"plus" deferral – the EA regulation that "prescribes" these two classes will refer to (or be aligned with) the two classes as described in the RPP Regulation. 1) The first class are the deferral consumers (see definition above), and 2) the second class (or defined base consumer) will be the "proxy" Toronto Hydro consumer whose bill will only be allowed to increase year-over-year according to rules prescribed in a new s. 6.1 of the RPP Regulation.]

Variance accounts

(3) The IESO shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by it under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation. *[ntd-DAN: I left "this section"*

even though this provision is part of a new s.25.33.2 – did you want "this section" to refer to "section 25.33"? If so, then we'd add this to the list we've started referencing proposed new s.25.34 and s.25.35. Consider.]

[Drafting note: We can prescribe the different variance accounts that must be maintained, and the different amounts that must be tracked and accounted for, by the IESO. Among other things, the IESO will presumably need to establish variance accounts related to the GA deferral and payback, to take into account timing and other differences. Any financing costs associated with these variance accounts (over and above the financing costs passed through to the IESO by the authorized entity (the hydro financing trust) would be subject to Board scrutiny.]

Same, distributors and retailers

(4) Distributors and retailers shall, in accordance with the regulations, establish and maintain such variance accounts as may be necessary to record all amounts payable or receivable by them under this section and under sections 25.34 and 25.35, in accordance with such rules and requirements as may be prescribed by regulation.

x. The Act would be amended by adding the following sections:

Deferral account

25.34 (1) The IESO shall establish a deferral account to record, for each month during the reduction period and the deferral and recovery period, the difference between,

(a) the amounts that would be payable by deferral consumers in respect of the electricity supply cost for the month under section 6.1 of the RPP Regulation; and

(b) the amounts payable by deferral consumers in respect of the electricity supply cost for the month under section 6.2 of the RPP Regulation.

[NTD: IESO to confirm whether the differences between (a) and (b) would be recorded monthly.

Explanatory note: The Board will determine a rate under a new s. 6.1 of the RPP Regulation that will essentially follow the same process the Board uses to establish the RPP rate, except that it will establish a rate for the deferral consumers (which is a slightly broader class than RPP consumers). The Board will also determine a "proxy" rate for the deferral consumers, calculated according to a different set of rules set out in a new s. 6.2 of the RPP Regulation. The rules in s. 6.2 will establish the "proxy" rate for a "proxy" Toronto Hydro customer consuming an average of 750 kWh/mth, to achieve an all-in tax-included total bill amount reduction of approximately 17% (the bill reduction for GA deferral + 8% OREC will result in an all-in bill reduction for May 1, 2017 – April 30, 2018 of 25% over the May 1, 2016 – April 30, 2017 period). There will be

additional rules dealing with bill increases and full repayment of the GA deferral by April 30, 2047.]

Note that because we refer to the new provisions in the RPP Regulation, we will need to amend that regulation *before* the introduction of the proposed legislative amendments. Drafting of the proposed RPP Regulation amendments is underway.

Do we need to create a parallel provision requiring distributors and retailers to establish deferral accounts as well?]

(2) The IESO shall record interest on the balance of the deferral account at a rate or rates reflecting the costs incurred by the IESO, or by any assignee under section 25.35, to finance the amounts recorded in the deferral account.

(3) The IESO shall also record in the deferral account the costs incurred by the IESO to finance the amounts recorded in the deferral account.

[NTD: This is a placeholder for what we will need here. The concept is that ss. (2) and (3) will ultimately apply to the interest and admin costs incurred by the hydro financing trust (assignee of the right of recovery under s. 25.35) in providing funds to the IESO to finance the GA deferral. Those interest costs and admin costs will be fully recoverable through section 25.35, subject to Board scrutiny presumably limited to verifying the calculations. This is not intended to address interest and costs incurred by the IESO and recorded in the variance accounts established under ss. 25.33(5).]

Recovery of GA deferral amounts

25.35 (1) The IESO shall have the right to fully recover the balance recorded in the deferral account. **[The Board shall authorize?]** recovery of the balance from the deferral consumers over the deferral recovery period in accordance with the prescribed rules.

[NTD: What role should the Board play in determining the amounts recovered each year (within the smoothing parameters that are prescribed)? For e.g., could the Board set rates such that the year-over-year increase in the proxy Toronto Hydro customer's all-in bill was less than the maximum permitted under the prescribed rules?

The prescribed rules will be set out in the new s. 6.2 of the RPP Regulation, which will determine how much the "proxy" Toronto Hydro customer's monthly average bill can increase year-over-year (after the reduction period). Basically, for the first four years after the reduction period, the increase will be limited to CPI. For the balance of the deferral and recovery period, the increases will be limited to 10%, with an overarching requirement that the deferral amounts be fully repaid by April 30, 2047.]

Assignment of right of recovery

(2) The IESO shall have the right to assign**[, in whole or in part?,]** to **[one or more?]** authorized entities, the IESO's rights under subsection (1).

[NTD: This is largely a placeholder for what needs to be addressed here. We will need to determine how to characterize this transaction. For e.g., will it be an outright assignment? Will it be a series of assignments? Should it be characterized as a "sale"? How will this transaction be implemented – e.g. by way of a contract between the IESO and the Trust? We will need the input of external counsel and others to ensure that it adequately supports the contemplated financings.]

Payments to assignee

(3) In the event of an assignment to an authorized entity under subsection (2), the IESO shall, through its billing and settlement systems, make payments to the authorized entity of the full amounts paid to the IESO in respect of the rights assigned.

[NTD: This is largely a placeholder for what needs to be addressed here. Iin addition to requiring IESO to make payments to the authorized entity, do we need to include explicit provisions giving the assignee the right to recover the amounts in the deferral account that are covered by the assignment?

We will need provisions dealing with billing and payment as between the authorized entity and IESO. We will also have to decide whether the interest and admin costs incurred by the authorized entity will simply be passed through to IESO, or whether the authorized entity (or OPG) will have an opportunity to keep any profits made on financing activities (swaps, etc.) by establishing some sort of "reference rate" that IESO would have to pay (and that might be different than the rate(s) the authorized entity would have to pay). A middle ground that could be considered would be to cap the amount of profits the authorized entity (or OPG) could make.

Along similar lines, the amounts charged by OPG to the authorized entity to provide admin services should be subject to Board review (e.g. for reasonableness). This would not jeopardize the ability of the authorized entity to recover all of its costs (since it would affect the amounts OPG could recover from the authorized entity).

We also need to contemplate a provision that if there is a change of law by the Government of Ontario that materially adversely affects the ability of the authorized entity to fully recover the assigned deferral account amounts, then repayment of those amounts will be accelerated and become immediately due and payable.]

x. The Act would be amended by adding the following provisions after s.29:

Transition Charges -- Ratepayer Obligation to Pay a Transition Charge

s.29.0.1 (1) Each consumer in the class of ratepayers to which this program applies (previously referred to as the "deferral consumers") will have a direct statutory obligation to the OPG Financing Entity to pay its share of the deferral repayments (principal, interest, financing costs).

Indebtedness of Ratepayers –
(2) This will be a debt owed by the consumer directly to the OPG Financing Entity. If it is not paid, the OPG Financing Entity can sue the consumer directly through the agreed procedures. This is identifying an explicit and identifiable revenue stream for the comfort of investors.

Separate tracking - distributors,
(3) This debt is separate from the debt owed by the consumer to its LDC, although the LDC will be the collection agent.

No set-off, etc. ***[see similar provision at EA s.29.0.3(2)]***
(4) This debt cannot be netted out against any amount owed by the LDC to the consumer (e.g. year-end credit to consumer on equal monthly billing).

Allocation of Ratepayer Payments
(5) If a consumer pays less than its total invoiced amount, the payment will be allocated pro rata between the deferral repayment and the amounts owing to the LDC.

Transition Charges are Irrevocable

(6). This is intended to prohibit any reversal of amounts that must be paid to meet the terms and conditions of the funding obligations to be incurred under the program.

> **The deferral repayments are due regardless of whether a financing obligation incurred under the treasury plan is consistent with government policy at the time a related payment obligation arises.**
>
> **If the Fair Allocation Plan is amended after a funding obligation is properly incurred, any inconsistency in the payment profile will not impair the existing funding obligation or the pass-through of related payment amounts as Transition Charges.**

Anti-avoidance; No-by-pass

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(7) The idea here tracks the U.S. transactions, which say that the obligation of a consumer to pay Transition Charges cannot be "by-passed". If a consumer leaves the grid, he or she will still be obligated. See the highlighted text in the definition of "Ratepayer" for a sense of how this may be accomplished.

> **This concept is a key to a rated market financing and will need to be developed further.**
>
> **For example, self-generating customers could be charged a flat fee (for example, equal to the amount that would be payable by the "representative" Toronto Hydro customer that underpins the current government policy on the 25% or some other basis.)**

Distributor, agent for Financing Entity,
s.29.0.2(1) LDC is agent for the OPG Financing Entity. LDC must invoice the deferral consumer the deferral repayment amount - referable to the items described in "Finance Amount" (i.e., an amount already borrowed).

IESO - Calculation of the Period Transition Charge

(2) IESO will calculate the total amount of deferral financing that will be repayable in an applicable [e.g. 6 month] period.

(3) IESO will then determine the deferral repayments due from deferral consumers based on a prescribed methodology for allocating payments to individual deferral consumers.

Notice of Transition Charges, IESO to distributors

(4) IESO will then inform each LDC of the amount of the deferral repayments to be included in the invoices issued to each deferral consumer in the LDC's service territory.

Adjustments *[ntd: Consider – Deferral repayment amount final]*

(5) Deferral consumers cannot challenge the amount of the deferral repayment showing on their invoice unless there is a substantial calculation error.

Successors of Electricity Distributors –
(6) Any successor of an LDC will be bound by the same obligations as the original LDC re: billing and collecting deferral repayments.

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Successors of IESO –

(7) Any successor of the IESO will be bound by the same obligations as the original IES re: billing and collecting deferral repayments from distributors *[ntd-LSB: what about from consumers?]*.

Appointment of an Alternative Invoicing Agent *[NTD – this provision may be moved closer to the powers/authorities of the OPG financing entity.]*

(8) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect deferral repayments. The LDC must sign whatever agreements and assignments are needed to enable the replacement agent to collect the deferral repayments from the LDC's deferral consumers.

Regulatory Asset Owner has Standing

(9) The OPG Financing Entity (or investors through their security) will be able to sue LDCs for failing to properly calculate or invoice the financing repayments.

29.0.3 Collections and Remittances [Collecting and Remitting Deferral Repayments]

(1) If a "replacement event" (as defined in any payment obligation incurred to fund a deferral) occurs in respect of an LDC or the IESO, the OPG Financing Entity can appoint someone else as the OPG Financing Entity's agent to collect and remit deferral repayments. The LDC (or IESO, as applicable) must sign whatever agreements and assignments are needed to enable the replacement agent to collect and remit the deferral repayments. "Replacement Events" are necessary to investors to safeguard against a person holding money in a distressed circumstance.

No Set-off, etc. *[see similar provision at EA s.29.0.1(3)]*

(2) The deferral repayments cannot be netted out against any amounts owed by the party responsible for collecting those repayments.

Sequestration,

(3) If any LDC or the IESO fails to remit deferral repayments, the OPG Financing Entity can get a court to order the LDC (or IESO, as applicable) to require them do so.

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x. Subsection 53.1 (1) of the Act would be repealed and the following substituted:

Objects of Ontario Power Generation Inc.

53.1 (1) The objects of Ontario Power Generation Inc. include, in addition to any other objects, the following:

[Note: I know that the words "in addition to any other objects" appears in the current provision, but it seems very odd. This suggests that the objects are unlimited, which doesn't seem to be the intention but I could be wrong.]

1. Owning and operating generation facilities.

2. Establishing, operating and supervising the activities of entities for the purposes of supporting and promoting the government's hydro financing initiative.

3. Providing financial and other support to the IESO in its activities in relation to the hydro financing initiative.

4. Engaging in such financing, borrowing, lending and related activities and transactions to support the IESO with short-term or long-term financing.

5. Providing equity, not exceeding the prescribed amount, to support the financing capacity of the Financing Entity.

Subsidiaries

(1.1) Ontario Power Generation Inc. may create one or more subsidiaries in order to more efficiently conduct its activities or achieve its objects.

x. Section 53.2 of the Act would be repealed and the following substituted:

Rights of the Minister[1]

53.2 (1) The Minister, on behalf of Her Majesty in right of Ontario, may acquire, hold, dispose of and otherwise deal with securities or debt obligations of, or any other interest in, Ontario Power Generation Inc. or any of its subsidiaries.

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[1] FLS - this provision is based on s. 49 of the Act

Agreements

(2) The Minister, on behalf of Her Majesty in right of Ontario, may enter into any agreement or arrangement that the Minister considers necessary or incidental to the exercise of a power under subsection (1).

x. The Act would be amended by adding the following Part:

PART V.2
HYDRO FINANCING INITIATIVE

FAIR HYDRO FINANCING PLAN

Establishment and adoption of the Fair Allocation Plan

A. 1 (1) The Minister of Energy [may/shall] establish a "fair allocation plan"

(a) The purpose of the plan is generally to try and reallocate the portion of GA attributable to the procurement contracts over the anticipated useful life of the generation assets under those contracts.

- **This is the intergenerational funding of the Green Generation Initiaitves.**
- **One policy question is whether the amounts deferred and the period over which the deferred amounts are repaid are to be limited to the portion of GA attributable to the procurement contracts and to the anticipated useful life of the [renewable] generation assets under those contracts.**

- From a constitutional validity perspective (and hence a financeability perspective) these limits are very important.

-Financial/economic modelling to verify this link is required.

Principles and Parameters,

(2) Based on this initial description (which is only illustrative to advance the initial stakeholder discussion), the Minister would determine the details of the "fair allocation plan", but must take into consideration the following principles:

- **The deferred GA costs should be spread over a period not exceeding the anticipated remaining useful life of the generation assets under the procurement contracts**
- **The plan should specify the length of the "reference periods", to identify which deferral consumers are responsible for which deferral repayments**

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- **The share of the deferral repayments to be allocated to deferral consumers in each "reference period" should reflect a reasonable assessment of the remaining anticipated useful life of the generation assets under procurement contracts and perhaps to the benefits received by those deferral consumers from the procurement contracts (e.g. transition off coal)]**

- **No deferral consumer group should bear an unreasonably disproportionate share of the deferral repayments. That could be limited to a maximum amount, determined on a formula basis, if it makes sense tot he stakeholders**

- **In making the allocations, real (i.e. inflation-adjusted) dollars should be usedThe fair allocation plan is made using forward-looking information and projections.**

- **If, after the fact, the Minister determines that a Ratepayer Group paid more than would otherwise would have been the case had the projections for such period been accurate or other considerations come to light, adjustments to the plan could be made.**

Attribution Methodology

(3) The program will need to define how deferral consumers will be allocated an appropriate share of aggregate adjustment amount.

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

Confirmation][Review] of the Fair Allocation Plan – [OEB?]

(4) Consideration will be needed regarding the level of review and confirmation of the plan is needed or appropriate. For example, should the scope of review be limited to calculations only? If there is a need for review, then consideration will be needed as to who will be the reviewer and under what authority, etc.

THE TREASURY PLAN

Power to Prepare and Implement the Treasury Plan –

A.2 (1) The "Treasury Plan" will be prepared by OPG. It must follow the requirements set out in this Part. Accounting considerations will need to be factored into this delegation, as well as the degree of province input initially and on an on-

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going basis. [Note for leg counsel: We will need to create the necessary sub-delegation authority]

Required Terms and Conditions of the Treasury Plan

(2) The Treasury Plan will establish the basis for OPG making funding decisions, which will need to align with the Fair Allocation Plan.

Power to Review and Approve the Treasury Plan

(3) The Minister may designate one or more persons to review, and require changes to the Treasury Plan. (This review could also be given to the Minister.) *[NTD-: Assumin no role for OEB – confirm. Any role for MOF/OFA here?]*

Obligation to Apply IESO Remittances,

(4) OPG will need to ensure that pass-through amounts, transferred to it as agent for the OPG Financing Entity, are only used to repay the debt and related costs.

Non-Recourse,

(5) The Treasury Plan will provide that the investors and other contracting parties will not have recourse to the IESO, LDCs, agents, the OEB or the Province, except where such parties fail to comply with applicable law. This may be modified in the contracts under which a financing arises.

> **NOTE: The documentation creating the Funding Obligations must expressly state that such obligations are not guaranteed by the Province.**
>
> **NOTE: See IESO/Stikeman's language for "Regulatory Asset" above.**

Incurrences are Binding,

(6) A failure to implement the Treasury Plan will not impair the pass-through of the deferral amounts or the validity of an otherwise valid funding obligation.

- **NOTE: Separate from the legislative provisions, we will also be preparing a very rough sketch of some of the items that might be included in the Treasury Plan direction.**
- **The sketch will be for illustration purposes only and will be for use in discussions with stakeholders including OPG and IESO.**

Crown bound, actions prohibited,

A.3 (1) No Action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or Collections – *[NTD: alternative* - Crown bound, prohibition against discriminatory action.

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(2) The Province will be prohibited from taking or permitting any action to limit, alter, or impair or terminate Transition Charges, the Regulatory Asset or collections.

Undertaking and Agreement

(3) Under this Undertaking, the Province will agree for the benefit the OPG Financing Entity that it will not impair the value of the Regulatory Asset or the Transition Charges imposed under this Part. This "pledge" is in line with market expectations. Enforcement issues arise in this sort of undertaking, which will be assessed by the market and rating agencies based on the likelihood that a failure by the Province would lead to a successful damages claim. Unlike in the U.S., the law regarding such a claim is uncertain. Nevertheless, we expect that this sort of Undertaking will be requested in the legislation itself (i.e., requiring an act of the legislature to disavow – which is a higher bar than simply walking away from a contractual undertaking.

[Note: TBD where to place this Part within the Act and how to structure this Part. Temporary number (e.g. A1, A2, A3 etc.) has been used for now.]

FINANCING ENTITY

Financing Entity, established or prescribed

A1. (1) For the purpose of accomplishing the hydro financing initiative, the Minister may,

(a) direct Ontario Power Generation Inc. to establish and operate a trust; or

(b) direct Ontario Power Generation Inc. to [oversee? Administer?] an entity prescribed by the regulations.

[Note: Would the direction of the Minister include any additional instructions re timing etc.?]

Duty of Ontario Power Generation Inc.

(2) Ontario Power Generation Inc. shall comply with the direction of the Minister.

[Note: Once OPG takes action under A1 in accordance with the Minister's direction, what happens if at some point in the future, the Minister wants a different entity to take over the role of the FE? Is this a concern that needs to be addressed?]

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Object of Financing Entity

A2. (1) The object of the Financing Entity is to finance the amounts required to accomplish the hydro financing initiative.

[Note: We are imposing several obligations on the Financing Entity (FE). As a practical matter, how will these obligations be enforced? Who will be responsible for meeting these obligations? (e.g. would there be directors or officers of the trust?). Or will the OPG be responsible for meeting these obligations as the body that establishes/manages the trust or oversees the designated entity?]

Activities

(2) To achieve the object, the Financing Entity shall engage in the following activities:

[Note: Just want to confirm that this should be "shall" and not "may".]

1. Borrowing funds from the Financial Corporation or from such other persons or entities [as may be prescribed?].

2. Investing funds.

3. Making payments and loans to the IESO or such other entity as may be prescribed in accordance with the regulations [or an order of the Board].

[Note: I think it would be best to specify whether the rules would be set out in a reg or in a Board order to avoid confusion.]

[Note: Should the "loans" language be removed, since you noted that the IESO is not "borrowing" from the FE?]

4. Receiving payments from the IESO or such other person or entity as may be prescribed in accordance with the regulations.

5. Issuing securities or debt ***[in the manner prescribed?].***

6. Engaging in any activities, including entering into such transactions, agreements or arrangements as may be prescribed and in accordance with the regulations.

Board review of expenditures, etc.

A3. (1) The Financing Entity shall, at least 60 days after the end of each fiscal year, submit its expenditures relating to its operations for the fiscal year including the expenses it has charged to Ontario Power Generation Inc. or the IESO, or that it has been charged by the Financial Corporation, in relation to those operations, to the Board for review.

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[Note: The list of items that have to be reported on could be more prescriptive (e.g. specifying specific amounts to be set out) or it could also allow for the Board to specify what it wants to see in the report. Let me know if you'd like to adjust the wording of the requirement.]

Board recommendations, etc.

(2) The Board may review the expenditures and charges referred to in subsection (1) and make recommendations to the Financing Entity as are appropriate in order to ensure the most efficient operation and management of the Financing Entity in order to protect consumers.

[Note: Rather than saying "in order to protect consumers", should this say "in order to achieve the object of the FE"? Or perhaps this could just be deleted altogether with no need for replacement language.]

Deemed assets, entity,

A4. Despite any other provision of this Act or the *Business Corporations Act*, the assets and liabilities which are resident in and form part of the property of the Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries for any purpose.

[Note: You posed a question about excluding an OPG subsidiary from this rule. Please instruct.]

OBTAINING FINANCING

[Note: It will be important to read all of the provisions that follow against the provisions in the existing Act, to ensure there is no overlap/confusion being created due to potential interactions between existing authority and new authority. The drafting focus so far has just been to get the relevant substantive provisions into the draft without evaluating how they fit into the broader scheme of the Act.]

Ontario Power Generation Inc. to obtain financing

A5. (1) The IESO may direct Ontario Power Generation Inc. to cause the Financing Entity to engage in any of the following activities in order to accomplish the hydro financing initiative:

[Note: As a practical matter, how would OPG "cause the FE" to do these things? How is this different from "directing"?]

1. Financing, borrowing or lending to provide the IESO with short-term or long-term financing.

2. [Purchasing/receiving/obtaining the right created under section XX] and making any payments to the IESO that relate to the IESO's activities in support of the hydro financing initiative.

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[Note: Not sure if the regulated assets would always be "purchased" or if other terminology might be needed. Please advise.]

3. Collecting from the IESO amounts that the IESO is required to pay in relation to its activities in support of the hydro financing initiative.

4. Assigning its [the IESO's?] rights to all or part of the regulatory assets established under section XXXX.

[Note: What is para. 4 about? If this is about forcing OPG to make the FE do things, then does this belong in the list? I thought that it was only the IESO that would be assigning the rights to the FE]

5. Such other activities as may be prescribed.

Same

(2) Ontario Power Generation Inc. shall comply with a direction under subsection (1) within the time specified in the direction [and any prescribed rules?].

IESO to enter into transactions

A6. (1) The IESO shall, in order to support the achievement of the hydro financing initiative, enter into transactions with the Financing Entity or any other entity for such amounts as are necessary to support the hydro financing initiative.

[Note: My understanding is that the need for "or any other entity" stems from the need to allow for the IESO to obtain temporary financing in the immediate term, before it is able to access the FE. Do you want to narrow this so that the IESO is only authorized to do this before the FE is up and running? Or do you want to keep it available on an ongoing basis?]

Same

(2) In entering into transactions under subsection (1), the IESO shall comply with the regulations.

RIGHT OF RECOVERY [CREATION OF REGULATORY ASSET]

[Note re the following provisions:
I found a provision dealing with the concept of "regulatory asset" in Bill 210 from 2002 (see s. 79.13 of the OEBA). It deems certain things to be regulatory assets but does not say much more. On the phone, you noted that the term "regulatory asset" does not have any legal meaning on its own but is just an accounting term that has been used to describe the statutorily created right of recovery. However, you also said that there may be a need to use this term in order to convey the intended meaning from an accounting perspective.

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In order to ensure that the drafting captures the policy intent, please answer/address the following questions:

1. Should we be creating a statutory right of recovery or deeming certain amounts to be a regulatory asset? [NTD-LSB: Yes. The term "Regulatory Asset" has currency in commercial law (parliance) and since much of what we're doing is to support a securitization model, the term should remain for now. Further, the term "regulatory asset" was consistently referred to in the documents provided to ENERGY LSB by Blakes. Further, IESO/Stikemans offered up alternative language for the creation of a "regulatory asset" (as an intangible asset of sorts). You said you'd consult on whether the regulatory asset terminology is important to flag in the Bill.

2. You said you're not sure whether or not the Act will require the IESO to sell/assign the right. Please instruct. If it is optional for the IESO to sell/assign, then it seems that the right could in theory remain with the IESO (unless you are saying that the statute can just create the right of the FE to recover without any need for the right to be assigned/sold by the IESO… in which case please explain why we need to deal with the sale/assignment at all). Please clarify.

3. I'm assuming that if we are creating a right, then the right must be held by someone (e.g. the IESO) before it can be assigned/sold? So should the right be created in the Act for the IESO (e.g. the IESO has a right to recover the amounts from distributors and prescribed consumers) since the IESO would then sell/assign/transfer the right to the FE? The FE must also have the right to recover from the IESO itself, so that creates an extra complication.

4. Should there be some indication of when the right of recovery/regulatory assets will no longer continue to exist (e.g. once all of the amounts have been paid?). I notice that your instructions below about the debt indicate that the debt is no longer owing once the amounts are paid, but do we need to indicate that the regulatory asset also ceases to exist at that point?

Right of recovery created

A7. A right to recover the following amounts in full from the IESO, distributors and prescribed consumers is created.

1. The [deferred amount].

2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.

[Note: How will the Board be approving these costs? Is this related to the expenditure report submitted to the Board? That provision dealing with Board expenditures doesn't refer to any approval taking place… just a review and recommendations.]

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[Note: Need to mention expenditures?]

3. Other amounts as may be prescribed or as may be approved by the Board.

Note: Are you going to be saying anything about how the interest will be calculated?

Sale [and/or?] assignment of [right? Regulatory assets?]

A8. (1) The IESO [may? Shall?], in accordance with the regulations, sell [and/or?] convey to the Financing Entity the right to recovery created established under section A7 on such terms and conditions as are provided for by the Financing Entity.

[Note: Your instructions include the terms "sell", "assign" and "convey" -- which are correct?]

[Note: Your instructions suggested that something other than the "regulatory assets" may need to be assigned to the FE. Are you referring to the "warehousing" liabilities assumed by the IESO in the early days? What else would need to be assigned? Could these items be listed above in A7 or is there a reason why they need to be kept separate?]

Sale deemed final

(2) The sale and conveyance referred to in subsection (1) is deemed to be final for all purposes.

[Note: What is this intended to achieve? Is this based on precedent language that has been interpreted to have the desired effect?]

Debts

(3) For greater certainty, the [amounts to which the FE has a right of recovery] are debts owing by the IESO, distributors and prescribed consumers to the Financial Entity until the amounts have been fully paid and fully discharged.

[Note: Why is subs. (3) necessary? Isn't it inherent in the sale of the regulatory assets that the FE would have acquired the future right to collect these amounts? Perhaps it is unclear that the amount can be collected from not just the IESO but from others down the chain. But isn't that what the "right of recovery" section above is meant to cover?]

[Note: I haven't checked to see how other similar provisions dealing with debts are drafted. Not sure we need the "for greater certainty" and also not sure what the distinction is between "fully paid" and "fully discharged". This provision will need further consideration. You also noted that you may want to specify who determines when all obligations have been satisfied.]

IESO to recover amounts

A9. The IESO shall recover the amounts set out in section A7 from distributors and prescribed consumers, in accordance with […]:

Note: how are the requirements that would determine recovery for this subsection meant to interact with the GAM reg?

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[Note: The following two subsections are placeholders. You noted that *the provision is going to have to evolve to deal with consumers who exit the grid (disconnect) completely either because they leave the province or they decide to generate their own electricity and completely disconnect. You also want to be able to prescribe* methods of ensuring that the amounts required cannot be "by-passed". I'll need to understand what is meant by "by-passed".]

Distributors liable

(x) The IESO and distributors are entitled to compensation for any shortfall in relation to the amounts the IESO must pay to generators, the Financial Corporation or other persons including prescribed persons, under section 25.33 resulting from the IESO's activities under the hydro financing initiative.

Consumers liable

(X) Prescribed consumers are required to contribute towards the amount of any compensation referred to in subsection (4) in accordance with the amounts and methods prescribed by the regulations and such amounts shall not be by-passed.

USE OF FUNDS TO REDUCE ELECTRICITY BILLS

[Note: Depending on how things land with s. 25.33, this might be a place to explain how the transactions between the IESO and the FE translate into reduction in the electricity bills of RPP consumers. Regulations could specify how the IESO would ensure that the short-term rate reductions that flow from the FE amounts are only received by the targeted class of consumers and that this same class of consumers is the only class responsible for the repayment of FE funds in the long-term.]

ALTERNATIVE LANGUAGE – REGULATORY ASSET -- PROPOSED BY IESO (STIKEMANS)

Regulatory Asset Created

A7. (1) There is hereby created and conferred upon the IESO a "Regulatory Asset" consisting of the right to recover, in addition to the amounts otherwise recoverable, in accordance with the Regulations, the aggregate of the following amounts [from distributors and] prescribed consumers. **[Quare: do we regard the Regulatory Asset as a single asset in a variable amount or as different assets arising on each deferral]:**

1. The [deferred amount, including interest accrued thereon].
2. The amounts of costs relating to the operation or management of the Financing Entity, as are approved by the Board.
3. Other amounts as may be prescribed or as may be approved by the Board.

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(2) The Regulatory Asset created by (1), shall constitute, for all purposes, a property right, shall be transferable by the IESO in accordance with Section A8, and shall constitute an intangible in which a security interest can be created for purposes of the *Personal Property Security Act*.

Election to Transfer Regulatory Asset

A8. (1) The IESO shall, from time to time, in accordance with the Regulations, elect to transfer to the Financing Entity all or any portion of the Regulatory Asset, on such terms and conditions as IESO may determine.

(2) Upon any election by the IESO pursuant to (1), the Financing Entity shall pay to the IESO in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, an amount, not less than the Deferred Amount, determined in accordance with the Regulations.

(3) Upon any election by the IESO pursuant to (1), the Financing Entity shall become the person entitled to the benefit of the Regulatory Asset, or the portion thereof in respect of which the election was made, free and clear of any adverse claim (other than any such claim created by the Financing Entity) and shall be entitled to exercise all of the rights and remedies conferred by or arising in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the IESO shall cease to have any rights (except as provided in Section A9) to or in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, all as if the Regulatory Asset, or the portion thereof in respect of which the election was made, had originally been conferred upon the Financing Entity and not the IESO.

(4) Upon any election by the IESO pursuant to (1), the IESO shall have no further rights or obligations in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and the Regulatory Asset, or the portion thereof in respect of which the election was made, shall not form part of the assets and liabilities of IESO for any purpose.

(5) The LG in Council may adopt regulations providing for the circumstances in which IESO shall make the election or elections provided for in (1).

Financing Entity may Grant Security Interest

A9. (1) The Financing Entity may, at any time after an election referred to in Section A8(1), create a security interest in favour of any person in all or any portion of the Regulatory Asset subject to such election, all on such terms and conditions as the Financing Entity may determine.

(2) Except as provided for in Regulations adopted pursuant to (3), *The Personal Property Security Act* shall apply to any security interest created pursuant to (1), except that the rights of the secured party on default shall be limited to receiving the amounts collected in respect of the Regulatory Asset, or the portion thereof subject to the security interest, as and when collected by the IESO in accordance with A10.

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(3) The LG in Council may adopt regulations providing for the terms on which the security interest provided for in (1) can be created and perfected and for the priority of any such security interest.

IESO to Collect Amounts in Respect of the Regulatory Asset

A10. Subsequent to any election pursuant to Section A8, the IESO shall, as agent on behalf of the Financing Entity and any secured party, use reasonable efforts to collect the amounts owing in respect of the Regulatory Asset, or the portion thereof in respect of which the election was made, and shall promptly pay over to the Financing Entity or the secured party the amounts collected.

--------*END OF IESO/BLAKES ALTERNATIVE LANGUAGE FOR REG. ASSET ---*

------- ***BLAKES VERSION OF LANGUAGE FOR REGULATORY ASSET***

The Regulatory Asset, Composition,

A7(1) The "regulatory asset" consists of the following:

- **present and future statutory obligation of:**
  - **deferral consumers - to make all deferral repayments (including interest and late payment fees)**
  - **LDCs - to invoice the deferral consumers for the deferral repayments and to remit the amounts collected to the IESO**
  - **IESO - to receive and remit the deferral repayments from LDCs to the OPG Financing Entity**
- **All deferral repayment amounts collected**
- **All amounts in LDC or IESO deferral payment bank accounts**

Validity of Dispositions

(2) This section is reinforcing by statute the "sale" of the asset to the Financing Entity. This has been an important feature of the legislation in other jurisdictions in similar circumstances. Specifically, it says that "Dispositions" of the Regulatory Asset are "true sales", and not subject to challenge. This is an essential requirement for a securitization transaction. This provision identifies possible grounds for a challenge that a sale took place and indicates that those events do not affect the validity of the sale.

Deemed Perfection and Priority of Dispositions

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(3) This is reinforcing the automatic nature of the "sale" of the asset. It Provides for a clean sale to the OPG Financing Entity, free and clear of encumbrances (i.e., no specific need to "perfect" the sale.

Validity of Pledges,
(4) Statutory override permitting the OPG Financing Entity to give a security interest in the "regulatory asset" to investors.

> **This would give the investors (through an indenture) the right to enforce collection of the deferral repayments to pay off amounts owed by the OPG Financing Entity to the investors upon certain defaults by the OPG Financing Entity under an indenture.**

Deemed Perfection and Priority of Pledges
(5) This is reinforcing that a commercial pledge given by OPG Financing Entity is valid and will have priority without specific "perfection". The result is that a pledge of the Regulatory Asset as security in accordance with the Treasury Plan will be given priority to other claims. The Pledge includes proceeds from the Regulatory Asset and is not affected by comingling or the ordinary requirement to file a financing statement under the PPSA.

Enforcement of Property Rights –

(6) The rights of any Regulatory Asset Owner to collect and enforce its rights and interests in, to or in respect of the Regulatory Asset shall be exercised in the manner set forth in Article 5. *[ntd-: NOT an annotation – pulled directly from Blakes' document.]*

Collective Action Required –
(7) This anticipates that the Regulatory Asset will be structured as a variable interest that can be divided between IESO (until it sells) and one or more OPG Financing Entitys. The likely format will be a co-ownership agreement, that will allow for different owners to have a fractional undivided ownership interest in the Regulatory Asset. Those will entitle the owners to a specified share of the cash flows, which will correspond to their finance payment obligations. This will allow for future financing flexibility.

MISCELLANEOUS

Fair Hydro Financing Plan, miscellaneous,

A.8 (1) Consideration will be given to whether any additional 'miscellaneous' provisions are needed (and expected by the market) to support the financing of this

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structure. Some of these provisions are not typical in legislation, and so will need further consideration (in consultation with leg counsel).

Regulations

114(1.5) The LGIC may make regulations to implement the Fair Hydro Financing Initiative

-(a) The power to implement the program (and to set out some of the details of the program) through regulations is important. Decisions remain to be made (once the drafting is a little further advanced) about what provisions/details need to appear in the proposed legislation, and what provisions/details can be set out in regulations.

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ONTARIO ENERGY BOARD ACT, 1998

x. Subsection 1 (1) of the *Ontario Energy Board Act, 1998* would be amended by adding the following paragraph:

6. To facilitate the implementation of the [hydro financing initiative].

[Note: Would need to link with definition in the EA or else spell out the definition here - TBD.]

x. Section 27.1 of the Act would be amended by adding the following paragraph:

Hearings

(1.1) A directive may specify whether the Board is to hold a hearing, the circumstances under which a hearing may or may not be held and, if a hearing is to be held, the type of hearing to be held and the time within which it must be held.

The underlined is what makes this different from the other provisions in the Act that basically have the same wording. There are already a number of places in the Act where you have this type of hearings provision re directives (e.g., s. 27.2 (7)). If you basically want the same authority in each instance, then the wording should be consistent in each case. There are already some discrepancies between the current provisions (e.g., s. 27.2

(7) talks about types of hearings, whereas s. 28 (2) doesn't). Differences in wording will typically be presumed to be differences in meaning. So, the question is what you're intending to authorize in each case, and whether differences are intended. If you want the same thing everywhere, it should all be worded the same. Let me know.

[Note: Waiting for confirmation whether amendments to s. 78.7 are needed. Please advise.]

x. Section 78 of the Act would be amended by adding the following subsection after subsection (3.0.5):

Rates, fair hydro financing initiative activities -IESO, OPG, distributors, etc.
(3.0.6) The OEB would not be precluded from taking into account the performance of duties under this Part by any entity regulated by the OEB, including fees received by such entity in excess of the incremental costs of the provision of such services.

x. Section 79.16 (3) of the Act would be repealed and the following substituted:

Adjustment to eliminate variances

(3) In determining rates under clause (1) (b), the Board shall take into account balances in variance accounts established under section 25.33 of the *Electricity Act, 1998* and, subject to section X of that Act, make adjustments with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct.

[Note: Please let me know what section the highlighted portion is supposed to refer to… is it the provision that says the IESO has the 30 year period to pay off the amount in the variance account for the hydro financing initiative? I wonder if this is confusing and whether the amendment to subs. (3) above works… it almost seems unnecessary to say that the Board has to "take into account" this balance, given that we are setting up a bunch of very specific rules about what has to be done by various entities in order to eliminate this amount. What would the Board be expected to do with information about this variance account? For consideration.]

PART VII.3

COMPLIANCE – FAIR HYDRO FINANCING INITIATIVE

Right of the [OEB] to Inspect Books and Records,
113 (1) OEB may be given the power to investigate compliance with the legislation and the power to examine books and records, etc.

Power to Investigate Compliance and Impose Regulatory Sanctions

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(2) This legislation will not limit the OEB's power to investigate compliance or prevent or preclude the OEB's power to impose sanctions. The OEB can investigate compliance with this part and to impose regulatory sanctions for non-compliance.

Limitation, Board,

(2.1) The OEB cannot, however, take any action to affect the irrevocability of the Transition Charges or the Undertaking of the Province.

Timing – this proposal for legislation would, if approved by the Legislature, come into force on a date to be established by Government.

Confidential Draft

From: Bruno Amara
To: John Kim
Subject: RE: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 1:05:35 PM

John, I can get staff working on this. I'll review with Shajee this afternoon, to map out a game plan.

Bruno

From: Ronald Kwan
Sent: Wednesday, March 08, 2017 12:39 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: 25% Electricity Price Reduction....

Hi Bruno,

Let's be qualitatively responsive, with respect to whom the various proposed elements apply to. It's always good to be seen as the first channel for internal-MOF expertise on electricity-related issues.

So please explain the RPP eligible universe for the GA, and how that it is a shifting of cost recovery in time initiative, though, by targeted design, not with a fiscal impact.

The RRRP and OESP are the bigger to be government funded programs, but if the intent is still to balance, OEP will have to work out whether there is a fiscal stimulus from that, other than the redistributive impact and any associated lower savings rates by those groups.

I think that on the quantitative side, I'd be fine if we asked Energy staff if it's okay to share what we have with OEP for them to do the economic impact analysis, or if Energy wants to provide the numbers directly to OEP.

Please keep me apprised as this progresses.

Thanks,
Ron

From: Bruno Amara
Sent: March-08-17 12:23
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: 25% Electricity Price Reduction....

Hi Ron,

See below the information request from OEP regarding estimating economic impacts of the Fair

Hydro Plan. I'm thinking this request should be directed to Energy? But let me know if you think EFB has a role. I think OEP would likely be looking for detail on

- $ impacts on consumer bills (which consumers)
- $ impacts on businesses (which businesses)
- $ fiscal impact to province

And I assume year-by-year outlook for the above.

Bruno

From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: 25% Electricity Price Reduction....

Hi Bruno

I hope all is well at your new position.

I left you a voicemail a few minutes ago. We've been asked by Brian to run a simulation to look at the broader economic impacts of the policy to reduce electricity prices by 25%. To help us model the policy more precisely, it would be helpful if we could get a more detailed description of the policy / program so that we have a better understanding of exactly what the policy is, and which user groups will be impacted etc. Any information about this would be helpful, including cost estimates for the program.

Could you pass this email to the person in your office who might be able to provide the above information?

Thank you!

Michael
416-212-0709

From: Bruno Amara
To: Ronald Kwan
Cc: John Kim
Subject: RE: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 12:57:46 PM

OK Thanks Ron. Will proceed on that basis and let you know as we go along.

Bruno

From: Ronald Kwan
Sent: Wednesday, March 08, 2017 12:39 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
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From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: 25% Electricity Price Reduction....

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Michael
416-212-0709

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim
Subject: RE: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 12:39:08 PM

Hi Bruno,

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So please explain the RPP eligible universe for the GA, and how that it is a shifting of cost recovery in time initiative, though, by targeted design, not with a fiscal impact.

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From: Bruno Amara
Sent: March-08-17 12:23
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
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From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
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Michael
416-212-0709

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim
Subject: RE: 25% Electricity Price Reduction....
Date: Wednesday, March 08, 2017 1:45:24 PM

Thanks Bruno.

Ron

From: Bruno Amara
Sent: March-08-17 12:58
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: 25% Electricity Price Reduction....

OK Thanks Ron. Will proceed on that basis and let you know as we go along.

Bruno

From: Ronald Kwan
Sent: Wednesday, March 08, 2017 12:39 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
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And I assume year-by-year outlook for the above.

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From: Marr, Michael (MOF) [mailto:Michael.Marr@ontario.ca]
Sent: Wednesday, March 08, 2017 10:05 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: 25% Electricity Price Reduction....

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Could you pass this email to the person in your office who might be able to provide the above information?

Thank you!

Michael
416-212-0709

From: Shajee Kathirgamanathan
To: Bruno Amara; John Kim
Subject: RE: Additional Energy Request
Date: Monday, March 20, 2017 1:43:55 PM

My guess would be that there might be something in the legislation that ties the GA smoothing to the other components of the bill.

But it's really tricky especially since different distributors increase bills at different rates, and in the news release they state:
"As part of this plan, rate increases over the next four years would be held to the rate of inflation ***for everyone***."

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Monday, March 20, 2017 1:34 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Additional Energy Request

Isn't the key issue that we might want a thought out response to someone asking something like the following

Premier, I understand your plans to limit cost increases to the Global Adjustment portion of electricity bills through GA smoothing, but there are also the delivery and regulatory components of electricity bills. You haven't outlined how you are controlling those costs, so how can you promise to limit the entire bill increase to inflation? I know Joe Smith's delivery charge was 80% of his bill over the last three months etc. etc.

From: Shajee Kathirgamanathan
Sent: Monday, March 20, 2017 1:24 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

Correct it's the inflation which I think Ron is also referring to…. Ron seems to imply the implementation/targeting is questionable, so I'm ok with that.

Will respond to that effect.

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 20, 2017 1:03 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

I'd be okay any one of us to respond on the first one….it's the increasing at the rate of inflation that we are focusing on, not the 25% part, which is what Ron may be asking….

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:01 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

Hi,

On the first question, I though the CabSub and draft Minute were quite clear that it was on the entire bill. Are you reading in some ambiguity? The ability to target precisely, is, of course an implementation issue, but I don't think we need that for the narrative.

Fine to ask at a staff-level on the other two.

Ron

From: Gavin He
Sent: March-20-17 12:12
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: Additional Energy Request

Hi Ron,

EFB would like to reach out to Energy for some additional requests. EFB has drafted below covering email and questions, could you please review and let us know if you are good with below messaging and request?

Hi,

With respect to Ontario's Fair Hydro Plan, there are 3 statements (see below) in news releases that we have not been able to fact check or that we are unable to confirm based on our understanding of the proposed measures. Would the Ministry of Energy be able to provide these fact check and explanations? Alternately, to ensure that we are on the same page, could Energy share questions and answers on these issues?

We appreciate your help.

1. *"After the 25% decrease in bills, rates are rising at the rate of inflation"*
    - Please confirm if this refers to only the commodity cost of electricity or entire bills.
        - Cabinet Submission seemed to refer to ***only*** electricity/commodity costs. Furthermore, unclear how this inflation goal can be reached when GA smoothing appear to be the only lever we have to adjust future rates dynamically.
        - Premier's statement seems to imply total bills: *"After we bring bills down by 25% we will hold them there with rates rising only with inflation -- or roughly 2% -- for at least four years."*
        - The Fair Hydro Plan website is more explicit in referring to total bills: *"And bills won't increase beyond the rate of inflation for at least four years."*

2. *"Decades of under-investment in the electricity system by governments..." (from March 2 Backgrounder, Refinancing the Global Adjustment)*
    - Please provide any backup or supporting information for this claim, ie 'decades of under-investment'.

3. *"these changes will deliver the single-largest reduction to electricity rates in Ontario's history.." (from March 2 News Release, Ontario Cutting Electricity Bills by 25 Per Cent)*
    - Please provide any backup or supporting information for this claim, ie 'single-largest reduction'.

Thanks,
Gavin He

From:	Bruno Amara
To:	Shajee Kathirgamanathan; John Kim
Subject:	RE: Additional Energy Request
Date:	Monday, March 20, 2017 1:33:39 PM

Isn't the key issue that we might want a thought out response to someone asking something like the following

Premier, I understand your plans to limit cost increases to the Global Adjustment portion of electricity bills through GA smoothing, but there are also the delivery and regulatory components of electricity bills. You haven't outlined how you are controlling those costs, so how can you promise to limit the entire bill increase to inflation? I know Joe Smith's delivery charge was 80% of his bill over the last three months etc. etc.

From: Shajee Kathirgamanathan
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Will respond to that effect.

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Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 20, 2017 1:03 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

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Sent: Monday, March 20, 2017 1:01 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
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From: Gavin He
Sent: March-20-17 12:12
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
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Thanks,
Gavin He

From:	Shajee Kathirgamanathan
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	RE: Additional Energy Request
Date:	Monday, March 20, 2017 1:24:15 PM

Correct it's the inflation which I think Ron is also referring to…. Ron seems to imply the implementation/targeting is questionable, so I'm ok with that.

Will respond to that effect.

Thanks,
Shajee

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From:	Gavin He
To:	Shajee Kathirgamanathan; John Kim; Bruno Amara
Subject:	RE: Additional Energy Request
Date:	Monday, March 20, 2017 11:34:32 AM

Hi Shajee,

Sure, will do.

Regards,
Gavin He

From: Shajee Kathirgamanathan
Sent: Monday, March 20, 2017 11:34 AM
To: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
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- Please provide any backup or supporting information for this claim, ie ‘single-largest reduction’.

John, Bruno, if these look ok to you, can we run them by Ron and then go to Energy via DMO-to-DMO?

Happy to chat further about this at Monday’s branch meeting.

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
To: Bruno Amara; John Kim
Cc: Gavin He
Subject: RE: Additional Energy Request
Date: Monday, March 20, 2017 11:17:07 AM

Good point on citing sources. Please see revised questions.

1. *"After the 25% decrease in bills, rates are rising at the rate of inflation"*
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     - Cabinet Submission seemed to refer to ***only*** electricity/commodity costs. Furthermore, unclear how this inflation goal can be reached when GA smoothing appear to be the only lever we have to adjust future dynamically.
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   - Please provide any backup or supporting information for this claim, ie 'single-largest reduction'.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Monday, March 20, 2017 11:13 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: Additional Energy Request

Hi John, per Shajee's email and discussion this morning. Are you OK with running those question by Ron to send to Energy. I have drafted below our request to Energy.

Shajee, I think we would need to, for 2 and 3, cite the source, instead of hyperlinks?

Bruno

With respect to Ontario's fair Hydro Plan, there are a 3 statements (see below) in the document narrative and in news releases that have not been able to fact check or that we are unable to confirm based on our understanding of the proposed measures. Would the Ministry of Energy be able to provide these fact check and explanations. Alternately, to ensure that we are on the same page, could Energy share questions and answers on these issues.

We appreciate your help.

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From: Shajee Kathirgamanathan
Sent: Friday, March 17, 2017 5:30 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Additional Energy Request

Hi,

There are 3 statements in the narrative that we're having trouble finding backup/fact check for. Can we make these asks to Energy or at least make them aware. Particularly in light of Ron questioning #3 during narrative reviews:

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Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
To: John Kim
Cc: Gavin He; Shajee Kathirgamanathan
Subject: RE: Additional Energy Request
Date: Monday, March 20, 2017 11:13:18 AM

Hi John, per Shajee's email and discussion this morning. Are you OK with running those question by Ron to send to Energy. I have drafted below our request to Energy.

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Sent: Friday, March 17, 2017 5:30 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Additional Energy Request

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Thanks,
Shajee

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Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
To: John Kim; Bruno Amara
Subject: RE: Additional Energy Request
Date: Monday, March 20, 2017 2:06:27 PM

Thanks. Taking a look through the CabSub, they do have reference to CPI, but in previous CabSubs it was tied to the electricity component (or seemed that way with GA deferral). So sorry about that, I take back my earlier statement when I mentioned they didn't explicitly state the inflation targeting.

However the implementation is really curious which Ron seems to agree with….But if Ron wants us to ignore that for now, happy to as well.

When he says we don't need that for the narrative, does he mean to take it out or leave in and use the public messaging for the backup?
I think he means how will the government target and ensure the inflation increases 'for everyone' occur, even though the delivery components of the bill may increase at different rates. We'll leave it in the narrative for now (use public sources), and don't worry about targeting.

I guess we'll take implementation as a black box now and just go with public language.

Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 20, 2017 1:52 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Additional Energy Request

Ok, I think maybe I mis-read his original question. I don't think there is any ambiguity what the narrative or the NR says. We just don't think that's what was in the CabSub.

When he says we don't need that for the narrative, does he mean to take it out or leave in and use the public messaging for the backup?

From: Shajee Kathirgamanathan
Sent: Monday, March 20, 2017 1:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Additional Energy Request

My guess would be that there might be something in the legislation that ties the GA smoothing to

the other components of the bill.

But it's really tricky especially since different distributors increase bills at different rates, and in the news release they state:
"As part of this plan, rate increases over the next four years would be held to the rate of inflation ***for everyone***."

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Monday, March 20, 2017 1:34 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Additional Energy Request

Isn't the key issue that we might want a thought out response to someone asking something like the following

Premier, I understand your plans to limit cost increases to the Global Adjustment portion of electricity bills through GA smoothing, but there are also the delivery and regulatory components of electricity bills. You haven't outlined how you are controlling those costs, so how can you promise to limit the entire bill increase to inflation? I know Joe Smith's delivery charge was 80% of his bill over the last three months etc. etc.

From: Shajee Kathirgamanathan
Sent: Monday, March 20, 2017 1:24 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

Correct it's the inflation which I think Ron is also referring to…. Ron seems to imply the implementation/targeting is questionable, so I'm ok with that.

Will respond to that effect.

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 20, 2017 1:03 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

I'd be okay any one of us to respond on the first one….it's the increasing at the rate of inflation that we are focusing on, not the 25% part, which is what Ron may be asking….

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:01 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Additional Energy Request

Hi,

On the first question, I though the CabSub and draft Minute were quite clear that it was on the entire bill. Are you reading in some ambiguity? The ability to target precisely, is, of course an implementation issue, but I don't think we need that for the narrative.

Fine to ask at a staff-level on the other two.

Ron

From: Gavin He
Sent: March-20-17 12:12
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: Additional Energy Request

Hi Ron,

EFB would like to reach out to Energy for some additional requests. EFB has drafted below covering email and questions, could you please review and let us know if you are good with below messaging

and request?

Hi,

With respect to Ontario's Fair Hydro Plan, there are 3 statements (see below) in news releases that we have not been able to fact check or that we are unable to confirm based on our understanding of the proposed measures. Would the Ministry of Energy be able to provide these fact check and explanations? Alternately, to ensure that we are on the same page, could Energy share questions and answers on these issues?

We appreciate your help.

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    - Please provide any backup or supporting information for this claim, ie 'single-largest reduction'.

Thanks,
Gavin He

From: Shajee Kathirgamanathan
To: John Kim; Ronald Kwan
Cc: Bruno Amara; Gavin He
Subject: RE: Affordability Fund - Final BN
Date: Monday, March 06, 2017 6:21:29 PM
Attachments: 3 BN ENERGY Affordability Fund v4 FINAL_CEFDv3.doc

---

Hi Ron,

Please find attached some comments on the Affordability Fund note.

Most of the comments – at least on my end – stem from Hydro One's involvement. Any idea why Hydro One is in charge with setting up the Trust? It wasn't clear on the note.

File also found here:
S:\Users\CEF\Hydro 2017\Cabinet Submissions\Affordability Fund\3 BN ENERGY Affordability Fund v4 FINAL_CEFDv3.doc

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Monday, March 06, 2017 2:56 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: FW: Affordability Fund - Final BN

Hi Shajee

Could you take a look at attached please.

..and I'll forward you the email on the GA IOD/OPG issue when I find it.

Thanks

From: John Kim
Sent: Monday, March 06, 2017 1:43 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Affordability Fund - Final BN

Hi Bruno,

Pls. take a look….Shajee would be the best person to lead this one.

Thanks,

John.

From: Ronald Kwan
Sent: Monday, March 06, 2017 1:13 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Affordability Fund - Final BN

Hi,

Please review.

Thanks,
Ron

From: McLean, David (MOF) [mailto:David.McLean@ontario.ca]
Sent: March-06-17 13:00
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Tim Schuurman (MOF) <Tim.Schuurman@ontario.ca>
Cc: Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>; Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>; Gwendolynne Young (ENE) <Gwendolynne.Young@ontario.ca>
Subject: FW: Affordability Fund - Final BN

FYI

From: MacIntyre, Kyle (TBS)
Sent: March 6, 2017 12:04 PM
To: McLean, David (MOF)
Subject: Fwd: Affordability Fund - Final BN

Begin forwarded message:

> **From:** "Nelson, Dane (TBS)" <Dane.Nelson@ontario.ca>
> **Date:** March 6, 2017 at 12:00:21 PM EST
> **To:** "Poopalapillai, Christine (TBS)" <Christine.Poopalapillai@ontario.ca>, "Jancik, Mike (TBS)" <Mike.Jancik@ontario.ca>

Cc: "MacIntyre, Kyle (TBS)" <Kyle.MacIntyre@ontario.ca>, "Simone, Nicole (TBS)" <Nicole.Simone@ontario.ca>
Subject: FW: Affordability Fund - Final BN

Please find the updated Affordability Fund Note attached.

Regards,

Dane Nelson, Senior Policy Advisor
Treasury Board Secretariat | Deputy Minister's Office
Phone: 416-325-3617 | Mobile: 416-409-3437 | E-mail: Dane.Nelson@ontario.ca

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 6, 2017
Agenda Class:	Discussion
Last reviewed by: TB/MBC (March 1, 2017)	**Tracking to:** Fast Track Cabinet (March 8, 2017)

SUBMISSION TITLE:	Affordability Fund

I. DECISION BEFORE THE BOARD

- Approve funding in 2016-17 to support the Affordability Fund.

II. RECOMMENDATIONS:

• Approve $100,000,000 in 2016-17 offset from the Treasury Board Contingency Fund to support the Affordability Fund.	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested	200.0	0.0	0.0
Initiative cost recommended	100.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact (C-fund)	100.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

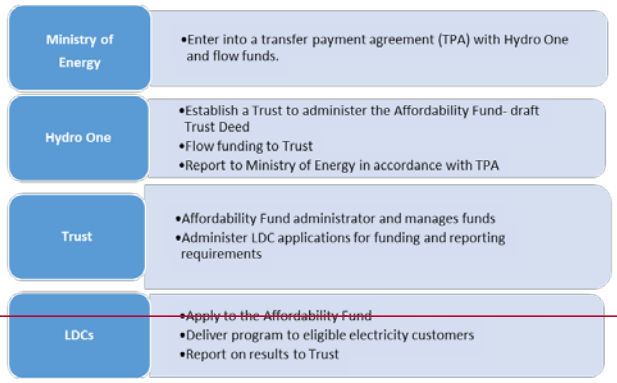
This item was part of the suite of initiatives before TB/MBC on March 1, 2017 related to electricity price mitigation. The Affordability Fund was minuted as follows:

> Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.
>
> a) Approved a commitment to provide up to $200,000,000 on a multi-year basis.
>
> b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

The Ministry's current request is for $200,000,000 in 2016-17 offset from the Treasury Board Contingency Fund. The Affordability Fund would be available to LDCs only and would target those electricity customers who do not qualify for low-income conservation programs (e.g. The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework) and who have difficulty paying their electricity bills.

- Ministry indicates that, based on LDC-reported data, 60,000 Ontarians at risk of disconnection from their electricity service each year. (TBS staff note a profile description or details of these consumers is not provided by the Ministry, and the Ministry has clarified this profile data has not been reported by LDCs to the OEB).
- Eligible customers will be identified by LDCs and could include those in frequent arrears or facing disconnection. Priority would be given to homes primarily heated by electricity. Appendix C outlines the Ministry's eligibility principles for the Fund.

To establish the Fund, the Ministry of Energy intends to enter into a Transfer Payment Agreement (TPA) with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province, including Hydro One, at the direction of the Trustees.



- The Trust's governing principles will be outlined in the Trust Deed and the Trust will be managed by a Board of Trustees.
  - The Trust Deed will be drafted by Hydro One with input from the province and others in the LDC sector. The goals and principles of the Fund will be outlined in the Trust Deed and be consistent with the TPA, but the Trustees will have the discretion as to how to achieve the goals in alignment with the principles.
- The Trust would include Trustees possibly from the government, from other LDCs across the province and other independent Trustees, but not be controlled by the Province.
- The Trustees will have the discretion to hire Hydro One or other entities as service providers to assist with administering the Fund.
- The Trust would distribute funds to LDCs across the province (including Hydro One) at the discretion of the Trustees.
- LDCs would identify their respective eligible electricity customers and deliver the funding in accordance with the program.
  To protect public interest, it is expected that the Trust Deed will reflect an expectation that accountability provisions be included in funding provided to the LDCs which are consistent with those required under the TPAD.

Since the submission was received centrally, the Ministry has been working with the Office of the Provincial Controller Division (OPCD) on appropriate funding arrangements (Providing the funding to the Trust directly versus providing funding to Hydro One, who would provide it to the Trust) to ensure that the Province's and the Auditor General's respective abilities to audit the use of the funds is maintained under the Province's Transfer Payment and Accountability Directive and the Auditor General Act. The Ministry is currently working with H1 and its external advisors on this topic, and further details will be available shortly. At this time, it is not anticipated that such changes would impair ability to complete the transfer by March 31st.

Commented [SK81]: What is the rationale for Hydro One to administer trust and distribute funds? Is this related to the transmission system in any way?

Commented [SK82]: Why Hydro One?

Commented [BA3]: TPAD? Transfer Payment Acct Dir. Does this need to be spelled out?

Commented [SK84]: As H1 is outside the authority of the Auditor General, there can be a view that using H1 as a mechanism to deliver these services is to avoid scrutiny.

The Ministry indicates the measures funded through the Fund would be similar, or build on those available through the Home Assistance Program, and would specifically target customers who are otherwise not eligible for existing programs but could benefit from conservation programs.

- The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

Affordability Fund recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the Ministry indicates the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake. The large range takes into account the potential take-up of more expensive measures such as cold climate air source heat pumps which can range in cost from $7-$13K, and which can achieve significant electricity savings.

Performance Measurement:

The submission indicates that Hydro One would provide support to the Province in exercising its oversight of the program by collecting reports from the LDCs on behalf of the Province and/or submitting regular progress reports on program participation. The TPA with Hydro One will include details on reporting requirements. There is currently no mention of outcome measures in the submission but such details are expected to follow as planning progresses. The Ministry notes the government can outline broader principles and intended outcomes but specific outcome targets (like helped X homes result in Y savings) would be seen as prescriptive and in conflict with the Trust model.

The Ministry will create a grant agreement (i.e., A Transfer Payment Agreement) consistent with OPCD's guidance on one-time transfers and TPAD.

Risks:
Appendix C is the risk table submitted by the Ministry. Many of the Ministry's cited risk focus on the quick timing to put the program in place in 2016-17, oversubscription of funds, and underspending.

The Ministry also notes moderate risk with a high impact from flowing the funds into an independent trust account also for limited accountability, oversight, and transparency provisions. TBS staff note the list of accountability provisions provided by the Ministry above does not explicitly mention (nor does the submission elsewhere) the Transfer Payment Accountability Directive (TPAD) principle – Value for money is expected in the expenditure of government funds. TBS staff noted OPCD's one-time guidance is implicitly aligned with TPAD including value for money expectation.

TBS staff notes moderate risk around geographical representation of members in the Trust, lack of program design details (e.g., LDC and customer eligibility criteria) and lack of articulation of what success looks like for the program to ensure accountability. With the non-application based program structure, eligibility and selection criteria needs to be clearly established to pass the equity test.

Financials:
The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17 offset from the Treasury Board Contingency Fund.

- The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

- Administration expenses will be in accordance with the Transfer Payment Directive.

Commented [KJ5]: Slide 57-58 of Cabinet Deck. This is the stated logic for the creation of the Affordability Fund.

Commented [SK86]: Does it include installation of these measures?

- The Ministry expects that the funds through the Affordability Fund will be deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base. The Ministry intends to seek an exemption from the Cash Management Directive from the Ontario Financing Authority, MOF.

TBS staff note the March 1, 2017 minute was a commitment of up to $200M on a multi-year basis with direction to the Ministry Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

Commented [SK87]: Not sure what's being mentioned here.

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Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	March 3, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEMD, TBS		

APPENDIX A: PROPOSED MINUTE

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a) Report back to TB/MBC by Q1 2017-18 with final program details, and a performance management framework including intended outcomes.

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FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
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APPENDIX C: AFFORDABILITY FUND PRINCIPLES

The Ministry has developed high-level principles by which the Affordability Fund will operate and will continue to refine these principles through discussion with all LDCs. LDCs are best positioned to provide further guidance on principles as they are closest to the customer and will be responsible for identifying the customers in need and delivering assistance to them. All LDCs will be able to apply to access to the Affordability Fund so they may address the needs of their customer base. Principles include:

- The purpose of the Affordability Fund is to assist electricity customers who do not qualify for low-income conservation programs, are struggling to pay their electricity bills, and are unable to make energy efficiency improvements to their homes without financial assistance. The Fund would offer these customers energy efficiency measures at no or minimal cost, providing LDCs with an additional tool to help customers in need to reduce their future electricity bills and avoid future disconnections.
- Trust and Trustees - The Fund is to be administered by an independent Trust. Trustees are to be representative and have relevant sector expertise.
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    - While arrears are an important indicator of need to LDCs, LDCs have also indicated that there may be customers who are keeping up with their bills, but at the expense of paying for food or other basic needs. LDCs have asked for discretion to also offer energy efficiency measures to these customers.
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances.
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APPENDIX D: MINISTRY'S RISK ASSESSMENT AND MITIGATION STRATEGY

Risk	Likelihood (L/M/H)	Impact (L/M/H)	Mitigation Strategy
It is proposed that the funding for the Fund be expensed in 2016-17, while the programs would be delivered in future fiscal years. The Auditor General may ask for the funding to be expensed in future fiscal years.	M	L	ENERGY is continuing to engage with Hydro One and the Ontario Provincial Controller (OPCD) early to develop the funding mechanism and Trust. ENERGY is working to flow the funds to the Trust in advance of March 31, 2017.
The Auditor General may question the rush nature of this program in addition to the need for a Trust Account and why the Ministry is unable to deliver the program itself.	H	M	Explain that the Fund is part of the government's rate mitigation strategy, and intended to address an immediate need (getting customers on a more sustainable path with bills). ENERGY lacks the capacity to deliver the program itself. ENERGY will develop issues management materials to address these concerns.
Flowing the funds into an independent trust account allows for limited accountability, oversight and transparency provisions.	M	H	ENERGY has engaged with the Ontario Provincial Controller to seek their guidance on how to incorporate accountability, oversight and transparency provisions in the TPA. ENERGY will develop a TPA in-line with OPCD guidelines on accounting considerations for using government funded Trust Accounts.
Oversubscription of funds	M	M	Need for additional funding in future years can be evaluated based on customer needs.
Underspending of allocated funds	L	M	TPA will include the option to extend the original funding amount into future years. The Trust will also have the ability to extend funding as needed. To increase uptake for customers in need, LDCs will undertake targeted outreach.
Some entities, including LDCs who are not selected as parties to the TPA, may feel left out of the funding program or perceive the funding as inadequate.	M	L	Undertake consultations with LDCs and other stakeholders to provide input on allocation methodology. Prepare a robust communication plan to emphasize the scope and purpose of the Fund

From: Shajee Kathirgamanathan
To: Bruno Amara; John Kim
Subject: RE: Affordability Fund Note
Date: Monday, March 06, 2017 5:43:14 PM
Attachments: 3 BN ENERGY Affordability Fund v4 FINAL_CEFDv3.doc

Please see attached merged with Karim's one comment.

John – if you hear anything about why Hydro One is involved with this would you mind letting me know. I really don't know why they are involved in setting up this trust or the rationale. The lack of explanation is also curious. Am I missing something

File also found here:
S:\Users\CEF\Hydro 2017\Cabinet Submissions\Affordability Fund\3 BN ENERGY Affordability Fund v4 FINAL_CEFDv3.doc

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Monday, March 06, 2017 5:40 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: Affordability Fund Note

Hi John

Just to be clear, we had comments and SPFB had comments which we will merge. Did you receive comments from anywhere else?

From: John Kim
Sent: Monday, March 06, 2017 5:36 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: Affordability Fund Note

Sorry, just saw this…..could we merge with SPFB's?

From: Bruno Amara

Sent: Monday, March 06, 2017 4:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: Affordability Fund Note

Hi John:

Comments attached.

Bruno

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 6, 2017
Agenda Class:	Discussion
Last reviewed by: TB/MBC (March 1, 2017)	**Tracking to:** Fast Track Cabinet (March 8, 2017)

SUBMISSION TITLE:	Affordability Fund

I. DECISION BEFORE THE BOARD

- Approve funding in 2016-17 to support the Affordability Fund.

II. RECOMMENDATIONS:

• Approve $100,000,000 in 2016-17 offset from the Treasury Board Contingency Fund to support the Affordability Fund.	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested	200.0	0.0	0.0
Initiative cost recommended	100.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact (C-fund)	100.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

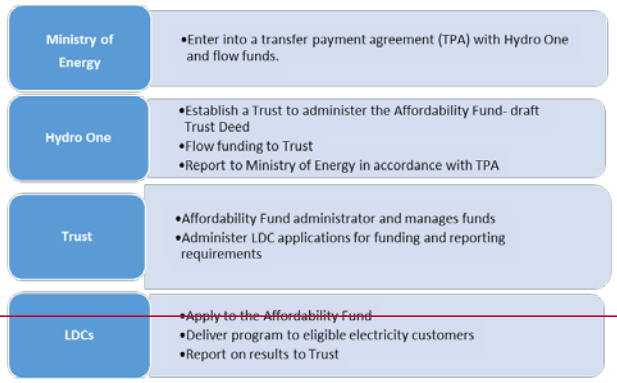
This item was part of the suite of initiatives before TB/MBC on March 1, 2017 related to electricity price mitigation. The Affordability Fund was minuted as follows:

> Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.
>
> a) Approved a commitment to provide up to $200,000,000 on a multi-year basis.
>
> b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

The Ministry's current request is for $200,000,000 in 2016-17 offset from the Treasury Board Contingency Fund. The Affordability Fund would be available to LDCs only and would target those electricity customers who do not qualify for low-income conservation programs (e.g. The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework) and who have difficulty paying their electricity bills.

- Ministry indicates that, based on LDC-reported data, 60,000 Ontarians at risk of disconnection from their electricity service each year. (TBS staff note a profile description or details of these consumers is not provided by the Ministry, and the Ministry has clarified this profile data has not been reported by LDCs to the OEB).
- Eligible customers will be identified by LDCs and could include those in frequent arrears or facing disconnection. Priority would be given to homes primarily heated by electricity. Appendix C outlines the Ministry's eligibility principles for the Fund.

To establish the Fund, the Ministry of Energy intends to enter into a Transfer Payment Agreement (TPA) with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province, including Hydro One, at the direction of the Trustees.



- The Trust's governing principles will be outlined in the Trust Deed and the Trust will be managed by a Board of Trustees.
  - The Trust Deed will be drafted by Hydro One with input from the province and others in the LDC sector. The goals and principles of the Fund will be outlined in the Trust Deed and be consistent with the TPA, but the Trustees will have the discretion as to how to achieve the goals in alignment with the principles.
- The Trust would include Trustees possibly from the government, from other LDCs across the province and other independent Trustees, but not be controlled by the Province.
- The Trustees will have the discretion to hire Hydro One or other entities as service providers to assist with administering the Fund.
- The Trust would distribute funds to LDCs across the province (including Hydro One) at the discretion of the Trustees.
- LDCs would identify their respective eligible electricity customers and deliver the funding in accordance with the program.
  To protect public interest, it is expected that the Trust Deed will reflect an expectation that accountability provisions be included in funding provided to the LDCs which are consistent with those required under the TPAD.

Since the submission was received centrally, the Ministry has been working with the Office of the Provincial Controller Division (OPCD) on appropriate funding arrangements (Providing the funding to the Trust directly versus providing funding to Hydro One, who would provide it to the Trust) to ensure that the Province's and the Auditor General's respective abilities to audit the use of the funds is maintained under the Province's Transfer Payment and Accountability Directive and the Auditor General Act. The Ministry is currently working with H1 and its external advisors on this topic, and further details will be available shortly. At this time, it is not anticipated that such changes would impair ability to complete the transfer by March 31st.

Commented [SK81]: What is the rationale for Hydro One to administer trust and distribute funds? Is this related to the transmission system in any way?

Commented [SK82]: Why Hydro One?

Commented [BA3]: TPAD? Transfer Payment Acct Dir. Does this need to be spelled out?

Commented [SK84]: As H1 is outside the authority of the Auditor General, there can be a view that using H1 as a mechanism to deliver these services is to avoid scrutiny.

The Ministry indicates the measures funded through the Fund would be similar, or build on those available through the Home Assistance Program, and would specifically target customers who are otherwise not eligible for existing programs but could benefit from conservation programs.

- The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

Affordability Fund recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the Ministry indicates the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake. The large range takes into account the potential take-up of more expensive measures such as cold climate air source heat pumps which can range in cost from $7-$13K, and which can achieve significant electricity savings.

Performance Measurement:

The submission indicates that Hydro One would provide support to the Province in exercising its oversight of the program by collecting reports from the LDCs on behalf of the Province and/or submitting regular progress reports on program participation. The TPA with Hydro One will include details on reporting requirements. There is currently no mention of outcome measures in the submission but such details are expected to follow as planning progresses. The Ministry notes the government can outline broader principles and intended outcomes but specific outcome targets (like helped X homes result in Y savings) would be seen as prescriptive and in conflict with the Trust model.

The Ministry will create a grant agreement (i.e., A Transfer Payment Agreement) consistent with OPCD's guidance on one-time transfers and TPAD.

Risks:
Appendix C is the risk table submitted by the Ministry. Many of the Ministry's cited risk focus on the quick timing to put the program in place in 2016-17, oversubscription of funds, and underspending.

The Ministry also notes moderate risk with a high impact from flowing the funds into an independent trust account also for limited accountability, oversight, and transparency provisions. TBS staff note the list of accountability provisions provided by the Ministry above does not explicitly mention (nor does the submission elsewhere) the Transfer Payment Accountability Directive (TPAD) principle – Value for money is expected in the expenditure of government funds. TBS staff noted OPCD's one-time guidance is implicitly aligned with TPAD including value for money expectation.

TBS staff notes moderate risk around geographical representation of members in the Trust, lack of program design details (e.g., LDC and customer eligibility criteria) and lack of articulation of what success looks like for the program to ensure accountability. With the non-application based program structure, eligibility and selection criteria needs to be clearly established to pass the equity test.

Financials:
The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17 offset from the Treasury Board Contingency Fund.

- The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

- Administration expenses will be in accordance with the Transfer Payment Directive.

Commented [KJ5]: Slide 57-58 of Cabinet Deck. This is the stated logic for the creation of the Affordability Fund.

Commented [SK86]: Does it include installation of these measures?

- The Ministry expects that the funds through the Affordability Fund will be deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base. The Ministry intends to seek an exemption from the Cash Management Directive from the Ontario Financing Authority, MOF.

TBS staff note the March 1, 2017 minute was a commitment of up to $200M on a multi-year basis with direction to the Ministry Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

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Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	March 3, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEMD, TBS		

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From: John Kim
To: Bruno Amara
Subject: RE: Agenda for working group meeting?
Date: Monday, March 27, 2017 3:30:14 PM

These look good to me. In terms of the TBS process, ENE report back and what we kind of have to help stick handle in terms of the TB approval for the operating asset. Not sure if it needs discussing in detail other than to indicate that we're making progress?

John

From: Bruno Amara
Sent: Monday, March 27, 2017 3:09 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Agenda for working group meeting?

Do we need to discuss agenda.

- update from OPG re: OPG short term facility to accommodate GA asset purchase.
- Update TBS process: i.e., ENE to report back in spring
- Issue of share price determination
- Timing of Province's equity injection. Does it have to be after OPG and or OPG Trust equity injection?
- Other?

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Bruno Amara
To:	John Kim; Adam Prokop; Salman Qadir
Cc:	Shajee Kathirgamanathan; Gavin He
Subject:	RE: BN - GA Equity Injection Structure v7._Markup.docx
Date:	Monday, April 03, 2017 8:45:12 PM
Attachments:	BN - GA Equity Injection Structure v7._Markup4.docx

Good draft note. A couple of comments in attached. And one general comment. I think it's all pretty reader-friendly until the last section CONSIDEARSTIONS/POTENTIAL RISKS. Mainly about being able to read through and be able to understand fairly easily if there are a number of considerations/risks discussed. Or are all bullets related to one consideration/risk. But I didn't have any particular suggestion just now.

Bruno

From: John Kim
Sent: Monday, April 03, 2017 5:13 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

I reworked it a bit.

John

From: John Kim
Sent: Monday, April 03, 2017 4:32 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

What do you mean by the lock-up period?

From: Adam Prokop
Sent: Monday, April 03, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

Thanks John,

Responded to comments and reedited.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
Sent: Monday, April 03, 2017 4:12 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: BN - GA Equity Injection Structure v7._Markup.docx

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COMMERCIALLY SENSITIVE AND CONFIDENTIAL

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

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- The proposed timing for the legislation is May, early June.
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- OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the ~~proposed lock-up period ends~~'inflection' point where the ratepayers start to pay down the deferred GA.
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To:	John Kim; Salman Qadir
Cc:	Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject:	RE: BN - GA Equity Injection Structure v7._Markup.docx
Date:	Monday, April 03, 2017 6:32:11 PM
Attachments:	Equity Financing considerations.xlsx

Some potential considerations.

Kind regards,

Adam Prokop

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Sent: Monday, April 03, 2017 5:13 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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What do you mean by the lock-up period?

From: Adam Prokop
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Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

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Office: 416-315-6462
adam.prokop@ofina.on.ca

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Assumptions	
Interest rate	4%
2017-18	In millions
Province borrows (44% of GA)	$1,100
Equity Injection to OPG	$1,100
Price per share (in dollars)	$20.00
Number of shares (millions)	55
Interest cost to Province (annual)	$44

**Interest is less in first year as borrowing assumed to take place in June*

Assume that lock-up period ends in 8 years, **that there is no compounded interest**, and full payment of principal and accumulated interest by end of year 8.

Potential Options

Option 1 - Premium associated with the deferred interest repayments (common share redemption price)

	0	1	2	3	4	5	6	7	8	**Total**
Interest		$22	$44	$44	$44	$44	$44	$44	$44	$330
Principal										$1,100
Total repayment										$1,430
Number of shares (millions)										55
Price per share (redemption price)										**$26.00**
Redemption Premium										30.00%

Option 2 - Preferred Shares with a return equal to the 4% interest rate

	0	1	2	3	4	5	6	7	8	**Total**
Interest		$22	$44	$44	$44	$44	$44	$44	$44	$330
Dividends		($22)	($44)	($44)	($44)	($44)	($44)	($44)	($44)	($330)
Principal										$1,100
Total repayment										$1,100
Number of shares (millions)										55
Price per share (redemption price)										**$20.00**
Redemption Premium										0.00%

Option 3 - Dividends reinvested into shares

	0	1	2	3	4	5	6	7	8	**Total**
Interest		$22	$44	$44	$44	$44	$44	$44	$44	$330
Dividends										
Principal										$1,100
Total repayment										$1,430
Number of shares (millions)	55	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	71.5
Price per share (redemption price)										**$20.00**
Redemption Premium										0.00%

GBE Comparable - Hydro One

Hydro One has Series I and Series II preferred shares that redemption prices are equal to their par value of $25.
However, each has a set return (3.53% + five-year Government Canada bond reset every 5 years for Series I; 3.53% + 3-month T-bill reset quarterly for Series II).
The dividends are quarterly and cumulative.
The shares are redeemable by Hydro One Limited every fifth year for $25 for Series I and II, with Series II shares being redeemable at $25.50 after 5 years.

Additional Considerations

- The Province may have to borrow to finance its interest expense obligations from capital markets if it does not receive the cash interest payments from OPG; potential for the recovered amount from ratepayers (interest and principal) to be lower than the total principal, administrative, and interest costs from the GA structure.
- OPG could use the cash interest payments related to the Province's borrowing to reduce its borrowing requirements (or equity injections required from the Province).

- Main concern is the justification of the equity injection and what appropriate return can be quantified, including its form (e.g., dividend, premium, reinvestment), in order to prevent the existence of a benefit from the Province to OPG that could threaten OPG's GBE status.
- The Hydro One recapitalization used the potential loss of IPO value (if the PILS payment was funded through debt) for justification of the equity injection.

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To:	Adam Prokop; Salman Qadir
Cc:	Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject:	RE: BN - GA Equity Injection Structure v7._Markup.docx
Date:	Monday, April 03, 2017 5:13:02 PM
Attachments:	BN - GA Equity Injection Structure v7._ Markup3.docx

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Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx
Date: Monday, April 03, 2017 4:22:17 PM
Attachments: BN - GA Equity Injection Structure v7._ Markup2.docx

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OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC7]: Not quarterly?

Commented [JK8]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP10]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ211]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

-

~~ADDITIONAL CONCERNS~~CONSIDERATIONS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

- OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the equity injection for the 44% equity injection until the proposed lock-up period ends.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of the~~is~~ proposed structure is ~~hypothetically~~currently viewed as fiscally neutral on an accounting basis, there is some concern over the cash flow-through of this structure with no flow through of interest or dividends over time.
- The Province would~~ill~~ ~~have~~~~incurr~~incur interest associated with the debt it borrows to finance the 44% equity injection. OPG should have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments.
- The interest cost will continue to build during the lock-up period as more principal is borrowed, resulting in potentially billions of aggregate interest owed by the Province to the capital markets.
- It may be necessary to establish a flow-through of cash from OPG to the province through some type of return, such as a dividend ~~or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Province~~

Commented [AP12]: This is not necessarily true as an acceptable premium associated with the buyback feature would mitigate this concern. Maybe keep the subsidy issue separate as mentioned above? The main risk is that the Province will be paying several hundred millions to billions of interest over time with no cash flow from OPG. OPG in turn would have the same amount of cash on its books – either idle or used for their own initiatives.

- In order to reasonably guarantee ~~this~~a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield ~~related~~associated with ~~to~~ the interest cost of the Province's ~~related debt~~borrowing costs.

- This could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

Commented [JK13]: Explain. Is this risk to OPG Trust, OPG or the Province.

Commented [AP14R13]: Risk is to OPG Trust/OPG because, if preferred equity is issued, then it could be viewed as debt.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: Adam Prokop
To: John Kim; Bruno Amara
Cc: Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx
Date: Tuesday, April 04, 2017 9:22:12 AM

Thanks Bruno,

I saved the file in the folder and put my comments in Markup 5.

Kind regards,

Adam Prokop

From: John Kim
Sent: Monday, April 03, 2017 8:48 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: BN - GA Equity Injection Structure v7._Markup.docx

Thanks....wouldn't mind getting things to seem less read like before.

On Apr 3, 2017, at 8:45 PM, Bruno Amara <Bruno.Amara@ofina.on.ca> wrote:

> Good draft note. A couple of comments in attached. And one general comment. I think it's all pretty reader-friendly until the last section CONSIDEARSTIONS/POTENTIAL RISKS. Mainly about being able to read through and be able to understand fairly easily if there are a number of considerations/risks discussed. Or are all bullets related to one consideration/risk. But I didn't have any particular suggestion just now.
>
> Bruno
>
> ---
>
> **From:** John Kim
> **Sent:** Monday, April 03, 2017 5:13 PM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
> **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
> **Subject:** RE: BN - GA Equity Injection Structure v7._Markup.docx
>
> I reworked it a bit.
>
> John
>
> ---

From: John Kim
Sent: Monday, April 03, 2017 4:32 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

What do you mean by the lock-up period?

From: Adam Prokop
Sent: Monday, April 03, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

Thanks John,

Responded to comments and reedited.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
Sent: Monday, April 03, 2017 4:12 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: BN - GA Equity Injection Structure v7._Markup.docx

I know Bruno and Shajee are tied up on the narrative so took a quick look. Are my edits fair description of the interactions with OPG? Also, could you take a look at the comment?

<BN - GA Equity Injection Structure v7._Markup4.docx>

From:	John Kim
To:	Gavin He; Bruno Amara
Subject:	RE: CEFD and MO | Bi-Weekly
Date:	Tuesday, April 18, 2017 6:23:11 PM
Attachments:	Annotated Agenda MO April 18 2017_CEFD_Markup2.docx

Thanks….just some quick responses to the queries to get this done with.

From: Gavin He
Sent: Tuesday, April 18, 2017 4:54 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: CEFD and MO | Bi-Weekly

Hi John/Bruno,

Please find attached the comments and queries from Ron.

Regards,
Gavin He

From: Ronald Kwan
Sent: Tuesday, April 18, 2017 4:50 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

Hi Gavin,

See attached.

Ron

From: Gavin He
Sent: April-17-17 20:24
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

Hi Ron,

Please find attached the draft agenda for your review.

Please let me know if you have any questions.

Regards,

Gavin He

-----Original Appointment-----
From: Gavin He
Sent: Saturday, April 15, 2017 11:27 AM
To: Gavin He; Ronald Kwan; Marianne Nguyen (MCYS); Lesau, Victoria (MOF); Nancy Kennedy (MOHLTC); Vivienne Skoberne (MOHLTC); Scott Nelms (ENERGY); Colleen Waddell (ENERGY); Gwendolynne Young (ENE); 'Maimona, Mashoka (MOF)'
Subject: CEFD and MO | Bi-Weekly
When: Tuesday, April 18, 2017 1:30 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Deputy's Boardroom, 7th Floor, Frost South

Hi all,

This is a bi-weekly meeting invite for CEFD/DMO/MO. CEFD will provide an agenda prior to the meeting.

Regards,
Gavin He

ANNOTATED AGENDA
MO UPDATE: April 18, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Ontario Fair Hydro Plan – Equity Injection

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG continue to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff are working to establish clarity and steps required on the Provincial approvals for the equity injection~~; however, additional questions were raised during the discussion~~.
  - ~~Currently, parties are all hands on deck on the legislation drafting and the equity injection is expected to pick up soon after.~~

2. IESO Credit Facility – $975M for Market

~~At a senior level implementation working group looking at various aspects of the Global Adjustment deferral, the possibility of IESO relying on the $975M credit facility provided by the OFA to fund the short and the longer term financing until third party financing is obtained~~.

- IESO raised the potential requirements for ~~a) fund~~financing the Fair Hydro forecast variances ~~(short term), and b) funding the Fair Hydro amounts not purchased by the OPG SPV (long term)~~.
  - The possibility was raised of the IESO relying on the existing $975M credit facility provided by the OFA to provide short term financing until the OPG SPV purchases the IESO regulatory asset.
  - One of the main uses of the $975M credit facility is to provide liquidity into the electricity market to support various initiatives including the Regulated Price Plan (RPP), the Rural or Remote Electricity Rate Protection (RRRP), the new Ontario Electricity Support Program (OESP), the various conservation programs and overall market liquidity.
  - The $975M facility was not intended to provide long-term financing.
- If IESO required longer-term financing, ~~this would become an on-going, and potentially not just short-term, CEFD would be inclined to engage in~~ additional due diligence and considerations on term and rate, ~~certainty of recovery and~~ accounting treatment, and appropriate approvals would be required. ~~(given the conditions required by OPG's audit firm)~~
  - ~~, and~~ OEFC or OFA~~'s~~ involvement (other than managing the Provincial borrowing plan, including for any ~~the~~capital contribution / equity injection into OPG) in providing short or longer-term financing would potentially require government policy approval and a revised Minister's Directive~~, as this would potentially for a~~

Commented [RK1]: We should have a very brief item on the expected OPG BP TB submission and concurrence.

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Commented [RK2]: Rather leave this to a verbal discussion.

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Commented [RK3]: OFA finances all kinds of government activities, but the injection itself would be presumably done by the shareholding ministry, not the OFA – isn't that right? (Even if the mechanics are done through and by the OFA?)

Commented [JK4R3]: I'd agree but understand that during H1, there were some back and forth on this.

Commented [RK5]: I would be particularly concerned on the accounting – if this is in effect the flip side of financing a fiscal impact on consolidation of the IESO.

Commented [JK6R5]: Agreed.

purpose not discussed at the time the facility was provided (even if the facility does not explicitly restrict its use).

- In the Minister's Directive signed November 28, 2016, facilitates the lending agreement between the OFA and IESO until the end of 2019 and has the term restriction of 28 to 95 days, essentially providing short-term liquidity for the IESO.

3.1. IESO FOI Request

- The Independent Electricity System Operator (IESO) is processing a Freedom of Information request which includes requests for
  - A breakdown of generation costs by energy sources for the years 2007 to 2013, inclusively and 2015.
  - A breakdown of gas/oil generation costs for the years 2007-2015 between costs for energy purchased and cost of capacity.
- Staff have previously provided the following OEFC information to IESO which is used in the draft response to this request.
  - NUG cost information organized by fuel type and broken down into amounts recovered through the market and Global Adjustment.
  - Amounts paid under a Contingency Support Agreement between OEFC and OPG.
- None of the OEFC information that would be used in the response to the FOI request is commercially sensitive.
  - The NUG generation costs are aggregated by fuel type and combined with costs for other generators.
  - The Contingency Support Agreement payments are aggregated in an "other" category. These costs were also published in OPG's financial statements.

4.3. Alderville Insurance Claim

- Alderville Community Development Corporation (Alderville), a holder of a guarantee under the Aboriginal Loan Guarantee Program, has settled an insurance claim without the consent of the Province. Consent, which is required under the guarantee.
- The Project experienced a prolonged equipment failure from July 22, 2015 to December 5, 2015, with no electricity generation during this time (136 days).
- Alderville accepted a settlement of $597,099.74 less a $250K deductible or a net amount of $347,099.74, without seeking the consent of the Province.
- Internal estimates valued loss revenues from the business interruption to be closer to $400,000, which is not inconsistent with the amount on which the Borrower settled the claim.

- Staff, on learning of the settlement, ~~plan on~~ responding via email providing a gentle warning about the missed obligation under the guarantee.

~~5.~~4. ALGP: Coral Rapids

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), ~~is seeking~~has been provided a loan guarantee under the ALGP on April 18, as conditions precedent were fulfilled.
  - Th~~is~~e guaranteed loan ~~would~~ allows CRP to finance its investment in a partnership, which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station, at a lower interest rate than the alternative (a loan from its partner).
  - The briefing package was sent at the end of March and sign off for execution of the loan guarantee was received April 4th.
  - MoF Legal ~~is h~~oldingheld Minister Sandals' signatures in escrow until the conditions precedent are satisfied.
  - Financial close ~~i~~was planned for April 18 so that the borrower c~~an~~ould meet its equity contribution deadline.

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5. IESO FOI Request

- The Independent Electricity System Operator (IESO) is processing a Freedom of Information request which includes requests for
  - A breakdown of generation costs by energy sources for the years 2007 to 2013, inclusively and 2015.
  - A breakdown of gas/oil generation costs for the years 2007-2015 between costs for energy purchased and cost of capacity.
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  - Amounts paid under a Contingency Support Agreement between OEFC and OPG.
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  - The NUG generation costs are aggregated by fuel type and combined with costs for other generators.
  - The Contingency Support Agreement payments are aggregated in an "other" category. These costs were also published in OPG's financial statements.

OTHER ISSUES

6. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.
- Proposed amendments to FAA s.28 have been drafted to:
  - (i) give the Minister of Finance or the President of Treasury Board the authority to prescribe in regulation public entities or classes of public entities that would be subject to s. 28; and
  - (ii) give the LGIC the authority to make regulations to define terms used in section 28 that are not already defined in the Act.

7. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.
- A formal request from the Minister of Transportation to the Minister of Finance has been made.

8. FSCO – Stelco Pension Issue

- As part of a transaction that will allow Stelco to come out of bankruptcy, the parent of Stelco, US Steel, has proposed a sale to Bedrock Industries. This sale limits Bedrock's exposure to the pension plan liabilities.
- The Superintendent of FSCO will temporarily be the nominal administrator of Stelco's 5 pension plans and will be responsible for the related administrative contracts. As the Superintendent is also the regulator, he will subcontract this responsibility in a sole source contract to an administrator.
- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From:	John Kim
To:	Gavin He
Cc:	Ronald Kwan
Subject:	RE: CEFD and MO | Bi-Weekly
Date:	Tuesday, March 07, 2017 1:25:34 PM
Attachments:	Annotated Agenda MO March 07 2017_CEFD_v2_EFB_Markup2.docx

Pls. see attached.

Thanks,

John.

From: Gavin He
Sent: Tuesday, March 07, 2017 12:59 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: CEFD and MO | Bi-Weekly

Hi John

Please find attached the comments and edits from Ron.

Thanks,
Gavin He

From: Ronald Kwan
Sent: Tuesday, March 07, 2017 12:32 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

Hi,

Some edits, as attached.

Ron

From: Gavin He
Sent: March-07-17 11:54
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

Hi Ron,

EFB made some further edits to include OEFC lending to IESO update. Please find attached the

updated agenda for your review.

Regards,
Gavin He

-----Original Appointment-----
From: Christopher Pearce (MOI)
Sent: Monday, November 28, 2016 12:36 PM
To: Pearce, Christopher (MOF); Ronald Kwan; @FIN-R-TOR.7QueensParkCres.Deputy.Boardroom (MOF); Marianne Nguyen (MCYS); Gavin He; Nancy Kennedy (MOHLTC); Vivienne Skoberne (MOHLTC); Scott Nelms (ENERGY); Colleen Waddell (ENERGY); Maimona, Mashoka (MOF); Gwendolynne Young (ENE)
Subject: CEFD and MO | Bi-Weekly
When: Tuesday, March 07, 2017 3:00 PM-3:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Deputy's Boardroom, 7th Floor, Frost South

Bi-weekly meetings of CEFD/DMO/MO.

CEFD to set agenda and circulate in advance.

ANNOTATED AGENDA
MO UPDATE: March 07, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Trillium Trust:

Ministry of Finance is requesting a regulation be made under the Trillium Trust Act, 2014 to designate proceeds related to the Hydro One secondary offering in April 2016. The designated proceeds amount in the regulation does not include the shares purchased by OPG.

- The gains related to the shares purchased by OPG are not included at this time, as the gain is expected to be recorded in Public Accounts as deferred revenue in 2016-17.
- The submission is going forward to Treasury Board on March 21, 2017 and LRC on March 27, 2017. The regulation is targeted to be filed on March 31, 2017, so that the Trillium Trust balance in Public Accounts would reflect this amount.
- Work on regulations related to the PWU/SEP share sale and the shares purchased by OPG is on-going.

2. Trillium Trust drawdown:

TBS staff has communicated that given the level of spending expected for the GO RER in 2017/18 there may be overfunding between the federal contributions, green bonds, GGRA and Trillium Trust.

- Trillium Trust funding is the last to be called on, as overfunding would put federal contributions at risk and green bonds and GGRA are legal commitments.
- OFA staff will continue working with TBS as well as updating the drawdown profile as necessary.

3. Hydro One Brampton

- On February 28, 2017, the Province completed the sale of Hydro One Brampton to Alectra Utilities, a newly a newly merged local distribution company consisting of Enersource, Horizon Utilities, and PowerStream**.**

- OFA staff is working with OPCD to finalize transaction amounts to determine the final net revenue gains generated from the transaction to be dedicated to the Trillium Trust.

4. Global Adjustment Lawsuit Follow-ups

- There are several NUGs not involved in the lawsuit which have PPAs that contain similar terms and price provisions as those that were under consideration by the

courts. These NUGs entered into Standstill Agreements with OEFC (Standstill NUGs).
    - As OEFC's application for leave to appeal was unsuccessful, OEFC would also have to make retroactive payments to Standstill NUGs.
    - As all Standstill NUGs have either expired or been terminated early no additional go-forward payment adjustments would be required.

- OEFC has made retroactive payments to Standstill NUGs for 2016 through the normal rate adjustment process under the contracts.
    - OEFC is in the process of determining adjustments for the years prior to 2016.
    - OEFC will only be making retroactive payments to standstill NUGs for generation which occurred within the two year limitations period.

- As OEFC recovers the full cost of contracts through the Global Adjustment, including legal costs, there is no impact expected on the stranded debt. This recovery is done through the monthly settlement process of the IESO.

5. ALGP: Coral Rapids Conditional Offer Package

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), is seeking a loan guarantee under the ALGP. This loan would allow CRP to finance its investment in a partnership which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station at a lower interest rate than the alternative (a loan from its partner).
- The conditional offer letter was approved and an OIC was obtained at the December 13, 2016 LRC meeting.
    - This application involves the interests of a Schedule 1 bank.

- Due diligence and negotiation of legal/loan documents are ongoing. Key documents are expected to be finalized soon, with a target of March 8. Closing is expected shortly thereafter, although the exact date is to be determined. Staff request an approval to meet the closing date and execute the final loan guarantee agreement. Staff are available for a briefing if requested.

6. OEFC Lending to IESO

- The OEFC provides IESO ~~has requested that the Ontario Electricity Financial Corporation (OEFC) provide up to five-year extensions and increases of its~~ two current ~~outstanding~~ credit agreements:
    (1) Loan Agreement, originally dated April 1, 1999; and
    (2) Revolving Line of Credit ("Revolving Credit") Agreement originally dated April 23, 2010.

- The IESO has requested that the OEFC provide up to ~~five~~four-year extensions [TBD] and increases to the credit agreements:
    - ~~—~~A loan principal amount of $135 million (increase from the current $90 million loan), which will meet IESO's forecast of funding needs for capital

Commented [JK1]: Updated to match the written request.

expenditures to… maintain and upgrade market system and applications and infrastructure.

- A revolving credit facility of up to $145 million (increase from the current $95 million credit limit), ~~that ensures that the~~to provide IESO ~~will have~~ flexibility to meet its changing funding needs of ~~…~~short-term operating and working capital needs over the term of the agreement and provides additional borrowing room if required.
- Maintaining the 50 basis point spread on both agreements, as the spread is a cost the OEFC incurs on any outstanding debt and pays annually to the Minister of Finance.

- The current Agreements are set to expire on April 30, 2017.
  - The OEFC would seek~~requires~~ Directives from the Minister of Finance to extend the loan and credit facility. The Directives ~~are~~would be required before April 10, 2017 so that the OEFC and IESO can proceed to finalize and execute the respective agreements.

~~Staff recommend providing a Loan agreement and a Revolving Credit agreement for the 3-year term as requested. Staff also recommend:~~

- A detailed briefing package is ~~in the works~~under development and will be provided shortly.

Commented [RK2]: And explicitly excluding the GA deferral financing

Commented [JK3R2]: True, excluding GA.

Commented [RK4]: Why does it say 3 here vs 5 above?

Commented [JK5R4]: We're recommending 3 yrs. In the request, it says up to 4 yrs but in staff level discussions, 5 yrs has come up, I believe.

Commented [RK6]: And includes an assessment on the ability to repay?

ANNOTATED AGENDA
MO UPDATE: March 07, 2017

OTHER ISSUES

~~6.~~7. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA. Options may not require legislative amendments via Spring Bill.

~~7.~~8. College Class Exemption

- Proposed regulation as well as terms and conditions for the draft Binding Policy Directive for Colleges has been drafted and is currently being reviewed by college sector reps.

- MAESD and OFA to meet next week to review the s.28 approval process including timing and information requirements with a view to further streamlining the process.

~~8.~~9. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.

- A formal request from the Minister of Transportation to the Minister of Finance is forthcoming.

From: Gavin He
To: John Kim
Cc: Bruno Amara
Subject: RE: CEFD and MO | Bi-Weekly
Date: Tuesday, April 18, 2017 6:35:36 PM
Attachments: Annotated Agenda MO April 18 2017_CEFD_v2.docx

Hi John,

I accepted all the changes and added the OPG BP item too based on Ron's request. Could you please take a look and let me know if you are okay with this?

Thanks,
Gavin He

From: John Kim
Sent: Tuesday, April 18, 2017 6:23 PM
To: Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

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From: Ronald Kwan
Sent: Tuesday, April 18, 2017 4:50 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: CEFD and MO | Bi-Weekly

Hi Gavin,

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Ron

From: Gavin He
Sent: April-17-17 20:24
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This is a bi-weekly meeting invite for CEFD/DMO/MO. CEFD will provide an agenda prior to the meeting.

Regards,
Gavin He

ANNOTATED AGENDA
MO UPDATE: April 18, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Ontario Fair Hydro Plan – Equity Injection

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG continue to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff are working to establish clarity and steps required on the Provincial approvals for the equity injection.

2. IESO Credit Facility – $975M for Market

- IESO raised the potential requirements for financing the Fair Hydro forecast variances.
  - The possibility was raised of the IESO relying on the existing $975M credit facility provided by the OFA to provide short term financing until the OPG SPV purchases the IESO regulatory asset.
  - One of the main uses of the $975M credit facility is to provide liquidity into the electricity market to support various initiatives including the Regulated Price Plan (RPP), the Rural or Remote Electricity Rate Protection (RRRP), the new Ontario Electricity Support Program (OESP), the various conservation programs and overall market liquidity.
  - The $975M facility was not intended to provide long-term financing.
- If IESO required longer-term financing, additional due diligence and considerations on term and rate, accounting treatment, and appropriate approvals would be required.
  - OEFC or OFA involvement (other than managing the Provincial borrowing plan, including for any capital contribution / equity injection into OPG) in providing short or longer-term financing would potentially require government policy approval and a revised Minister's Directive.
- In the Minister's Directive signed November 28, 2016, facilitates the lending agreement between the OFA and IESO until the end of 2019 and has the term restriction of 28 to 95 days, essentially providing short-term liquidity for the IESO.

3. Alderville Insurance Claim

- Alderville Community Development Corporation (Alderville), a holder of a guarantee under the Aboriginal Loan Guarantee Program, has settled an insurance claim without the consent of the Province. Consent is required under the guarantee.
- The Project experienced a prolonged equipment failure from July 22, 2015 to December 5, 2015, with no electricity generation during this time (136 days).

Commented [RK1]: We should have a very brief item on the expected OPG BP TB submission and concurrence.

Commented [GH2R1]: Updated.

Commented [RK3]: OFA finances all kinds of government activities, but the injection itself would be presumably done by the shareholding ministry, not the OFA – isn't that right? (Even if the mechanics are done through and by the OFA?)

Commented [JK4R3]: I'd agree but understand that during H1, there were some back and forth on this.

Commented [RK5]: I would be particularly concerned on the accounting – if this is in effect the flip side of financing a fiscal impact on consolidation of the IESO.

Commented [JK6R5]: Agreed.

- Alderville accepted a settlement of $597,099.74 less a $250K deductible or a net amount of $347,099.74, without seeking the consent of the Province.
- Internal estimates valued loss revenues from the business interruption to be closer to $400,000, which is not inconsistent with the amount on which the Borrower settled the claim.
- Staff, on learning of the settlement, responding via email providing a gentle warning about the missed obligation under the guarantee.

4. ALGP: Coral Rapids

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), has been provided a loan guarantee under the ALGP on April 18, as conditions precedent were fulfilled.
    - The guaranteed loan allows CRP to finance its investment in a partnership, which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station, at a lower interest rate than the alternative (a loan from its partner).
    - The briefing package was sent at the end of March and sign off for execution of the loan guarantee was received April 4th.
    - MoF Legal hheld Minister Sandals' signatures in escrow until the conditions precedent are satisfied.
    - Financial close was planned for April 18 so that the borrower could meet its equity contribution deadline.

5. IESO FOI Request

- The Independent Electricity System Operator (IESO) is processing a Freedom of Information request which includes requests for
    - A breakdown of generation costs by energy sources for the years 2007 to 2013, inclusively and 2015.
    - A breakdown of gas/oil generation costs for the years 2007-2015 between costs for energy purchased and cost of capacity.
- Staff have previously provided the following OEFC information to IESO which is used in the draft response to this request.
    - NUG cost information organized by fuel type and broken down into amounts recovered through the market and Global Adjustment.
    - Amounts paid under a Contingency Support Agreement between OEFC and OPG.
- None of the OEFC information that would be used in the response to the FOI request is commercially sensitive.

- The NUG generation costs are aggregated by fuel type and combined with costs for other generators.
- The Contingency Support Agreement payments are aggregated in an "other" category. These costs were also published in OPG's financial statements.

6. OPG 2017-19 Business Plan

- OPG has submitted its 2017-19 Business Plan to the Ministry of Energy for concurrence, and the Plan will be submitted to the Treasury Board for approval in May.
- CEFD is currently reviewing the TB submission materials and will work with TBS on the assessment note.

OTHER ISSUES

~~6.~~7. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.
- Proposed amendments to FAA s.28 have been drafted to:
  - (i) give the Minister of Finance or the President of Treasury Board the authority to prescribe in regulation public entities or classes of public entities that would be subject to s. 28; and
  - (ii) give the LGIC the authority to make regulations to define terms used in section 28 that are not already defined in the Act.

~~7.~~8. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.
- A formal request from the Minister of Transportation to the Minister of Finance has been made.

~~8.~~9. FSCO – Stelco Pension Issue

- As part of a transaction that will allow Stelco to come out of bankruptcy, the parent of Stelco, US Steel, has proposed a sale to Bedrock Industries. This sale limits Bedrock's exposure to the pension plan liabilities.
- The Superintendent of FSCO will temporarily be the nominal administrator of Stelco's 5 pension plans and will be responsible for the related administrative

contracts. As the Superintendent is also the regulator, he will subcontract this responsibility in a sole source contract to an administrator.

- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From: Bruno Amara
To: John Kim
Subject: RE: Check this email
Date: Thursday, April 06, 2017 5:32:43 PM

I'm looking at it now. I think we will. I want to meet with Adam/Shajee early tomorrow to clarify a few things.

-----Original Message-----
From: John Kim
Sent: Thursday, April 06, 2017 5:32 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Check this email

Could you get a sense from Shajee and Adam on the equity injection drafting? Mainly hoping to get a sense of if we have enough materials for a boardroom chat with SIFB tomorrow.

FYI, I might go visit the legal huddle at Blake tomorrow between 10am to long enough to get a free lunch. :)

-----Original Message-----
From: Ronald Kwan
Sent: Thursday, April 06, 2017 5:24 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: Check this email

Hi John,

I saw him at sign-off. He did not bring it up.

Ron

> On Apr 6, 2017, at 5:22 PM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> Hi Ron,
>
> Not sure if you had a chance to connect with Scott.
>
> If not heard from them by tomorrow, the working group will have to let OPG know of the delay. The request was mostly from OPG to have some information.
>
> Thanks,
>
> John
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: Wednesday, April 05, 2017 10:12 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: Check this email
>
> Hi John,
>
> Thanks for the heads up.
>

> Ron
>
>> On Apr 5, 2017, at 9:03 PM, John Kim <John.Kim@ofina.on.ca> wrote:
>>
>> Hi Ron,
>>
>> Not sure what their position is but may be the case of....1. we didn't like the note they first drafted and 2. they are not happy with ours.
>>
>> I'm happy to work to reconcile.
>>
>> John
>>
>> _____
>> From: John Kim
>> Sent: April 5, 2017 8:54 PM
>> To: Ronald Kwan
>> Subject: Fw: Check this email
>>
>> FYI, you may get a call from Scott.
>>
>> John
>>
>> _____
>> From: Leung, Thomas (MOF) <Thomas.Leung@ontario.ca>
>> Sent: April 5, 2017 8:40 PM
>> To: John Kim
>> Cc: Adam Prokop; Shajee Kathirgamanathan
>> Subject: RE: Check this email
>>
>> John,
>>
>> Thanks for the quick chat today and sending over the draft. I've talked to Scott about your note, and he asked that OFA hold off for now on sending anything to OPG. He would like more time to consider it, and perhaps warrants a conversation with Ron.
>>
>> Thanks,
>>
>> Thomas.
>>
>> From: John Kim
>> Sent: Wednesday, April 05, 2017 3:16 PM
>> To: Adam Prokop
>> <Adam.Prokop@ofina.on.ca<mailto:Adam.Prokop@ofina.on.ca>>
>> Cc: Shajee Kathirgamanathan
>> <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@of
>> ina.on.ca>>
>> Subject: Check this email
>>
>> Thomas Leung (MEDTE/MRI)
>> <Thomas.Leung@ontario.ca<mailto:Thomas.Leung@ontario.ca>>
>>
>> Y. John Kim
>> Director, Electricity Finance Branch
>> Corporate & Electricity Finance Division Ontario Financing Authority
>> Ph: 416-212-6996
>> Email: john.kim@ofina.on.ca<mailto:john.kim@ofina.on.ca>

>>
>>
>> _____
>>
>> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Emily Kerr
To: Ronald Kwan; John Kim
Cc: Gavin He
Subject: RE: Class B
Date: Tuesday, March 14, 2017 10:09:39 AM
Attachments: CBN - Electricity Price Mitigation.pdf

Pages 3 and 4 of the pink note from the March 1 Cabinet submission (attached) have the following definitions. (I added material in bold for the class A definition to note the proposed lowering of the threshold to 500 kW.)

Regulated Price Plan (RPP) – Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.

Class A Consumer – Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types. **[The March 1, 2017, Cabinet submission from Energy proposed to expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts. The expansion would be targeted to manufacturers.]**

Non-RPP Class B Consumer – Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

From: Ronald Kwan
Sent: Tuesday, March 14, 2017 10:01 AM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Class B

Hi,

Looping in Emily, in case SPFB has something handy.

Ron

From: Gavin He
Sent: March-14-17 09:59

To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: Class B

Hi John,

Our MO is wondering if we have a chart or short bullets that define RPP, Class A, and Class B consumers. Do we have one handy?

Thanks,
Gavin He

From: Nguyen, Marianne (MOF) [mailto:Marianne.Nguyen@ontario.ca]
Sent: Tuesday, March 14, 2017 9:56 AM
To: Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Class B

Hi Chris – Do you have a handy chart or short bullets that define RPP vs Class A vs Class B consumers?

Ontario

CABINET BRIEFING NOTE

Energy

Electricity Price Mitigation

Cabinet (info) Feb 15, 2017	TB/MBC Mar 1, 2017	Cabinet Mar 1, 2017	Announcement Mar 2017	LRC / Cabinet Spring 2017	Introduction Spring 2017	Effective Date July 1, 2017

This government's commitment	"We're going to come out with what we can do [on hydro bills] before the budget," – Premier Wynne, Jan 18, 2017 "And that's why … I've committed to finding more ways to lower rates, to reduce the burden on consumers, and we're going to be working on that in the weeks and the months ahead. And, in fact, that work is well underway. I'm listening to the people of the province. I'm listening to the people who run our system. And I am going to make changes because it's the right thing to do." – Premier Wynne, speech at Economic Club of Canada, Jan 19, 2017

SUMMARY OF PROPOSAL

Note: this note is based on a draft submission

The Ministry of Energy is seeking approval to implement electricity price mitigation initiatives that would provide additional rate relief to Ontario electricity ratepayers. While the actual benefits would be variable based on consumer class and consumption, the proposal is projected to provide about 25% in rate relief (including the 8% announced in 2016) for a typical residential consumer (i.e., based on a Toronto Hydro customer consuming 750kWh per month in 2017).

The proposal aims to smooth the impacts of the Global Adjustment (GA), help the most vulnerable Ontarians through enhancements to electricity support programs through tax-base funding and work to bend the future cost curve of electricity. Initiatives for approval include:

1. Subject to legal, accounting and financial risk assessments, financing a portion of the GA costs in order to reduce costs for ratepayers in the near term and spread the impacts of the GA across ratepayers over a longer period of time, specifically by:

- subsidizing rates in the short term, i.e. by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month
- bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021
- from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding around 10% of total electricity costs.

2. Subject to legal, accounting and financial risk assessment, expanding the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO), and using other mechanisms, including putting in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs.

3. Lowering the Industrial Conservation Initiative (ICI) threshold to provide additional rate mitigation targeted at specific Class B electricity consumers groups (e.g. manufacturing), in particular manufacturing companies, with additional flexibility to encourage take-up, and explore additional rate mitigation residential tenants that are not sub-metered and report back to Cabinet and TB/MBC with options in winter 2017.
4. Enhancing electricity support and conservation programs and shifting the costs of those programs from rate payer funded to government funded:
   - Broadening the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution cost for customers with the highest distribution rates;
   - Expanding the Ontario Electricity Support Program (OESP);
   - Establishing a new one-time Affordability Fund in 2016/17; and
   - Eliminating the delivery charge for First Nations customers on reserve.
5. Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for OEB red-tape reduction and future LDC efficiencies and rates.
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.
   - Explore additional cost savings to future electricity rates as part of the 2017 Long-Term Energy Plan to help offset the impact of GA recoveries.

The proposal will require a number of legislative, regulatory and policy changes, while working to maintain existing public policy objectives such as: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

The GA refinancing proposal includes policy approval to amend the legislated authority of OPG and IESO to enable appropriate cost recovery and settlement mechanisms, and of the OEB to ensure appropriate regulatory oversight.

In order to avoid the cost of GA refinancing impacting the province's fiscal plan, the proposed mechanism to partially defer the GA costs must meet legal, accounting, and financing requirements. This analysis will not be completed until the proposed legislation is finalized. If these requirements cannot be met, the cost of the GA refinancing would come onto the province's fiscal plan, creating a fiscal exposure of about $2.5 billion in 2017/18 and increasing in subsequent years (see table on p. 4). If GA refinancing is included in an announcement prior to confirmation of these requirements, the government would not be able to comment on the impact on the fiscal plan. Rather, the government could explain its intention to draft legislation to ensure legal, accounting and financial requirements are met so not to have a fiscal impact.

Terms you need to know

- **Global Adjustment (GA) –** Amount that accounts for differences between the market price of electricity and rates paid to regulated and contracted generators and for conservation programs. The GA is collected from all electricity ratepayers in Ontario.
- **Local Distribution Companies (LDCs) –** Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge –** The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
  - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.
- **Regulated Price Plan (RPP) –** Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **Customer classification for Hydro One –** Customer service types are determined by the kind of electricity service as well as by density – how many customers there

are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers'.

- **Ontario Power Generation (OPG) –** A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half of Ontario's electricity.
- **Ontario Energy Board (OEB) –** A Crown Agency that independently regulates Ontario's electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO) –** An independent corporation and agency of the Ministry of Energy that operates the electricity market in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province's transmission lines, including interties with other jurisdictions.
- **Class A Consumer –** Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types.
- **Non-RPP Class B Consumer –** Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

What is the expected cost to government[1]?

The total cost of the proposal is $2.7B in 2017/18, $665M funded through the fiscal plan and $2.5B to be funded through the electricity rate base subject to confirmation legal, accounting and financial requirements.

Cost Impact ($M)	2016-17	2017-18	2018-19	2019-20	2020-21
Moving Social Programs to Government-Funded (details provided in the chart below)	200	665	753	829	892
GA Financing[2]		2,534	2,668	2,942	3,420
Cumulative total - Bills Lowered by 25%, RPP-Eligible Only*		3,199	3,421	3,771	4,312

For the social programs, the current estimate for the proposal is $200M in 2016/17 for the Affordability Fund (a one-time cost). The current estimate for the combined impact of the non-Global Adjustment initiatives that would begin in 2017/18 is expected to be $738M in

[1] Assumes the required legal, accounting and financial requirements can be met to avoid a fiscal cost to the government.
[2] Assumes the necessary legal, accounting and financial requirements are not met.

2017/18, growing to $828M in 2018/19 and rising. This represents an additional pressure on the plan. These estimates are based on variable inputs such as future energy consumption of various consumer groups.

Fiscacl Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate base.

The impact of moving program funding from rate payer funded to government funded would result in approximately $2 savings/month for a typical residential consumer.

If the proposed legal and accounting treatment of the GA refinancing proposal is not implemented, there would be an immediate, negative impact on the province's fiscal plan. In this case, the ministry is directed to report back with options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan. The table below shows the projected fiscal impact based on bills being lowered, in combination with the existing 8% Ontario Rebate for Electricity Consumers and shifting existing OESP and RRRP costs to the government, by an estimated 25% for a typical, average household consuming 750 kWh per month.

The exact impact of refinancing the GA is unknown at this time. The intent is to establish a structure in which the GA cost recovery deferral is recorded as a regulatory asset by the IESO (which is sold to the OPG Trust), supported at its foundation by the fact that the legislation to defer the GA cost recovery is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG Trust would ultimately take on the risk and responsibility of financing the deferral through debt financed from OPG and external sources. OPG's debt would be funded through a combination of an equity investment by the Province and external financing. Such a structure would result in increased gross debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that Provincial debt, increased net investment in OPG (to offset the Provincial borrowing for no net debt impact), and increased earnings of OPG. Until the structure has been fully developed, which includes development of the legislation and assessing its fiscal impact which is dependent on the accounting analyses, it cannot be confirmed that the amounts deferred would not increase the government's annual deficit (or reduce its surplus) and/or

net debt. It should be noted that one of the requirements of the structure is that the government would backstop the financing if a future government were to ever revoke or change the legislation. In other words, the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time and could increase the risk to the fiscal plan. However, it is likely that external borrowing by the OPG Trust would be at a higher interest cost than Provincial borrowing costs, which would affect the carrying costs that would need to be recovered from ratepayers in the future. Based on the current stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province.

There is inherent risk in the financial estimates because the calculations are highly dependent on forecasts of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions and accounting assumptions. In addition, under the proposal, electricity prices would increase around 10% above forecast residential monthly bills from 2028 to 2047.The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's ability to address electricity rate concerns in the future.

How will the changes be communicated?

On March 2, 2017, the Premier is scheduled make a high profile announcement of additional relief to reduce electricity costs for Ontarians. To coincide with this event, there will be a news release with backgrounders, a technical briefing of the media, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is undertaking to reduce electricity costs.

Given the continued high risk that the GA financing may have a fiscal impact, the communication will need to be clear that the government's intent is to draft legislation to ensure legal, accounting and financial requirements are met so not to have a fiscal impact.

CABINET OFFICE ANALYSIS

The proposal aims to provide further rate relief to Ontario electricity ratepayers. The proposal builds on earlier electricity rate mitigation initiatives, including the ending of the Debt Retirement Charge (DRC) for residential consumers, the 8% rebate on all RPP-eligible electricity bills, the enhancement of RRRP and the expansion of ICI for industrial consumers (all announced in September 2016). The proposal is projected to provide about 25% in rate relief in aggregate (including the 8% announced in 2016) for a typical residential consumer (i.e., based on a Toronto Hydro customer consuming 750kWh per month in 2017).

Since 2010, electricity prices have risen considerably in Ontario, particularly for families and small businesses. Ontario's electricity prices are among the highest of any Canadian jurisdictions, but are comparable to many neighbouring US jurisdictions. Primary contributors to the price increase in Ontario are new investments in generation, transmission and distribution. Addressing the price of electricity is among the highest priorities for Ontarians. Prices are forecast to continue to increase as additional renewable energy generation is brought online and nuclear units are refurbished. Ontario currently provides rate mitigation to various electricity consumers through a combination of tax-based and rate-based programs. Rate-based programs are funded by shifting costs from one electricity consumer group to another. However, smaller manufacturing firms in Class B do not benefit from the current ICI program or financial relief to Households.

Electricity bills contain several line items. The electricity consumption line for consumers on the Regulated Price Plan breaks down usage into the different periods by price (off peak, peak, mid peak). The delivery line covers the cost of getting electricity from generating stations to homes and businesses. There are three components to the delivery line: transmission (i.e., moving electricity from generating stations to the distribution system), distribution (i.e., moving electricity from the transmission system to homes and businesses) and line loss (i.e., costs to recover electricity that is lost as heat when it is delivered over a power line). The distribution charge is currently the largest component (60% to 80%) and is recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over the next 5 years (8 years for Hydro One). The efficiency and performance of individual LDCs also impact the delivery costs for consumers.

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to four years, with the next LTEP scheduled for release in the spring of 2017. LTEP principles that will guide decision-making are affordability, reliability, clean energy, community and Indigenous engagement and conservation and demand management. Through extensive consultation with the public, stakeholders and Indigenous partners through the fall of 2016, the Ministry has identified key priorities, and this submission combined with new policy or program announcements in the LTEP will provide the comprehensive future planning perspective for Ontario's energy sector.

Under the proposal, all electricity consumers would benefit from one or more of the proposed electricity price mitigation initiatives by July 1, 2017. Additional supports for Class B consumers would be provided under an expanded ICI program and consideration will be given to providing support to residential tenants that currently don't benefit directly from rate mitigation measures.

1. Refinancing Global Adjustment in order to defer ratepayer costs

The GA accounts for the difference between generation costs (contracted and rate-regulated) and the wholesale market price, helping to recover fixed costs, including capital costs, of putting in place and operating Ontario's generation fleet, fixed generation costs, such as nuclear contracts, as well as the cost of conservation programs. The GA is

instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available. The GA has risen over the past decade as the province has invested in greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, and wholesale market prices have been low due to low demand and natural gas prices.

Many of the contracted generation assets are expected to have useful lives that extend beyond the term of their current financial contracts (typically 20 years). Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives can provide benefits to the electricity system over many years.

The proposal defers some of the current costs to ratepayers by recognizing the longer term benefit of these assets to the electricity system (similar to extending and re-financing a mortgage). The proposal is based on the assumption that some generation assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets in the future.

According to a legal opinion by former Supreme Court Justice Binnie, the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge and it being deemed a tax.

The result of the 25% reduction proposal is that costs for typical residential consumers would be lowered by $26/month with total bill increases kept in line with inflation for approximately 4 years, by borrowing money. Costs would increase to above the true cost of GA until the borrowed money, interest accumulated on the debt and the cost of administering the program is repaid fully in 2048 (see chart on page 19).

The projected residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month. Actual ratepayer savings would vary due to differences in consumption patterns and LDCs.

Accounting, financial and legal analyses are ongoing and will inform an assessment of the feasibility of this proposal. If these analyses do not support the use of the non-fiscal model described in this submission, and the government proceeds to make the announcement later this week, the government is at risk that the proposed mechanism would impact the provincial deficit by up to $2.5 billion a year. Should this be the case, the ministry will report back to Cabinet with options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan.

Those ineligible to receive the GA rate relief can benefit from one or more of the other initiatives under this proposal (e.g., OESP, RRRP proposals).

2. Mechanism to Defer GA costs

The intent is to establish a structure in which the GA deferral is recorded as a regulatory asset by the IESO, supported at its foundation by the fact that the legislation to defer the GA is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG would ultimately take on the risk and responsibility of financing the deferral by purchasing monthly regulatory assets from the IESO. The OPG would finance these purchases through a combination of an equity investment by the Province and external private sector financing. Such a structure would result in increased gross debt of the

Province (to finance the equity injection in OPG), increased interest on debt related to that external debt, increased net investment in OPG, and increased earnings of OPG. If structured properly, the underlying regulatory asset would offset the additional debt to not impact the province's net debt.

Until the structure has been fully developed, which includes development of the legislation and assessing its impact on the accounting analyses, it cannot be confirmed that the amounts deferred for ratepayers would not increase the government's annual deficit. It should be noted that one of the requirements of the structure is that the legislation be written to avoid the possibility of being revoked with wording to ensure OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from private lenders is unknown at this time. Based on the current stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province.

OPG is currently exploring creating a Special Purpose Vehicle (SPV) or Trust ("OPG Trust") to finance the GA. The SPV/Trust will be consolidated by OPG, giving OPG the appropriate powers to impact its exposure to variability of the income in the trust. The variability will likely largely result from the financing of the Trust, and therefore OPG will have the ability to direct the financing of the Trust and both benefit from its financing strategy and be at risk as a result of it.

Assuming that all legal, accounting and financial requirements can be met, the proposed structure is expected to result in: (1) increase in provincial gross debt offset by an equivalent in regulatory assets resulting in no change in net debt, and (2) an increase in interest on debt paid by the province offset by higher earnings from OPG resulting in no impact on annual deficit of the province.

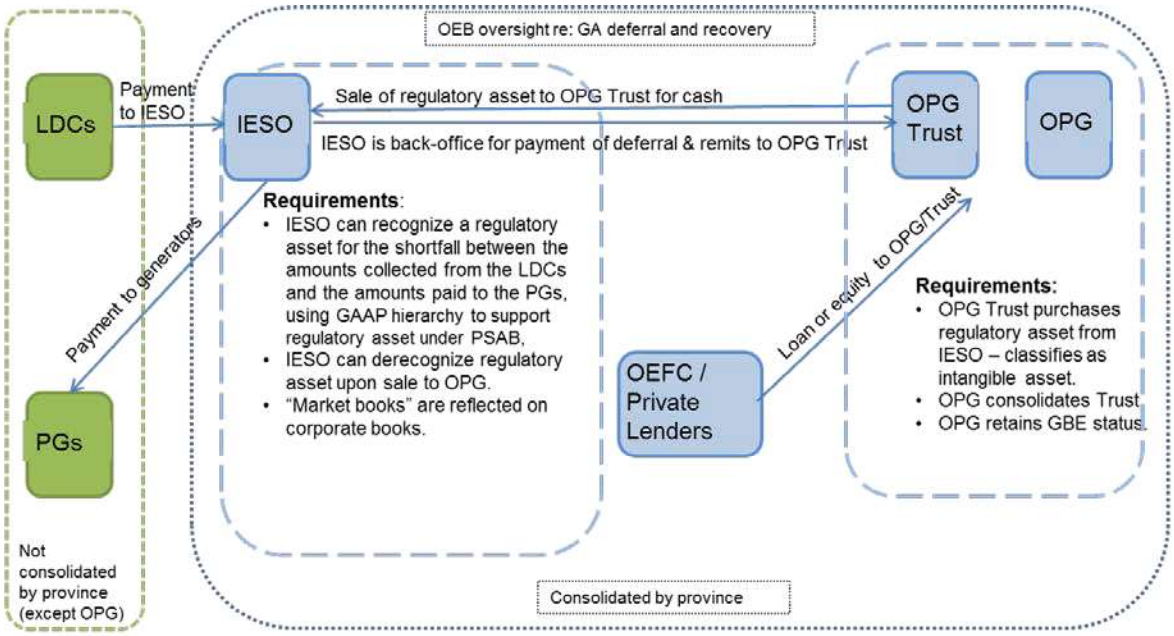
The analysis of the structure with respect to accounting, legal and financial risk is not complete; several key requirements remain outstanding:

- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
    - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
    - IESO can derecognize regulatory asset upon sale to OPG; and
    - "Market books" are reflected on corporate books.
    - In addition to these requirements, it will also be necessary to establish who will act as the regulator as in order to have a regulatory asset, a regulator is required. The ministry is working with the OEB about their potential regulatory role.

- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.

If a mechanism can be structured that satisfies these requirements, there remain some fundamental risks that the province would need to accept:

- Government would have no ability to control electricity prices resulting from these changes;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work; and
- Private lenders would likely require a guarantee, break fee or other backstop because government cannot commit to the legislation being irrevocable.



Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

The ministry continues to work with TBS, MOF, the IESO, the OPG and their external auditors for IESO and OPG on an appropriate structure and will report back to Cabinet with the proposed structure for approval in winter 2017.

3. Support for Class B electricity consumers and Residential Tenants

Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers, large commercial buildings and broader public sector facilities. There are several energy efficiency programs for Class B consumers; however, these consumers are too large for the RPP and so do not qualify for the 8% rebate or too small for other support programs such as the Industrial Conservation Initiative (ICI).

The Ministry of Energy is proposing to expand the eligibility threshold for ICI that will provide Class B consumers the opportunity for electricity costs savings. The expanded ICI would include:

- Extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts;
- Targeting eligibility to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing); and
- Providing small manufacturers with greater flexibility in meeting ICI requirements.

Under the expanded ICI, larger Class B consumers whose electricity demand is currently too low to qualify for ICI, would now be eligible for the expanded ICI if they wish to participate. In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign.

Currently, residential tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent. Tenants who pay for their own electricity will receive electricity costs savings directly through their bills. Low-income tenants who pay their own electricity bills can access existing energy support programs, such as the Ontario Electricity Support Program, administered by the Ontario Energy Board. The Ministry of Housing has identified that it may have limited tools to address rate mitigation for all tenants who are not suite metered. The ministry will explore options for providing energy rebates directly to tenants who are not sub-metered and whose rent includes electricity.

4. Enhancing electricity support and conservation programs and shifting cost from rate payer funded to government funded:

RRRP Enhancement (Delivery Charge Relief):

Currently, RRRP is a $241.9M program paid for by the ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial. RRRP helps to offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province, including Hydro One R2 customers. The delivery charge includes a distribution cost, which can vary across LDCs, and distribution costs are highest for Hydro One R2 and R1 (medium density) customers.

There are also some LDCs with relatively high distribution costs that, when coupled with high consumption patterns, can result in very high bills for consumers (Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma).

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges. The OEB found that fixed distribution charges would establish a fairer way to recover the costs of providing distribution service, and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning. The ministry proposes to provide support on the delivery portion to those most in-need by:

- Moving the RRRP from rate payer funded to a government funded program; and
- Harmonizing the fixed distribution rates to the lowest distribution cost of the LDCs mentioned above at $38/month (which is the forecast rate for Northern Ontario Wires). If the costs of another LDC moved above these in the future, a regulation change would be required to for that LDC to receive RRRP.
- These enhancements are expected to benefit approximately 800,000 customers in Ontario.

For this portion of the proposal, targeted RRRP consumers would see additional savings on their monthly bill that would vary based on their consumption level and cost to fiscal plan would be $459M in 2017/18, $243M of which is a transfer of existing programs to the tax base.

Ontario Electricity Support Program (OESP) Expansion:

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by providing a rebate directly on electricity bills. The program was launched in January 2016 and has had roughly 30% enrolment. There are two benefit scales; the basic program credits by income and household size (credits range from $30/month to $50/month); the enhanced benefit credits for Indigenous, electric heat consumers and certain medical devices (credit ranges from $45/month to $75/month).

The ministry is proposing to:

- Move the OESP from rate payer funded to government funded; and
- Increase the existing benefit scales by 50% and provide additional credits to more households.

For this portion of the proposal, the basic OESP benefit scale would increase from $30-$50 to $45-$75 a month and the enhanced OESP benefit scale would increase from $45-$75 to $68-$113 a month for eligible consumers and the cost to fiscal plan would be $186M in 2017/18.

New Affordability Fund

The existing Home Assistance Program provides eligible low-income customers with energy efficiency upgrades (such as new energy efficient appliances, energy-saving light bulbs (LEDs), power bars, and other energy efficiency measures) and education, at no cost, to help improve the energy efficiency and comfort of their homes. Program eligibility

is aligned with other low-income support programs such as the OESP and the program is delivered by LDCs.

The low income household definition is derived from Statistics Canada's income measures. The most commonly used measure is the after tax Low Income Measure (LIM), which takes into account household size. Some electricity customers who struggle to pay their electricity bills do not meet the definition of a low-income household and therefore are not eligible for the Home Assistance Program.

The ministry is proposing to:

- Establish an Affordability Fund in 2016/17 that would help struggling customers who do not qualify for low income conservation programs and cannot undertake energy efficiency measures without financial assistance. The Fund would be paid for by the government with a one-year fiscal impact of $200M in 2016/17 and be administered by an independent trust.
- Over time the Fund could help targeted customers, based on standardized eligibility criteria get back on track with their bills and also avoid disconnection costs by assisting them to lower their bills through energy conservation.

Measures available in the Home Assistance Program could include:

- Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating);
- Programmable thermostats, weather stripping, insulation (in homes with electric heating); and
- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps can range in cost from $7,000 to $13,000.

The government has created a new climate change agency as committed through the Climate Change Action Plan, which will serve as a one-window for the delivery of climate change-related programs (e.g., conservation programs), including those delivered by LDCs. ENERGY and MOECC will work together to avoid consumer confusion with respect to the support this Fund will provide alongside the newly established Climate Change agency.

<u>On-reserve First Nations Delivery Credit</u>

First Nation and Political-Territorial Organization leaders have advocated for the need for electricity rate relief for on-reserve customers and the review of delivery charges associated with transmission and distribution within the context of historical grievances. In this instance, historic grievances relate to lands affected by energy developments (e.g. transmission infrastructure built on reserve lands where the First Nation may not have been consulted, or in some cases transmission infrastructure may cut reserve lands in half, thereby limiting the use of the land base).

A Grievance Table process was established at the request of the Chiefs of Ontario as a part of the process of broadening the ownership of Hydro One. The cost of electricity and delivery charges were identified as the main priority at this table. At the request of the Minister of Energy, the OEB worked with the Chiefs of Ontario to develop options to address these issues. The ministry is proposing to implement the recommendations of the OEB's report.

The ministry is proposing to:

- Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.
- Automatically qualify on-reserve First Nations residential customers (~21,500 customers)
- Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers in 2017.

This proposal would be funded by the government ($20M annually) and provide on-reserve First Nation customers an average monthly benefit of $85.

5. Ongoing activities to bend the future cost curve of electricity:

<u>OEB – opportunities for OEB red-tape reduction and future LDC efficiencies</u>

The OEB has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates. The OEB has been working to move the distribution sector towards a performance/outcomes-based regulatory framework.

Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities. In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities over the first ten years after consolidation.

Opportunities:

- ENERGY could ask the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- The OEB could be instructed to review business cases behind its own regulatory requirements to reduce "red tape" and eliminate costs that LDCs indicate are creating pressures on operating expenses.

This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the Ontario Energy Board Act, 1998, and/or the 2017 Mandate Letter and other agency business planning processes.

IESO – Modernize Ontario's electricity market through electricity Market Renewal initiatives

Current IESO Market Renewal initiatives include:

- Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
- Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.

Changes related to IESO's Market Renewal initiatives, reflected in the wholesale electricity price and uplifts, are estimated to save at least $200 million per year, starting in 2021.

Expected Impacts of the Proposal on Electricity bills:

The projected impact of this proposal to an average residential customer bill in July 2017 is up to a 25% decrease, followed by an increase in price over time. This includes the 8% rebate that came into effect on January 1, 2017.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: *Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to*

existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

Stakeholder Considerations:

General public (including residential and small businesses) – Likely support a proposal that is projected to provide up to 25% in rate relief (including the 8% announced in 2016) for a typical residential consumer to, but likely to question the longer term implications. Ability of the public to understand current and recent changes will heavily depend on government communications.

Large Industrial and Commercial Consumers – Will continue to be concerned with the impact of cap and trade on electricity prices and the commitment in the Climate Change Action Plan to use GGRA funds to "keep electricity rate affordable".

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness. Although Class A electricity consumers have access to ICI, they are also concerned about the impact of cap and trade on their electricity costs. They are expecting that GGRA funds will be used to mitigate their costs. There is an expectation government is going to take specific action to mitigate their increases due to Cap & Trade, and given the initiatives proposed in this submission, there is no plan to provide further relief through the Greenhouse Gas Reduction Account. **Note:** Funding electricity support programs through the tax-base rather than the rate base will provide some saving to both Class A and B consumers.

Tenants – Likely to support any future price mitigation measures that directly benefit them; likely to react negatively if no mitigation measures target them.

Northern communities – Likely to support the targeted RRRP delivery relief.

Indigenous communities – First Nation members who live on reserves are likely to support the proposal because of the targeted delivery relief. Other Indigenous communities (i.e., Metis, non-status, First Nations without land bases) are likely to react negatively at being excluded from the delivery charge relief.

eNGOs – Likely to support any targeted conservation efforts, may react negatively towards any price relief that is not directly tied to energy conservation.

LDCs – Have expressed the need for an additional tool to provide assistance to their customers who are having difficulty with their electricity bills.

Delivery:

The initiatives in this proposal would be announced in March 2017, with price mitigation measures beginning to take effect July 1, 2017. The 2017 LTEP will be released to the public in May 2017 and would reinforce/integrate with this proposal.

1. Refinancing Global Adjustment assets in order to defer ratepayer costs / Mechanism to defer GA costs

The ministry will report back to Cabinet and TB/MBC in March 2017 on the recommended implementation approach and mechanism for refinancing Global Adjustment assets in order to defer ratepayer costs and for Class B supports.

This initiative is expected to take three to six months to implement following the introduction of enabling legislation.

2. Enhancing Social and Conservation Programs

RRRP Enhancement

New legislation and regulations would be required to establish this program. OEB estimates that the implementation would take at least six months after finalizing regulations. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.

OESP Enhancements

New OESP program details would require TB/MBC approval.

Changes to legislation/regulation will be required to establish and define the parameters for the proposed changes. The financial flow-through mechanism would likely be modeled after processes used for the OREC (8% rebate).

The proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The OEB and their central service provider will need to work with LDCs, MOF, and the CRA on the proposed changes to this program (delivery mechanism, funding source, application system, eligibility).

New Affordability Fund

This is a new program that would require TB/MBC approval.

ENERGY proposes to work with Hydro One to set up an independent Trust to serve as the Fund Administrator. The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province in consultation with other LDCs and key stakeholders. The Fund Administrator will also be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program would be managed on a consistent basis across the province.

LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.

LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers. Individual LDCs would then be best positioned to identify and target their customers who are most in need.

On-Reserve First Nations Delivery Credit

Legislation and regulations would be required to implement this program. The OEB would need to work with the LDCs to identify the on-reserve consumers. A communications plan could include public release of the OEB report and a commitment to working with the LDCs on implementation details.

The rebate would appear on customer's electricity bills as a reduction in their delivery line.

There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities. A genuinely ameliorative program that targets some people but excludes others is shielded from a section 15 challenge if it serves or advances the ameliorative goal.

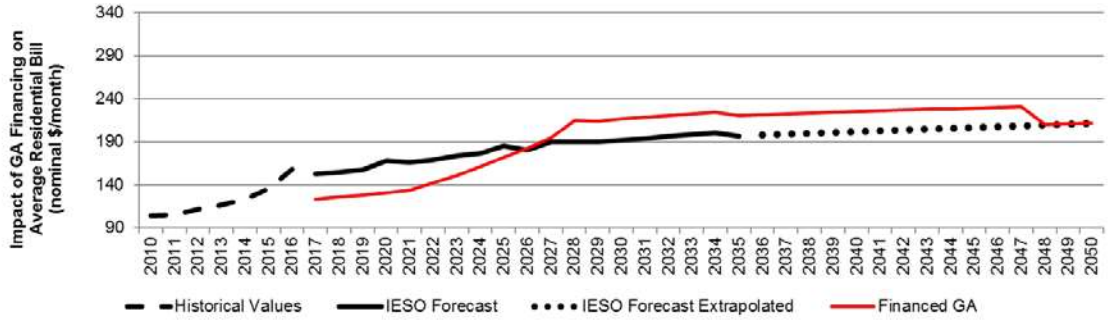
5. Ongoing Efforts to bend the cost curve of electricity

These initiatives could be directed through the Minister's letter, the LTEP Implementation Directive, s. 35 of the Ontario Energy Board Act, 1998, and/or the 2017 Mandate Letter and other agency business planning processes.

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in substantial debt and higher electricity prices in the future. Based on this portion of the proposal, electricity prices would increase to about 10% above the actual cost of electricity over the recovery period (peaking at 13%). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers. Under the proposal, the government would not have the ability to control this portion of electricity rates in the future.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 13% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

The government may be criticized for creating a new debt structure which could be compared to the previous debt retirement charge (DRC). The previous debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

Future repayment cost estimates are based on a static interest rate of 5%, and forecast electricity market conditions and demand levels. Declining demand levels due to conservation, technology adoption, and self-generation would increase the costs borne by remaining customers to decease the debt associated with GA financing. This would increase the risk that the province would have to absorb some of the debt in the future.

Not all generating assets will continue operations at the end of their contract, in that case, future rate payers will be paying the cost for assets that are no longer in use. High capital costs, equipment obsolescence or surplus capacity / low demand conditions mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power in paying down the deferred GA and accumulated interest costs.

Accounting and Provincial Credit Rating and Borrowing

The significant amount of additional provincial borrowing needed to refinance the GA and associated risks and fiscal costs (interest rates, repayment timelines) could put pressure on the Province's credit rating and overall borrowing capacity.

The complexity of the structure and length of deferral (i.e., recovery of debt) increase the overall risk of the proposal and decrease transparency to the public. If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit. However, depending on funding to OPG/ OPG Trust from the Province, an increase in interest on debt and an increase on income from OPG will result.

Rating agencies and investors in the Province's debt may view all of the borrowing (whether by the Province directly or the OPG Trust) as an obligation of the Province. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

To date, the Ontario Auditor General (OAG) opinion on the proposal has not been sought. While the auditors of OPG and IESO are providing their preliminary assessments and the Office of the Provincial Controller Division (OPCD) has been engaged, the OAG has historically raised concern with "rate regulated accounting" and may take this into account when the provincial books are audited (i.e., it may impact whether the OAG qualifies the provincial books).

Based on early assessments, only a maximum of 18% rate relief can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing. All of the deferral is dependent on increased borrowing. The 18% referenced here is the limit based on review of the contracts and a Eurig assessment and also includes the 8% reduction that was already provided.

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle, refinancing the GA to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

However, a proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax. Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

Retired Supreme Court of Canada Judge Ian Binnie has provided further legal analysis of this proposal, stating that the amount that could be financed would need to reflect the true value of the underlying assets being amortized over a longer period of time. Shifting too much of the current GA costs to future generations could jeopardize the nature of this being a regulatory charge.

Fiscal Pressure

This proposal does not align with the 2016 Budget fiscal plan and there are no proposed offsets identified. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure, which may increase in the out years, and could only be removed by a legislative amendment.

The cost projections in this proposal are highly sensitive to interest rates and other assumptions:

- The proposal assumes GA refinancing does not have a fiscal impact because the associated legal authority and accounting treatment requirements are met. If the costs of GA refinancing were accounted for as an expense to the fiscal plan, the fiscal impact would be significant.

- The term and timing of the GA refinancing are highly dependent on the IESO's forecast of GA costs and actual interest rates.

The extent of fiscal pressures is also dependent on other factors (i.e., OAG could qualify Ontario's books or issue an adverse opinion). Due to the complexity and size of the proposal, the government (i.e., OPC) and agencies of the government (OPG and IESO) have various external advisors providing preliminary assessments and recommendations on a model that would support the desired outcome.

There may be some criticism that additional fiscal pressure and risk is being taken to benefit some customers that are not in as much need of rate relief as others (i.e., those that own second homes or cottages).

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG has not been consulted on this proposal and will have opportunities to publicly state her views through the Public Accounts committee in the summer of 2018 and in her pre-election report.

The Financial Accountability Officer (FAO) has not been consulted on this proposal and is expected to have an opinion on how this proposal may impact the state of the province's finances.

Mechanism or Plan for OPG

- Accountability
    - Need to balance independence of the OPG trust with regulatory oversight and the market's need for certainty in recovering the GA financing that it provides.
    - Accountability to the government or the public, amount of government control of the entity, including future rate increases.
- New structure
    - Structure is complex, involving:
        - IESO as originator of the regulated asset and responsible for flow of funds;
        - OEB as regulator of the new mechanism;
        - OPG responsible for financing and managing the mechanism; and
        - The Province providing ongoing equity capital infusions to OPG.
    - Addition of financial agency to current operational obligations of OPG – not the current expertise of OPG. However, OPG has experience managing large financial assets and liabilities through the jointly managed Ontario Nuclear Funds as well as its own pension fund. In addition, could possibly dilute

OPG's focus on current high priority responsibilities (i.e., electricity generation and nuclear refurbishment).

  - This financing structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
  - Connection to BPS compensation framework/lack of national comparator.
  - Unknown transaction, admin, consultant costs.
- Debt
  - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
  - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion.
  - Repayment plan and impact on rate payers highly dependent on interest rates
- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO).

<u>Legal Risk – constitutionality of financing the GA</u>

Former Supreme Court Justice Ian Binnie has provided a legal opinion which concludes that the current proposal is at a moderately high risk of being a tax. The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.

If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).

By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers. In short, the bigger the reduction in charges to current consumers, the greater the constitutional risk.

The risk identified by Mr. Binnie could be eliminated, either up front or retroactively, by the imposition of a valid tax.

<u>Program Design and Implementation</u>

The proposal relies heavily on LDCs as a partner for implementation. Many of these changes will need to take place simultaneously and amongst the 70 LDCs in Ontario there is variety in size, efficiency and ability to implement change.

- Program design will require an evaluation of whether the existing programs are effective and achieving their outcomes (e.g. the OESP has a current uptake of 30% and program changes are proposed in advance of an increased effort to reach 100% uptake, also it is unclear whether the existing HAP program could be expanded – or modified before creating a new LDC Affordability program)
- Implementation of new Affordability Fund - it is expected that Hydro One would be one of the participating LDCs involved in setting up the Trust to administer the Fund. As such, the ministry is working to ensure that funding flows before year-end 2016/17 to the Trust as any monies that are sitting in Hydro One at year-end would be consolidated with the province and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers. Details about the establishment of the Trust are still being determined by the ministry, in consultation with the OPCD and Hydro One.
- The OESP matrix would no longer follow the Low Income Measure (LIM) which would flag inconsistencies between how programs are applied or put pressure other provincial programs to increase funding amounts

Benefits for all Consumer Classes

The proposal includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Alternative Options Considered:

1) Status quo – in the absence of this proposal electricity rates are forecasted to increase by 10% from 2017 to 2020. To date, the province has implemented an 8% rebate on all residential bills, in addition to expanding RRRP and broadening of ICI. Could include additional public communications about existing electricity price mitigation initiatives (e.g., the DRC will be removed from industrial consumers in 2018).
2) Provide up to 25% rate relief across all consumer classes (residential, small business, commercial and industrial funded from the fiscal plan). The projected cost would be $4B/year above the existing cost of the 8% rebate.
3) Provide a total of 20% or 18% rate relief (versus 25%) through a combination of deferral of GA costs, social programs and the existing 8% rebate.
4) Capping the amount an LDC can bill consumers for distribution service at a specific cost, with distribution costs that exceed this cap covered by the support from the fiscal plan. This would have been temporary until the completion of the OEB-mandated move to completely fixed distribution costs (scheduled for 2019, 2020-2022 for Hydro One), or having LDCs take on some of the GA deferral cost with long term repayment terms.
5) Achieving lower GA costs through renegotiating the existing contracts with the power generators.

6) Investing in targeted social programs that could be application based in the short term, providing a more targeted benefit to those in greatest need.
7) Procuring additional hydroelectricity from Quebec, would require upgrades to transmission infrastructure and would be more costly than domestic alternatives.
8) Using IESO and/or creating a new special purpose entity, independent from the Province that would be dedicated to GA refinancing.
9) Capping electricity rates at 1.7% for 3-to-4years and capping the salaries of electricity sector executives.
10) Expanding access to natural gas for home heating by increasing funding to the natural gas expansion program by $100 million. This could also include additional support to address conversion costs (i.e., switching away from electric heating to natural gas).

Linkages:

Long-Term Energy Plan (LTEP) – Ontario is preparing to release a new LTEP in April 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

Electricity Rate Mitigation Initiatives – The Ontario Rebate for Electricity for Electricity Consumers Act, 2016, (ORECA) put in place an 8% rebate for residential, small business customers and farms beginning January 1, 2017.

The Ontario Clean Energy Benefit (OCEB) was a five-year legislated program put in place as a broad-based, transitional measure to a cleaner electricity system. OCEB was also put in place following the implementation of the Harmonised Sales Tax (HST). Unlike the previous provincial Retail Sales Tax (RST), the HST (and GST) included electricity in the taxable base. OCEB expired on December 31, 2015.

Debt Retirement Charge – The government also recently ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, as of January 1, 2016, and put in place the low-income targeted Ontario Electricity Support Program (OESP), effective 2016. For all other consumers the DRC is scheduled to be removed by April 2018.

Ontario's Climate Change Action Plan (CCAP) – The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to $2 per month, on average, to residential consumers. This commitment to residential consumers was met by the January 2017 8% rebate.

The commitment to mitigate the cap and trade impact on electricity costs for commercial and industrial consumers (i.e., Class A and B) has not been addressed. **Note:** Funding electricity

support programs through the tax-base rather than the rate base will provide saving to Class A and B consumers.

The CCAP committed to a new Climate Change agency that would act as one window for the delivery of climate change-related programs (e.g., energy management programs).

The CCAP committed to "consider options for legislation/regulation change that lessen the impact on residential tenants of increased energy costs from cap and trade". As part of the review of the Residential Tenancies Act, the Ministry of Housing is working on a proposal that will address that commitment. The proposal is expected to come to Cabinet in spring 2017.

PROPOSED CABINET MINUTE

Cabinet agreed that:

ENERGY develop electricity rate mitigation actions that, in total, support a 25% electricity bill reduction (including the 8% reduction announced in 2016) in 2017 for a typical household by undertaking the following actions:

1. For consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor, ENERGY:

    A. Subject to completed legal, accounting and financing risk assessments, finance a portion of the Global Adjustment (GA) costs in order to partially defer RPP-eligible ratepayer GA costs by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by about 16% (i.e., $26 per month). Total projected bill increases will be kept in line with Consumer Price Index (CPI) until the end of 2021. From 2022 onwards, bills will increase at a rate that ensures gradual recovery of the accumulated debt and associated financing costs by 2048, with escalation in subsequent years set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill. To this end:

        i. Explore expanding the powers of Ontario Energy Board (OEB), Independent Electricity System Operator (IESO), and Ontario Power Generation (OPG), and using other mechanisms, including the putting in place of appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the deferred GA costs.

2. ENERGY develop and implement, subject to appropriate Treasury Board/Management Board of Cabinet approvals, rate mitigation initiatives targeted at specific populations, including:

    A. Broadening the Rural or Remote Rate Protection (RRRP) program to mitigate distribution charges for customers of Local Distribution Companies (LDC) with some of the highest distribution rates, and moving the program from a ratepayer funded program to a government funded program beginning in 2017, including:

        i. Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout

Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the lowest distribution rate paid by an average consumer in this group by fall 2017.

B. Expanding every benefit level of the Ontario Electricity Support Program by 50%, moving the program from a ratepayer funded program to a government funded program beginning in 2017 and pursuing additional measures to substantially increase take-up;

C. Establishing a new one-time government funded Affordability Fund in 2016/17 to provide relief to electricity customers who do not qualify for existing low income programs and cannot purchase energy efficiency measures without financial assistance;

D. Establishing a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve; and

E. Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500 kW for consumers under North American Industry Classification System (NAICS) codes 31-33 (i.e., manufacturing) to enhance competitiveness for Class B electricity consumers beginning July 2017. Newly eligible consumers would be required to opt-in to the program if they wish to participate.

3. ENERGY report back to TB/MBC, prior to announcement, on:

   A. A feasible mechanism for refinancing the Global Adjustment, per minute 1A, including completed legal, accounting, and financing risk assessments.

   B. If a non-fiscal mechanism cannot be established for refinancing the Global Adjustment, options for achieving a comparable level of electricity rate mitigation in the most cost effective way in order to minimize the impact on the province's fiscal plan.

   C. Additional proposed rate mitigation initiatives targeted at specific populations, per minute 2, including a proposal to move the RRRP and OESP from ratepayer funded programs to government funded programs.

4. ENERGY, through the Long-Term Energy Plan, take steps to further reduce electricity rates across the system by:

   A. Ontario Energy Board (OEB) – Identify opportunities for OEB red-tape reduction and future LDC efficiencies and rates;

B. Directing Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

5. ENERGY to explore additional rate mitigation initiatives targeted at specific populations, including:

   A. Working with the ministries of Economic Development and Growth (MEDG), Finance (MOF), Environment and Climate Change (MOECC), Labor (MOL) and Small Business to identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' and report back to Treasury Board/Management Board of Cabinet and Cabinet in winter 2017.

   B. Working with the Ministry of Housing to explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs and report back to Treasury Board/Management Board of Cabinet and Cabinet in winter 2017.

6. ENERGY seek any further Treasury Board / Management Board of Cabinet approvals of these initiatives prior to implementation.

7. ENERGY report back to Treasury Board / Management Board of Cabinet by 2021 with a review of the Rural or Remote Rate Protection (RRRP) program changes, including the efficiency and effectiveness of the program.

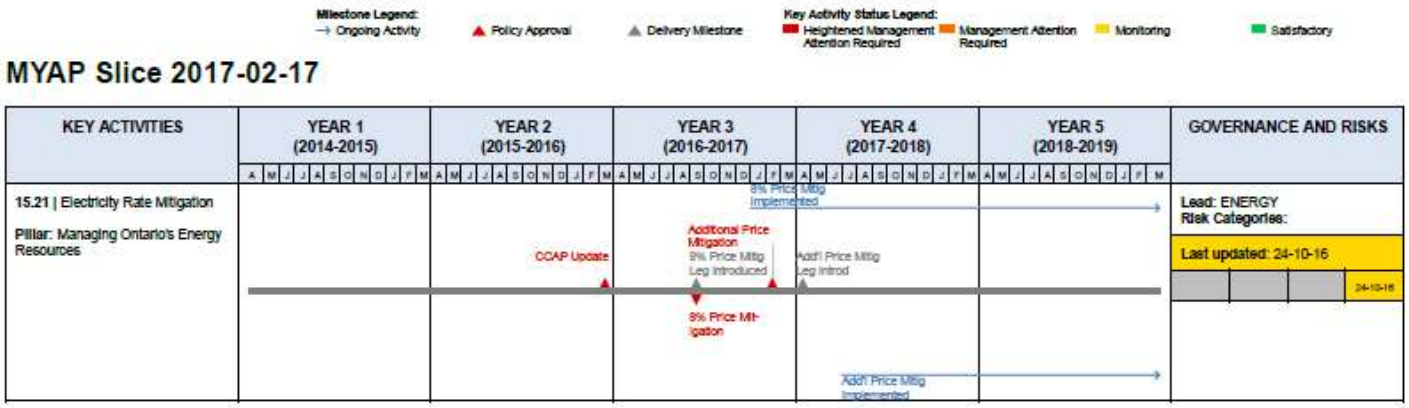
8. ENERGY report to LRC and Cabinet in winter 2017 with legislative amendments to implement the above initiatives, as necessary.

9. ENERGY to report back to LRC and Cabinet for approval of any supporting regulations and complementary regulatory amendments in winter 2017.

10. ENERGY and MOF work with the Premier's Office and the Cabinet Office on the development and implementation of an integrated communications strategy.

APPENDIX A: Multi-Year Action Plan

Below is an extract taken from the MYAP which demonstrates the overall strategic plan for the initiative that this policy submission supports. This excerpt represents the approved plan to date, and may not reflect the specific policy and delivery timelines identified in the Cabinet Minute above.



From:	Shajee Kathirgamanathan
To:	John Kim
Cc:	Bruno Amara
Subject:	RE: Class B
Date:	Tuesday, March 14, 2017 10:12:09 AM

Thanks. Password for the CabSub was SpringBreak17

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Tuesday, March 14, 2017 10:11 AM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Class B

Fyi, I don't have the pw but looks like Emily dealt with it.

From: Emily Kerr
Sent: Tuesday, March 14, 2017 10:10 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Class B

Pages 3 and 4 of the pink note from the March 1 Cabinet submission (attached) have the following definitions. (I added material in bold for the class A definition to note the proposed lowering of the threshold to 500 kW.)

Regulated Price Plan (RPP) – Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.

Class A Consumer – Large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year. On January 1, 2017 the threshold for Class A was lowered to 1MW for all consumer types. **[The March 1, 2017, Cabinet submission from Energy proposed to expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts. The expansion would be targeted to manufacturers.]**

Non-RPP Class B Consumer – Commercial, institutional and small industrial consumers, typically with load size under 3 MW. Class B consumers pay GA as a volumetric rate

applied to all electricity consumption. Class B consumers include those that choose not to become Class A.

From: Ronald Kwan
Sent: Tuesday, March 14, 2017 10:01 AM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Class B

Hi,

Looping in Emily, in case SPFB has something handy.

Ron

From: Gavin He
Sent: March-14-17 09:59
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: Class B

Hi John,

Our MO is wondering if we have a chart or short bullets that define RPP, Class A, and Class B consumers. Do we have one handy?

Thanks,
Gavin He

From: Nguyen, Marianne (MOF) [mailto:Marianne.Nguyen@ontario.ca]
Sent: Tuesday, March 14, 2017 9:56 AM
To: Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Class B

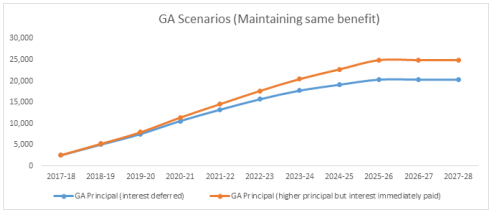
Hi Chris – Do you have a handy chart or short bullets that define RPP vs Class A vs Class B consumers?

From: Bruno Amara
To: Adam Prokop
Cc: John Kim; Salman Qadir
Subject: RE: EXTERNAL - Interest Recovery
Date: Monday, March 20, 2017 3:45:03 PM
Attachments: image001.png

Thanks Adam

From: Adam Prokop
Sent: Monday, March 20, 2017 3:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Here is a more exact calculation:



	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
GA (interest deferred)	2,501	5,009	7,509	10,584	13,244	15,698	17,736	19,121	20,332	20,332	20,332
GA (higher principal but interest immediately paid)	2,540	5,178	7,924	11,384	14,554	17,654	20,464	22,734	24,924	24,924	24,924

Essentially, there will be more principal at the beginning but less interest costs over time (and faster payment of principal) in the current method proposed by OPG; if interest costs are deferred, the principal is lower but there are higher interest costs. The higher principal amount is ~ $5B before repayments start to be made. The long-term costs are very similar, but OPG's method allows the Trust to collect cash and recognize income immediately.

Kind regards,

Adam Prokop

From: Adam Prokop
Sent: Monday, March 20, 2017 2:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

I did this a while ago but the caveat is that the 25% savings is really only for the first year. So Energy can play around with the model and lower the overall costs substantially by collecting interest right away rather than if there was a compounding effect. The attached model assumes 25% across many years which is just to illustrate that both methods get the same amount of borrowing if the savings rate is held consistent.

Kind regards,

Adam Prokop

From: Adam Prokop
Sent: Monday, March 20, 2017 2:40 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

See attached.

From: Bruno Amara
Sent: Monday, March 20, 2017 1:49 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

See Ron's question. Is there a short answer to this using our model. I think it's the point we were discussing. Interest rate costs are recovered on an ongoing basis, but then 25% is not met so how much more deferral?

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Just as we expected, all interest and fees will be recovered every year immediately.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
I've confirmed that 100% of the interest and fees would be recovered through the process immediately.
Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Monday, March 20, 2017 11:06 AM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL – Interest Recovery

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

You can reach me from here if I'm not in my office.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

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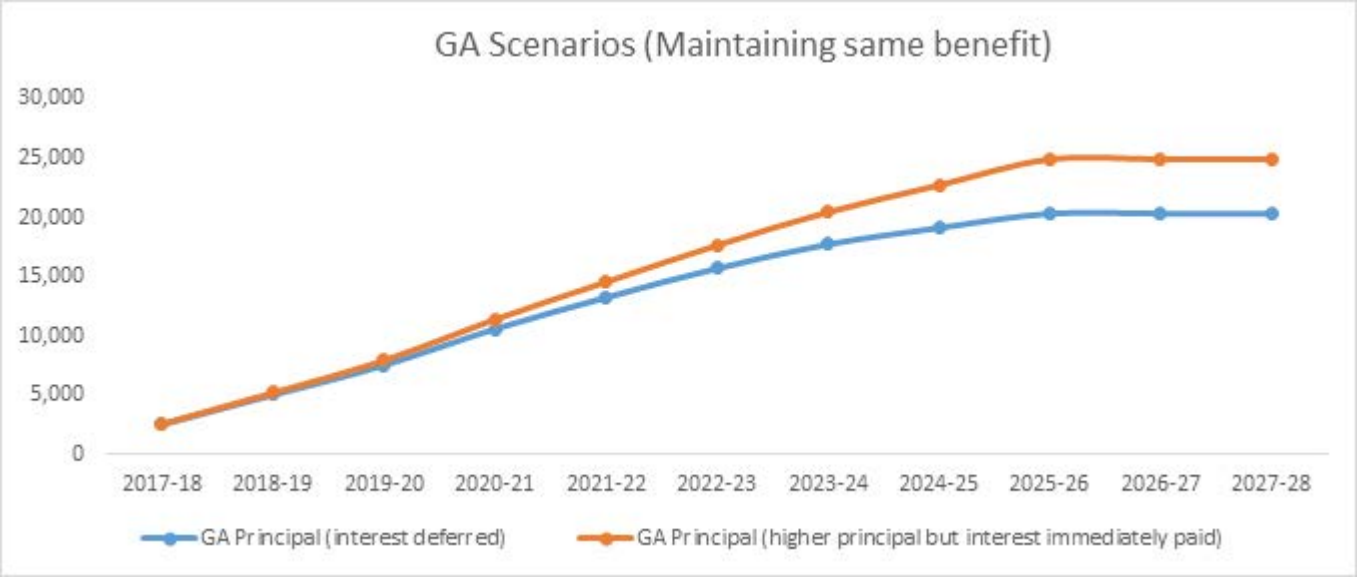
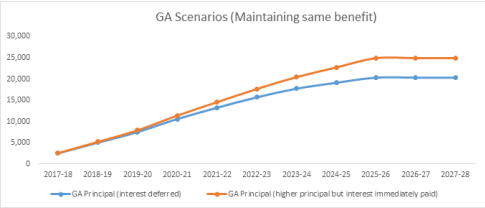

GA Scenarios (Maintaining same benefit)
30,000
25,000
20,000
15,000
10,000
5,000
0
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28
GA Principal (interest deferred)
GA Principal (higher principal but interest immediately paid)

From: Adam Prokop
To: Bruno Amara; Salman Qadir
Cc: John Kim
Subject: RE: EXTERNAL - Interest Recovery
Date: Monday, March 20, 2017 3:43:34 PM
Attachments: image001.png

Here is a more exact calculation:



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Subject: RE: EXTERNAL - Interest Recovery

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From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

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From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

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Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
I've confirmed that 100% of the interest and fees would be recovered through the process immediately.
Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

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Subject: EXTERNAL – Interest Recovery

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Hello Clara,

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Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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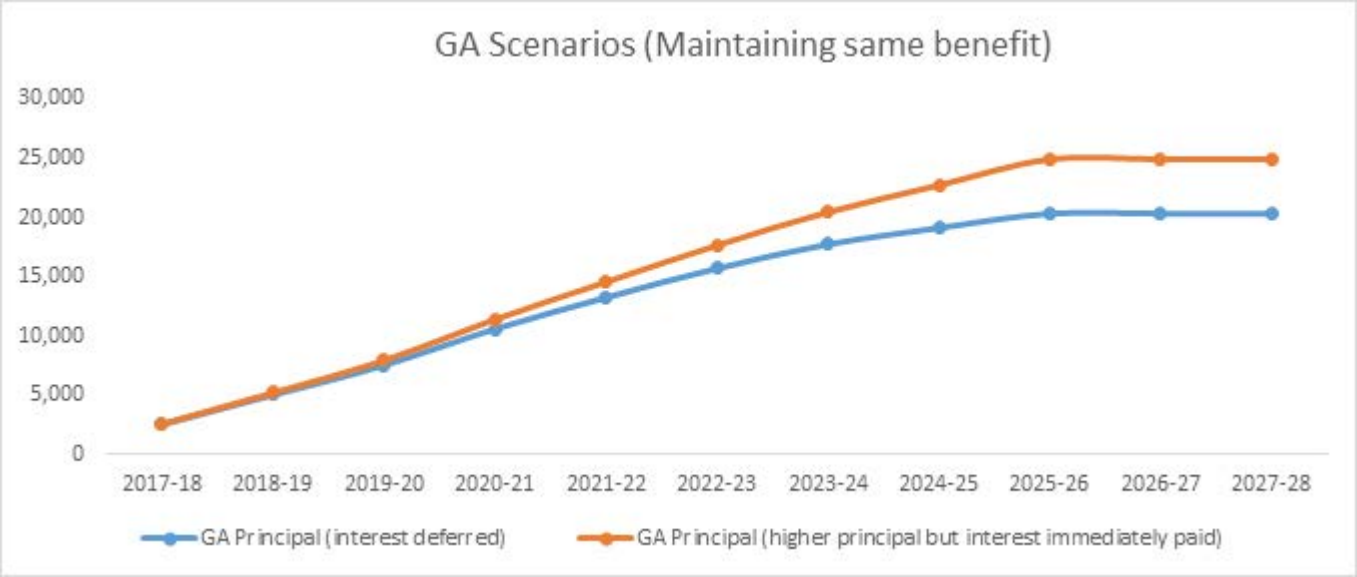
GA Scenarios (Maintaining same benefit)
30,000
25,000
20,000
15,000
10,000
5,000
0
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28
GA Principal (interest deferred)
GA Principal (higher principal but interest immediately paid)

From:	Adam Prokop
To:	Bruno Amara; Salman Qadir
Cc:	John Kim
Subject:	RE: EXTERNAL - Interest Recovery
Date:	Monday, March 20, 2017 2:42:02 PM

I did this a while ago but the caveat is that the 25% savings is really only for the first year. So Energy can play around with the model and lower the overall costs substantially by collecting interest right away rather than if there was a compounding effect. The attached model assumes 25% across many years which is just to illustrate that both methods get the same amount of borrowing if the savings rate is held consistent.

Kind regards,

Adam Prokop

From: Adam Prokop
Sent: Monday, March 20, 2017 2:40 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

See attached.

From: Bruno Amara
Sent: Monday, March 20, 2017 1:49 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

See Ron's question. Is there a short answer to this using our model. I think it's the point we were discussing. Interest rate costs are recovered on an ongoing basis, but then 25% is not met so how much more deferral?

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Just as we expected, all interest and fees will be recovered every year immediately.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
I've confirmed that 100% of the interest and fees would be recovered through the process immediately.
Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Monday, March 20, 2017 11:06 AM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL – Interest Recovery

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

You can reach me from here if I'm not in my office.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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From:	Adam Prokop
To:	Bruno Amara; Salman Qadir
Cc:	John Kim
Subject:	RE: EXTERNAL - Interest Recovery
Date:	Monday, March 20, 2017 2:39:47 PM
Attachments:	GA interest vs no deferral.xlsx

See attached.

From: Bruno Amara
Sent: Monday, March 20, 2017 1:49 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
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clara.greco@opg.com

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Deferring Interest Collection from Ratepayers

	1	2	3
Annual GA	$ 10,000	$ 10,000	$ 10,000
Starting Debt	$ -	$ 2,563	$ 5,189
Deferral for the year	$ 2,500.00	$ 2,500.00	$ 2,500.00
Interest Cost (5%)	$ 62.50	$ 126.56	$ 192.23
Accumulated Debt	$ 2,562.50	$ 5,189.06	$ 7,881.29
Accumulated Interest			
Total borrowing			
Amount of savings	25%	25%	25%

Not Deferring Interest collection from ratepayers

	1	2	3
Annual GA	$ 10,000	$ 10,000	$ 10,000
Starting Debt	$ -	$ 2,564	$ 5,194
Deferral for the year	$ 2,564.11	$ 2,629.85	$ 2,697.28
Interest Cost (5%)	$ 64.10	$ 129.85	$ 197.28
Accumulated Debt	$ 2,564.11	$ 5,193.95	$ 7,891.23
Annual savings	25.00002%	25.00000%	25.00000%

4	5	6	7	8	9	10	Total
$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	
$ 7,881	$ 10,641	$ 13,469	$ 16,369	$ 19,340	$ 22,386	$ 25,508	
$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	
$ 259.53	$ 328.52	$ 399.23	$ 471.71	$ 546.01	$ 622.16	$ 700.21	
$ 10,640.82	$ 13,469.34	$ 16,368.58	$ 19,340.29	$ 22,386.30	$ 25,508.45	$ 28,708.67	
25%	25%	25%	25%	25%	25%	25%	

4	5	6	7	8	9	10
$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
$ 7,891	$ 10,658	$ 13,495	$ 16,405	$ 19,390	$ 22,451	$ 25,591
$ 2,766.44	$ 2,837.38	$ 2,910.13	$ 2,984.75	$ 3,061.28	$ 3,139.77	$ 3,220.28
$ 266.44	$ 337.38	$ 410.13	$ 484.75	$ 561.28	$ 639.77	$ 720.28
$ 10,657.68	$ 13,495.05	$ 16,405.18	$ 19,389.93	$ 22,451.21	$ 25,590.99	$ 28,811.27
25.00000%	25.00000%	25.00000%	25.00000%	25.00000%	25.00000%	25.00000%

From:	Bruno Amara
To:	Adam Prokop; Salman Qadir
Cc:	John Kim
Subject:	RE: EXTERNAL - Interest Recovery
Date:	Monday, March 20, 2017 1:49:07 PM

See Ron's question. Is there a short answer to this using our model. I think it's the point we were discussing. Interest rate costs are recovered on an ongoing basis, but then 25% is not met so how much more deferral?

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Just as we expected, all interest and fees will be recovered every year immediately.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
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Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

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Sent: Monday, March 20, 2017 11:06 AM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL – Interest Recovery

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Office: 416-315-6462
adam.prokop@ofina.on.ca

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From:	Ronald Kwan
To:	John Kim
Cc:	Bruno Amara; Adam Prokop
Subject:	RE: EXTERNAL - Interest Recovery
Date:	Monday, March 20, 2017 1:45:23 PM

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
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Sent: Monday, March 20, 2017 12:51 PM
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Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
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Thanks

Clara

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From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
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To: GRECO Clara -LAWDIV
Subject: EXTERNAL – Interest Recovery

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From: Adam Prokop
To: Ronald Kwan; Bruno Amara
Cc: John Kim
Subject: RE: EXTERNAL - Interest Recovery
Date: Monday, March 20, 2017 4:55:04 PM
Attachments: image001.png

Hello Ron,

The cumulative interest will be less by a similar amount over the period. The principal can be paid off faster, thus lowering the interest costs. In the end, the total borrowing across the 30-year period is quite similar in both scenarios if assuming the % of GA reduction or principal repayments are the same.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Ronald Kwan
Sent: Monday, March 20, 2017 4:25 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: Re: EXTERNAL - Interest Recovery

Thanks. And the cumulative interest would be down by a similar amount over that period? How about over the full 30 year period?

Ron

From: Bruno Amara
Sent: March 20, 2017 4:18 PM
To: Ronald Kwan
Cc: John Kim; Adam Prokop
Subject: FW: EXTERNAL - Interest Recovery

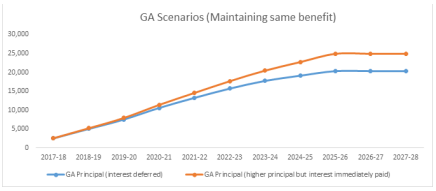
Hi Ron

See Adam's response below to your question. If interest is recovered from ratepayers then GA deferral will be need to be higher to provide same 25% benefit.

Bruno

From: Adam Prokop
Sent: Monday, March 20, 2017 3:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Here is a more exact calculation:



$ Millions

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
GA (interest deferred)	2,501	5,009	7,509	10,584	13,244	15,698	17,736	19,121	20,332	20,332	20,332
GA (higher principal but interest immediately paid)	2,540	5,178	7,924	11,384	14,554	17,654	20,464	22,734	24,924	24,924	24,924
Difference	39	169	415	800	1,310	1,956	2,728	3,613	4,592	4,592	4,592

Essentially, there will be more principal at the beginning but less interest costs over time (and faster payment of principal) under the method proposed by OPG. The higher principal amount is ~ $5B before repayments start to be made. If interest costs are deferred, the principal is lower but there are higher interest costs. The long-term costs are very similar, but OPG's method allows the Trust to collect cash and recognize income immediately.

Kind regards,

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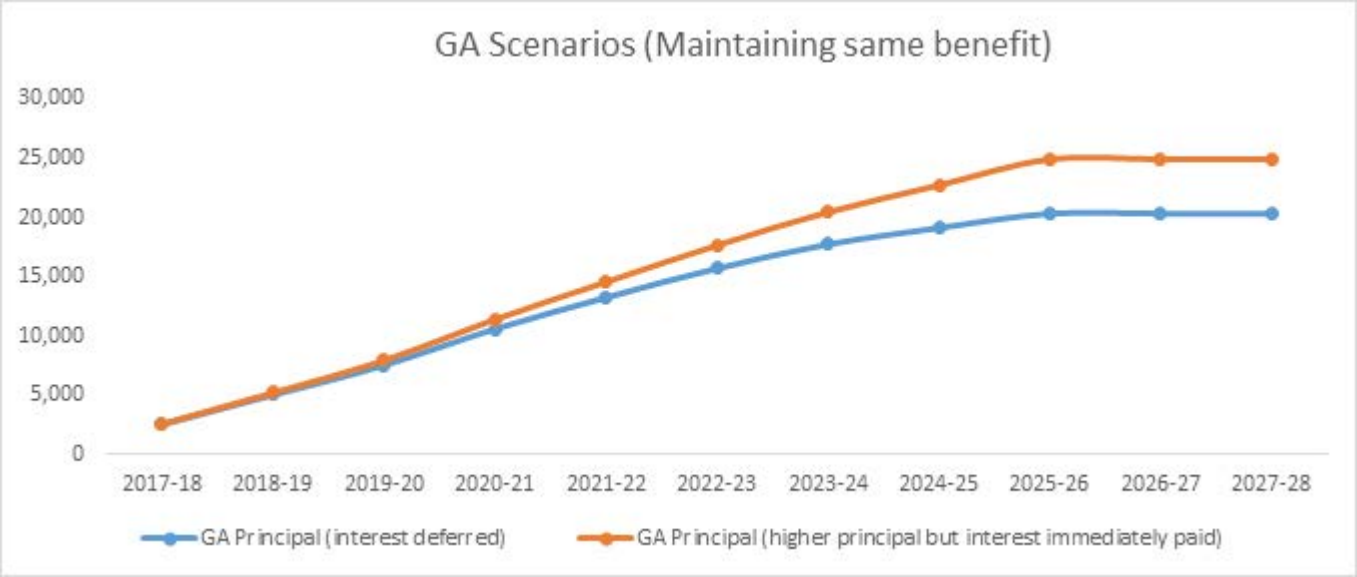
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30,000
25,000
20,000
15,000
10,000
5,000
0
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28
GA Principal (interest deferred)
GA Principal (higher principal but interest immediately paid)

From: Bruno Amara
To: John Kim
Subject: RE: EXTERNAL - OPG - 44% of GA Deferral from the Province.
Date: Monday, April 03, 2017 9:21:02 AM

Hi John:

Whoops. I'm getting to these emails late. But, Adam did mention to me. I had asked about the note and desire to get a draft done. Adam did mention that he had a follow-up question with OPG. I said OK. But happy to discuss how we should be approaching OPG.

Bruno

From: John Kim
Sent: Saturday, April 01, 2017 8:01 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Fwd: EXTERNAL - OPG - 44% of GA Deferral from the Province.

Hi Bruno,

Did Adam ask you about this before hand or was this with no guidance?

John

Begin forwarded message:

> **From:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Date:** March 31, 2017 at 2:59:10 PM EDT
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>, John Kim <John.Kim@ofina.on.ca>
> **Cc:** Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>, Salman Qadir <Salman.Qadir@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
> **Subject: FW: EXTERNAL - OPG - 44% of GA Deferral from the Province.**
>
> FYI.
>
> Will have more on Monday.
>
> Kind regards,
>
> Adam Prokop
>
> ---
>
> **From:** GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
> **Sent:** Friday, March 31, 2017 2:51 PM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>

Subject: RE: EXTERNAL - OPG - 44% of GA Deferral from the Province.

Hi Adam
After a very brief discussion with our Treasury folks it looks like they are thinking about a premium for the redemption right, and the initial thinking is that we would use 10%, ie $22. But I will confirm this Monday, as well as give you some feedback on the interest issue.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Friday, March 31, 2017 2:08 PM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL - OPG - 44% of GA Deferral from the Province.

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

It is Adam again. Wanted to know of you were free to discuss the equity injection from the Province from the perspective of OPG? Especially on the treatment of the equity (preferred vs common).

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Tuesday, April 25, 2017 5:29:04 PM

Hey john - nothing written from TPD just a conversation I'm told.

Keep ya posted if we get something though

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 25, 2017 4:49 PM
To: Montgomery, Kaitlin (MOF)
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Kaitlin,

Question.....was there a written material TPD provide? If any, could you share?

Thanks,

John

-----Original Message-----
From: Lewis, Robin (MOF) [mailto:Robin.Lewis@ontario.ca]
Sent: Friday, April 21, 2017 11:14 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

John,

We do not have a draft as yet.

I understand that not all of the design features of the asset have been finalized.

Our considerations will be limited to those concerning a PII exemption for the income from the SPV.

Regards,

Rob

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 21, 2017 11:08 AM
To: Montgomery, Kaitlin (MOF); Lewis, Robin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)

Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)

Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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_____

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From: John Kim
To: Scott Nelms (ENERGY); Ronald Kwan; Robin Lewis (MOF)
Cc: Bruno Amara; Sriram Subrahmanyan (MOF); Ann Langleben (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 11:38:33 AM

Hi Rob,

I will give you a call this afternoon.

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Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

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Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:

> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
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> Rob Lewis
>
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>
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> **Sent:** April 19, 2017 5:48 PM
> **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Hi Rob, John Bruno,
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>
> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Please loop in John and Bruno too.
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> Thanks,
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> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
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> **To:** Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)

Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Would Ann and Rob be the right people to loop in on this?

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> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
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> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
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From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>

Date: Thursday, Apr 13, 2017, 6:50 PM

To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>

Subject: Fair Hydro Plan - question on taxation

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Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

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From: Nelms, Scott (MOF)
To: Ronald Kwan; Robin Lewis (MOF)
Cc: John Kim; Bruno Amara; Sriram Subrahmanyan (MOF); Ann Langleben (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 11:26:11 AM

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:

> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
>
> The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>
> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>
> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>
> This matter ought to be the subject of a ruling request.
>
> Regards,
>
> Rob Lewis
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 19, 2017 5:48 PM
> **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice,
> Scott
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> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
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From: John Kim
To: Salman Qadir
Cc: Bruno Amara; Adam Prokop
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 10:22:52 AM

Ok, tomorrow is fine. Could you drop by for a quick sec?

From: Salman Qadir
Sent: Thursday, April 20, 2017 10:21 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi John,

Toby is not in the office – I can check with him tomorrow if need be. Not sure if you want me to check with Malle as I assume if Toby is the counsel on this, someone will loop him in.

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From: John Kim
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Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Sent from my iPhone

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> Hi Adam,
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> Can you take a look?
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> Thanks,
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> John
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>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Wednesday, April 19, 2017 5:48 PM
> **To:** Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>

Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
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Could you include Rob in your discussions, so we know exactly what they're proposing?

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To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

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Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

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Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
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> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Hi Gadi, Scott,
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> > > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> > >
> > > Hi Ron, Gadi,
> > >
> > > I hope you are enjoying the long weekend.
> > >
> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> > >
> > > Thanks,
> > > Scott
> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Scott,
> > > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > > Thanks,
> > > Ken
> > >
> > > -----Original Message-----
> > > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY

Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV

Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>

Date: Thursday, Apr 13, 2017, 6:50 PM

To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>

Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

_____

_____

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<23344385_4.docx>

<Blackline_23344385v1 - 23344385_4.pdf>

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To: John Kim
Cc: Bruno Amara; Adam Prokop
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 10:21:19 AM

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> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> > >
> > > Thanks,
> > > Scott
> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Scott,
> > > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > > Thanks,
> > > Ken
> > >
> > > -----Original Message-----
> > > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> > >
> > > Hi Ryan,
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> > > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust

(interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

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I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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<23344385_4.docx>
<Blackline_23344385v1 - 23344385_4.pdf>

From: John Kim
To: Ronald Kwan
Cc: Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 9:30:51 AM

Thanks, we want to weigh in on this, if possible, and given that Rob L. essentially having requested more info buys us time.

From: Ronald Kwan
Sent: Thursday, April 20, 2017 9:30 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi John,

Understood.

Ron

From: John Kim
Sent: April-20-17 09:22
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Ron,

Fyi, we are a bit jammed too…..later this afternoon would potentially work.

Thanks,

John

From: Ronald Kwan
Sent: Thursday, April 20, 2017 9:21 AM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:

> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
>
> The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
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> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
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> This matter ought to be the subject of a ruling request.
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> Regards,
>
> Rob Lewis
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 19, 2017 5:48 PM
> **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> Please loop in John and Bruno too.
>
> Thanks,
> Ron
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>

Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
>
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:
>
> > Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
> >
> > > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> > >
> > > Hi Ron, Gadi,
> > >
> > > I hope you are enjoying the long weekend.
> > >
> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
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> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY

Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

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Scott

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Subject: Fair Hydro Plan - question on taxation

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From: Ronald Kwan
To: John Kim
Cc: Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 9:29:31 AM

Hi John,

Understood.

Ron

From: John Kim
Sent: April-20-17 09:22
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
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> w: (416) 212-6469 | c: (647) 330-2681
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> Ron
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> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Certainly. Will do.
>
> ---
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> **From:** Subrahmanyan, Sriram (MOF)
> **Sent:** April-17-17 12:52 PM
> **To:** Nelms, Scott (MOF); Kwan, Ronald (OFA)
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Could you include Rob in your discussions, so we know exactly what they're proposing?

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Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> > > I hope you are enjoying the long weekend.
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> > >
> > > Thanks,
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> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> > > Ken
> > >
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> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> > >
> > > Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.comlblackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPIZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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From: John Kim
To: Ronald Kwan
Cc: Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 9:22:10 AM

Hi Ron,

Fyi, we are a bit jammed too…..later this afternoon would potentially work.

Thanks,

John

From: Ronald Kwan
Sent: Thursday, April 20, 2017 9:21 AM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:

> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
>
> The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>
> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>
> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>
> This matter ought to be the subject of a ruling request.
>
> Regards,
>
> Rob Lewis
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 19, 2017 5:49 PM
> **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> Please loop in John and Bruno too.
>
> Thanks,
> Ron
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Certainly. Will do.
>
> ---
>
> **From:** Subrahmanyan, Sriram (MOF)
> **Sent:** April-17-17 12:52 PM
> **To:** Nelms, Scott (MOF); Kwan, Ronald (OFA)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Could you include Rob in your discussions, so we know exactly what they're proposing?
>
> ---
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> **From:** Nelms, Scott (MOF)
> **Sent:** April 17, 2017 12:50 PM
> **To:** Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>

Date: Thursday, Apr 13, 2017, 6:50 PM

To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>

Subject: Fair Hydro Plan - question on taxation

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Hope this helps.

Thanks,

Ken

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From: John Kim
To: Salman Qadir; Adam Prokop
Cc: Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 9:10:06 AM

I'd like three things to know about this request from OPG and three potential questions to raise.

From: John Kim
Sent: Thursday, April 20, 2017 8:28 AM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

No reason.....am assuming TPD has done that already but can you check with Toby?

While Bruno and I, along with Shajee, try to finalize the Doc materials this morning, could you get a handle on the request?

From: Salman Qadir
Sent: Thursday, April 20, 2017 8:26 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Will do.

Just a question, is there a particular reason we are not engaging MOF legal on this? Its draft legislation and we want to make sure we interpret the changes accurately.

Salman

Sent from my iPhone

On Apr 20, 2017, at 8:12 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Salman,
>
> If you could back up Adam on this.....
>
> John
>
> ---
>
> **From:** John Kim
> **Sent:** Thursday, April 20, 2017 8:12 AM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Subject:** FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Adam,
>
> Can you take a look?
>
> Thanks,
>
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> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Wednesday, April 19, 2017 5:48 PM
> **To:** Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
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> Thanks very much and apologies for the short notice,
> Scott
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> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
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> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> **Sent:** April 17, 2017 12:50 PM

To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

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Sent: April-17-17 12:11 PM
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Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

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> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
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> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
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> > > Sent: Thursday, April 13, 2017 8:19 PM
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> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
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Date: Thursday, Apr 13, 2017, 6:50 PM

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Subject: Fair Hydro Plan - question on taxation

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Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

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<23344385_4.docx>

<Blackline_23344385v1 - 23344385_4.pdf>

From: Lewis, Robin (MOF)
To: Scott Nelms (ENERGY); John Kim; Bruno Amara
Cc: Ronald Kwan; Sriram Subrahmanyan (MOF); Ann Langleben (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:46:48 AM

Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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From: John Kim
To: Salman Qadir
Cc: Bruno Amara; Adam Prokop
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:27:40 AM

No reason.....am assuming TPD has done that already but can you check with Toby?

While Bruno and I, along with Shajee, try to finalize the Doc materials this morning, could you get a handle on the request?

From: Salman Qadir
Sent: Thursday, April 20, 2017 8:26 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Will do.

Just a question, is there a particular reason we are not engaging MOF legal on this? Its draft legislation and we want to make sure we interpret the changes accurately.

Salman

Sent from my iPhone

On Apr 20, 2017, at 8:12 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Salman,
>
> If you could back up Adam on this.....
>
> John
>
> ---
>
> **From:** John Kim
> **Sent:** Thursday, April 20, 2017 8:12 AM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Subject:** FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Adam,
>
> Can you take a look?
>
> Thanks,
>
> John
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Wednesday, April 19, 2017 5:48 PM
> **To:** Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> Please loop in John and Bruno too.
>
> Thanks,
> Ron
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Certainly. Will do.
>
> ---
>
> **From:** Subrahmanyan, Sriram (MOF)
> **Sent:** April-17-17 12:52 PM
> **To:** Nelms, Scott (MOF); Kwan, Ronald (OFA)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Could you include Rob in your discussions, so we know exactly what they're proposing?
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 17, 2017 12:50 PM
> **To:** Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>
> ---
>
> **From:** Subrahmanyan, Sriram (MOF)
> **Sent:** April-17-17 12:11 PM
> **To:** Kwan, Ronald (OFA)

Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
>
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:
>
> > Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
> >
> > > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> > >
> > > Hi Ron, Gadi,
> > >
> > > I hope you are enjoying the long weekend.
> > >
> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> > >
> > > Thanks,
> > > Scott
> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Scott,
> > > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > > Thanks,
> > > Ken
> > >
> > > -----Original Message-----
> > > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> > >
> > > Hi Ryan,
> > >
> > > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
> > >
> > > Thanks,
> > > Scott
> > >
> > > Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
> > >
> > > From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
> > > Date: Thursday, Apr 13, 2017, 6:50 PM

To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>

Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

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<23344385_4.docx>

<Blackline_23344385v1 - 23344385_4.pdf>

From: Lewis, Robin (MOF)
To: John Kim; Montgomery, Kaitlin (MOF)
Cc: Bruno Amara; Ann Langleben (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 11:14:16 AM

John,

We do not have a draft as yet.

I understand that not all of the design features of the asset have been finalized.

Our considerations will be limited to those concerning a PIl exemption for the income from the SPV.

Regards,

Rob

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 21, 2017 11:08 AM
To: Montgomery, Kaitlin (MOF); Lewis, Robin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
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To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

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On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

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Thanks,
Scott

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From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

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Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
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consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
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From: John Kim
To: Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:14:09 AM

Could we chat about this in the afternoon?

I'm hoping Salman would do the IESO-related part and Adam to focus on the legislative issues.....but wanted to get the review started while we wrestle with the BNs and Qs and As this morning.

From: John Kim
Sent: Thursday, April 20, 2017 8:12 AM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Salman,

If you could back up Adam on this.....

John

From: John Kim
Sent: Thursday, April 20, 2017 8:12 AM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Adam,

Can you take a look?

Thanks,

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Wednesday, April 19, 2017 5:48 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

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To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
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> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
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> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
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To: Robin Lewis (MOF); John Kim; Bruno Amara
Cc: Ronald Kwan; Sriram Subrahmanyan (MOF); Ann Langleben (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Wednesday, April 19, 2017 5:47:48 PM
Attachments: 23344385_4.docx
Blackline_23344385v1 - 23344385_4.pdf

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Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

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To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron

On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:

> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>
> > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> >
> > Hi Ron, Gadi,
> >
> > I hope you are enjoying the long weekend.
> >
> > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> >
> > Thanks,
> > Scott
> >
> > -----Original Message-----
> > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > Sent: April-15-17 1:16 PM
> > To: Nelms, Scott (MOF)
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Scott,
> > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > Thanks,
> > Ken
> >
> > -----Original Message-----
> > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > Sent: Thursday, April 13, 2017 8:19 PM
> > To: RYFA Ken -TREASURY
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> >
> > Hi Ryan,
> >
> > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
> >
> > Thanks,
> > Scott
> >
> > Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znl7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
> >
> > From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
> > Date: Thursday, Apr 13, 2017, 6:50 PM
> > To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> > Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
> > Subject: Fair Hydro Plan - question on taxation
> >
> > Scott,
> >
> > I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
> >
> > 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
> >
> > Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
> >
> > Hope this helps.
> > Thanks,
> > Ken
> >
> > _____
> >
> > _____
> >
> > THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.

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This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, Ontario Power Generation Inc., the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. Providing services on behalf of a [**Financing Entity**][2], subject to the right to be paid by the Financing Entity for services, including the following services **[NTD: see further changes to OEB Act below regarding review of OPG costs]**:

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   (vi) administering the activities of a Financing Entity and preparing reports on behalf of a Financing Entity;

   (vii) enforcing the rights of a Financing Entity;

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

(vii) performing any activities incidental to the foregoing.

3. Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts, partnerships or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply:

1. In respect of any income, gain or profit of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of or by virtue of:

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

Subsection 78.1(4) of the *Ontario Energy Board Act, 1998* would be amended as follows:

Board orders

(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.

Version 2

Section 12(3) of the Version 2 Draft Legislation needs to be amended as follows:

Prohibition

(3) The Financial Services Manager shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, **Ontario Power Generation Inc.,** the Ontario Energy Board, the Province or the Lieutenant Governor in Council, except to the extent that any of these persons or entities may be liable to perform obligations or duties arising under this Act or under the express terms of a funding obligation.

Part VII[1]
amendments to other Acts

ELECTRICITY ACT, 1998

200x. (1) Subsection 6 (1) of the *Electricity Act, 1998* would be amended by adding the following clauses:

(q.0.1) to exercise the powers and rights and to perform the duties and obligations assigned to it under the [Fair Hydro Act];

(q.1) to enter into agreements or arrangements with for the purposes of the FHA;

(q.2) to engage in activities related to making payments to and receiving payments as contemplated under the FHA and to engage in related settlement activities;

(q.3) to engage in activities related to the creation, transfer and administration of the regulatory asset created under the FHA, which activities may include,

(i) incurring liabilities in relation to the regulatory asset

(ii) transferring the regulatory asset for consideration;

(q.4) acting as a recovery agent under the FHA;

201x. Section 53.1 of the Act would be amended by adding the following subsections:

[1] FLS: These amendments are drawn from previous drafting contained in gov2016.146.e05 (which was drafted as amendments to the EA, 1998).

Same, [FHA]

53.1 (1.1) In addition to the objects mentioned in subsection (1), the objects of Ontario Power Generation Inc. include the following, in addition to any other objects, relating to the FHA:

1. Exercising the powers and rights and performing the duties and obligations assigned to it under that Act.

2. ~~Entering into contracts and undertakings on behalf of special purpose financing entities, including pre-formation contracts and undertakings and as principal in relation to matters permitted by that Act subject to the right of reimbursement from amounts available to the financing entity.~~**Providing services on behalf of a [Financing Entity][2], subject to the right to be paid by the Financing Entity for services, including the following services [NTD: see further changes to OEB Act below regarding review of OPG costs]:**

   (i) the purchase and administration of investment assets on behalf of a Financing Entity and the negotiation, execution and delivery of any related agreements;

   (ii) the negotiation, execution and delivery on behalf of a Financing Entity of constating documents, financial services agreements, administrative services agreements, purchase and sale agreements, trust indentures, hedging agreements, credit enhancement agreements, servicing agreements, loan agreements, subordinated loan agreements, security agreements, underwriting agreements, agency agreements and any similar agreements;

   (iii) the negotiation, execution and delivery of any documents relating to a sale or offering of securities by a Financing Entity;

   (iv) the implementation and administration of any agreements to which a Financing Entity is a party;

   (v) the acquisition, administration and sale of any other investments that may from time to time be made by a Financing Entity;

   (vi) the borrowing of money by a Financing Entity;

   ~~3.~~ ~~Preparing~~**(vi) administering the activities of a Financing Entity and preparing** reports on behalf of ~~the financing entity.~~**a Financing Entity;**

[2] Note – we have used the term "Financing Entity" throughout. The final term chosen for the legislation will need to be used throughout.

(vii) enforcing the rights of a Financing Entity;

~~4. Enforcing the rights of the financing entity.~~

(vii) engaging or employing any persons to assist it in providing services to a Financing Entity and delegating its powers and duties to such persons; and

~~5. Signing offering documents as sponsor or otherwise on behalf of the financing entity~~

(vii) performing any activities incidental to the foregoing.

~~6.~~ **3.** Exercising the powers and performing the duties of the Financial Services Manager under that Act.

4. Providing equity contributions and loans to a Financing Entity.

[NTD: Given the detailed list of objects in Section 53.1(1.1), OPG is considering whether the objects listed in Section 53.1(1) need to be similarly expanded.]

Subsidiaries, etc.

(1.2) Ontario Power Generation Inc. may create one or more subsidiaries, trusts**,** **partnerships** or special purpose entities in order to more efficiently conduct its activities or achieve its objects.

Deemed assets, entity

(1.3) Despite any other provision of this Act or the *Business Corporations Act* or any other laws, the assets and liabilities of a Financing Entity shall not form part of the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, the Financing Entity) in any proceeding and the assets and liabilities of Ontario Power Generation Inc. or any of its subsidiaries (other than, if applicable, a Financing Entity) shall not form part of the assets and liabilities of a Financing Entity in any proceeding.

202x. Section 89 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under [new Act].~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

203x. Section 90 of the Act would be amended by adding the following subsection:

Exception

(4) The requirement in subsection (1) to pay an amount to the Financial Corporation does not apply ~~in~~**:**

1. In respect of ~~amounts payable to~~**any income, gain or profit of** Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a result of ~~its functions as the Financial Services Manager under the FHA.~~**or by virtue of:**

(A) where a Financing Entity established is a corporation, acquiring, holding or disposing of any equity interest in the Financing Entity, including in respect of any dividends or other distributions paid or payable or otherwise accrued to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. in respect of any such equity, or

(B) where a Financing Entity is a trust, acquiring, holding or disposing of any beneficial interest in the Financing Entity, including in respect of any amounts paid or payable to Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc. as a beneficiary of such entity, or

2. To a Financing Entity that is a subsidiary of Ontario Power Generation Inc. or a subsidiary of Ontario Power Generation Inc.

[Note: Drafting still to be added to the EA consequential amendments: ***All fees charged by OPG as the FSM shall be approved by the OEB before they are included in the calculation of clean energy adjustments.]***

Add new consequential amendments to Ontario Energy Board Act, 1998 as follows:

Subsection 78.1(4) of the *Ontario Energy Board Act, 1998* would be amended as follows:

Board orders

(4) Subject to subsection (4.1), the Board shall make an order under this section in accordance with the rules prescribed by the regulations and may include in the order conditions, classifications or practices, including rules respecting the calculation of the amount of the payment.

Section 78.1 of the *Ontario Energy Board Act, 1998* would be amended by adding the following subsection:

(4.1) In making an order under this section in respect of Ontario Power Generation Inc., any activities, roles or circumstances whatsoever relating to Ontario Power Generation Inc. under or in relation to the *Intergenerational Fairness in Hydro Rates Act, 2017*, including, without limitation, its appointment as the Financial Services Manager under that Act, any fees charged for performing its duties as the Financial Services Manager under that Act, any cost consequences of being the Financial Services Manager under that Act, and any consequences of consolidating the assets and liabilities for accounting purposes of any special purpose financing entities **established under and for purposes established under that Act are not related to a prescribed generation facility or the output therefrom and the Board shall not consider the aforementioned when making an order under this section.**

Document comparison by Workshare Compare on April-19-17 10:16:27 AM

Input:	
Document 1 ID	interwovenSite://INVENTORYS1/TorysAtWork/23344385/1
Description	#23344385v1<TorysAtWork> - Fair Hydro Act (April 17 2017) Consultationv5 (002)ASEN
Document 2 ID	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Description	C:\NRPortbl\TorysAtWork\KHILL\23344385_4.docx
Rendering set	Firm_Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	45
Deletions	15
Moved from	1
Moved to	1
Style change	0
Format changed	0
Total changes	62

From: John Kim
To: "Montgomery, Kaitlin (MOF)"; Robin Lewis (MOF)
Cc: Bruno Amara; Ann Langleben (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 11:08:13 AM

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly.

I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

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To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

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To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

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On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

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From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
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Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: John Kim
To: Ronald Kwan
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 10:52:23 AM

It was fine but it'd be up to Rob to put something down on paper. Both Kaitlin and I have offered to help if he had further questions.

We're too jammed today to try to help Rob by actually starting to draft something….

From: Ronald Kwan
Sent: Friday, April 21, 2017 10:44 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

How did your call go? Does Rob better understand the context, structure and planned nature of the Trust (e.g., non-contributory and not intended as a tax avoidance vehicle)?

Is a discussion with OPG tax folks needed?

Ron

On Apr 20, 2017, at 11:38 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Rob,
>
> I will give you a call this afternoon.
>
> John
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Thursday, April 20, 2017 11:26 AM
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 20, 2017 9:21 AM
> **To:** Lewis, Robin (MOF)
> **Cc:** Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Scott, Rob,
>
> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>
> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>
> Ron
>
> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:
>
> > Scott,
> >
> > The proposal appears to have some characteristics of a tax avoidance scheme.
> >
> > The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
> >
> > I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
> >
> > We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
> >
> > This matter ought to be the subject of a ruling request.
> >
> > Regards,
> >
> > Rob Lewis
> >
> > ---
> >
> > **From:** Nelms, Scott (MOF)
> > **Sent:** April 19, 2017 5:48 PM
> > **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
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Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

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> Date: Sunday, Apr 16, 2017, 8:50 PM
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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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_____

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 10:00:41 AM

Ok, np

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Friday, April 21, 2017 10:00 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Sorry got held up - im on my way!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Friday, April 21, 2017 9:22 AM
To: Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup...see you in a bit!

> On Apr 21, 2017, at 9:20 AM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
> Would 10 work?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Friday, April 21, 2017 8:03 AM
> To: Montgomery, Kaitlin (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Would you mind coming by? How about 10:30?
>
>> On Apr 20, 2017, at 5:18 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>>
>> Yep whatever works - im happy to come that way if it's easier just
>> lemme know what works best
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:17 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Ok, good. Closer than I thought or maybe we can meet half way.
>>

>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF)
>> [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:16 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Were at 375 University (just south of Dundas)
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:15 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Where are you located....I might come by if I can.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF)
>> [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:09 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Yep I'm free al day
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:46 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Could we chat again tomorrow?
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF)
>> [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:24 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> For sure - im happy to sit in on any calls/meetings. I have
>> consistent meetings with ENE so im happy to test things as they arise
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:19 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

>>
>> Our concern is - whatever we do we want to ensure Energy is onside.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF)
>> [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:12 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Great - thx!
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:02 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Yup, I gave him a call just before that call with TBS. I think he's got enough background now.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF)
>> [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:01 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hey John - were you able to speak to rob?
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> From: John Kim <John.Kim@ofina.on.ca>
>> Sent: Thursday, April 20, 2017 11:38 AM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
>> Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF);
>> Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Hi Rob,
>>
>> I will give you a call this afternoon.
>>
>> John
>>
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 20, 2017 11:26 AM
>> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF)
>> <Robin.Lewis@ontario.ca>
>> Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara
>> <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF)
>> <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF)
>> <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF)
>> <Kaitlin.Montgomery@ontario.ca>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>

>> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>>
>> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
>> Sent: April 20, 2017 9:21 AM
>> To: Lewis, Robin (MOF)
>> Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan,
>> Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Scott, Rob,
>>
>> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>>
>> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>>
>> Ron
>>
>> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF)
<Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
>> Scott,
>>
>> The proposal appears to have some characteristics of a tax avoidance scheme.
>>
>> The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>>
>> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>>
>> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>>
>> This matter ought to be the subject of a ruling request.
>>
>> Regards,
>>
>> Rob Lewis
>>
>> From: Nelms, Scott (MOF)
>> Sent: April 19, 2017 5:48 PM
>> To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
>> Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann
>> (MOF); Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Rob, John Bruno,
>>
>> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences

arising from potentially large, unrealized gains associated with swaps etc.
>>
>> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>>
>> Thanks very much and apologies for the short notice, Scott
>>
>>
>> Scott Nelms
>> Electricity Investment and Governance Secretariat | Ministry of
>> Finance 7th Floor | 375 University ave. | Toronto, ON
>> w: (416) 212-6469 | c: (647) 330-2681
>> scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>
>>
>>
>>
>> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
>> Sent: April 18, 2017 9:24 AM
>> To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF);
>> Kim, John (OFA); Bruno Amara
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi,
>>
>> Please loop in John and Bruno too.
>>
>> Thanks,
>> Ron
>>
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: April-17-17 12:53 PM
>> To: Sriram Subrahmanyan (MOF)
>> <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca
>> >>; Ronald Kwan
>> <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Cc: Ann Langleben (MOF)
>> <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin
>> Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>;
>> Daniela Klassen (MOF)
>> <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Certainly. Will do.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:52 PM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Could you include Rob in your discussions, so we know exactly what they're proposing?
>>
>> From: Nelms, Scott (MOF)

>> Sent: April 17, 2017 12:50 PM
>> To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:11 PM
>> To: Kwan, Ronald (OFA)
>> Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF);
>> Klassen, Daniela (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> From: Ronald Kwan
>> Sent: Monday, April 17, 2017 10:44 AM
>> To: Subrahmanyan, Sriram (MOF)
>> Cc: Nelms, Scott (MOF)
>> Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Hi Sriram,
>>
>> See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.
>>
>> Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).
>>
>> Note that the timelines for drafting legislation generally for the Plan is very tight.
>>
>> Scott N. will ask for more detail from OPG.
>>
>> Would Ann and Rob be the right people to loop in on this?
>>
>> Ron
>>
>> Begin forwarded message:
>> From: "Nelms, Scott (MOF)"
>> <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
>> Date: April 17, 2017 at 9:48:35 AM EDT
>> To: "Kwan, Ronald (OFA)"
>> <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>>
>>

>> Sent with BlackBerry Work
>> (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com
>> /v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkK
>> EgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08
>> &m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga6
>> 8kJD-lWD3LWQMr31Kj552j0&e=>)
>>
>> From: Ronald Kwan
>> <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronal
>> d.Kwan@ofina.on.ca>>
>> Date: Sunday, Apr 16, 2017, 8:50 PM
>> To: Mayman, Gadi (OFA)
>> <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.
>> Mayman@ofina.on.ca>>, Nelms, Scott (MOF)
>> <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.N
>> elms@ontario.ca>>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Gadi, Scott,
>>
>> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>>
>> Ron
>> On Apr 16, 2017, at 5:01 PM, Gadi Mayman
<Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:
>>
>> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>>
>> On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF)
<Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:
>>
>> Hi Ron, Gadi,
>>
>> I hope you are enjoying the long weekend.
>>
>> As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
>>
>> Thanks,
>> Scott
>>
>> -----Original Message-----
>> From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
>> Sent: April-15-17 1:16 PM
>> To: Nelms, Scott (MOF)
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

>>
>> Scott,
>> It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
>> Thanks,
>> Ken
>>
>> -----Original Message-----
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 13, 2017 8:19 PM
>> To: RYFA Ken -TREASURY
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> *** Exercise caution. This is an EXTERNAL email. DO NOT open
>> attachments or click links from unknown senders or unexpected email.
>> ***
>>
>> Hi Ryan,
>>
>> I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
>>
>> Thanks,
>> Scott
>>
>>
>> Sent with BlackBerry Work
>> (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com
>> /v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkK
>> EgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08
>> &m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga6
>> 8kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?
>> u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI
>> 0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4
>> kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg10
>> 9ntjasiRYLBGTro&e= >)
>>
>> From: RYFA Ken -TREASURY
>> <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
>> Date: Thursday, Apr 13, 2017, 6:50 PM
>> To: Nelms, Scott (MOF)
>> <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.N
>> elms@ontario.ca>>
>> Cc: LEE John -TREASURY
>> <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.
>> com>>, WONG Leslie -LAWDIV
>> <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@o
>> pg.com>>, MCAULEY Tyler -LAWDIV
>> <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mca
>> uley@opg.com>>
>> Subject: Fair Hydro Plan - question on taxation
>>
>> Scott,
>>

>> I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
>>
>> 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
>>
>> Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
>>
>> Hope this helps.
>> Thanks,
>> Ken
>>
>>
>> _____
>>
>> _____
>>
>> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>>
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>> ----------
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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 5:16:55 PM

Ok, good. Closer than I thought or maybe we can meet half way.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:16 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Were at 375 University (just south of Dundas)

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 5:15 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Where are you located....I might come by if I can.

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From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
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Yep I'm free al day

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Could we chat again tomorrow?

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Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

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From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Scott, if you're busy, staff here could provide Rob some context if you're not available.

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This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
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Hi Rob, John Bruno,

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Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]

Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

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I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

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Cc: Nelms, Scott (MOF)
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Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

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Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

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Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
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Hi Ron, Gadi,

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From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-

TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-IWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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_____

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 4:19:48 PM

Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

Our concern is - whatever we do we want to ensure Energy is onside.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:12 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
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Thanks very much and apologies for the short notice, Scott

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-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>
<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 4:02:17 PM

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]

Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Tuesday, April 25, 2017 6:00:37 PM

Thanks!

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, April 25, 2017 5:29 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey john - nothing written from TPD just a conversation I'm told.

Keep ya posted if we get something though

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 25, 2017 4:49 PM
To: Montgomery, Kaitlin (MOF)
Subject: FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Kaitlin,

Question.....was there a written material TPD provide? If any, could you share?

Thanks,

John

-----Original Message-----
From: Lewis, Robin (MOF) [mailto:Robin.Lewis@ontario.ca]
Sent: Friday, April 21, 2017 11:14 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

John,

We do not have a draft as yet.

I understand that not all of the design features of the asset have been finalized.

Our considerations will be limited to those concerning a PII exemption for the income from the SPV.

Regards,

Rob

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 21, 2017 11:08 AM
To: Montgomery, Kaitlin (MOF); Lewis, Robin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF)

<Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From:	Adam Prokop
To:	John Kim; Bruno Amara; Shajee Kathirgamanathan; Salman Qadir
Cc:	Gavin He
Subject:	RE: EXTERNAL – Provincial Guarantee for Fair Hydro Program
Date:	Tuesday, April 18, 2017 11:33:22 AM

Hello John,

In terms of the triple AAA rating, the fact that the market portion will be 51% of the total trust and senior debt may help get the ratings higher than the Provincial rating initially before any default/trigger.

Kind regards,

Adam Prokop

-----Original Message-----
From: John Kim
Sent: Tuesday, April 18, 2017 11:28 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Take look pls.

-----Original Message-----
From: Ronald Kwan
Sent: Tuesday, April 18, 2017 11:27 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Hi,

Please take a look. Comments?

Ron

-----Original Message-----
From: Gadi Mayman
Sent: April-18-17 11:13 AM
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Subject: Re: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Thanks. Has TD seen this, or commented on it? The make whole provision, rather than just moving the outstanding bonds up to being provincial debt could be extremely expensive if the guarantee is triggered and exercised.

I assume the challenge to the rating is that we're not AAA, so the debt would be downgraded to our level, but this shows the flaw in the ratings methodology, because why would you want a guarantee from someone who is supposedly less credit worthy? This is definitely, in my mind, worth pushing back on.

Regards,
Gadi

Original Message

From: Nelms, Scott (MOF)
Sent: Tuesday, April 18, 2017 11:04 AM
To: Gadi Mayman
Subject: FW: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Fyi

-----Original Message-----

From: LEE John -TREASURY [mailto:john.s.lee@opg.com]

Sent: April 16, 2017 6:28 PM

To: Hume, Steen (ENERGY); Nelms, Scott (MOF)

Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); WONG Leslie -LAWDIV

Subject: Fw: EXTERNAL – Provincial Guarantee for Fair Hydro Program

Steen/Scott

Here is the initial view of the dealers on their ask. We can discuss further tomorrow. Maybe more efficient that we discuss prior to the group meeting in the afternoon

John

From: Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>

Sent: Thursday, April 13, 2017 9:15 PM

To: LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV

Cc: 'Sebastiano, Rocco'; 'Mullen, Max M.'; Maciel, Andrew; 'david.dalbello@rbccm.com'; 'Smith, Elliot'; 'Ms Victoria M. Turnbull'; Persaud, Donnie - Debt Capital Markets; 'Benaiah, Ian'; 'Fullerton, Rick'; Adalja, Sunil; Alvi, Shariq; Peric, Christiane

Subject: EXTERNAL – Provincial Guarantee for Fair Hydro Program

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Hey John, Ken,

Further to our discussion earlier today, please see the note below which outlines our collective views on the Provincial guarantee that would be required for the Fair Hydro Program. Happy to discuss further.

There are two types of "guarantees" that we are looking for from the Province in relation to this program on the basis that any debt issued under the Fair Hydro Program will be AAA-rated. In addition, the following is based on the understanding that the transition charges collected from prescribed consumers will begin upon the commencement of the program and will not be subject to any cap or restrictions.

The legislation must include a specific reference to the Province being required to provide a guarantee on debt repayment and servicing in certain circumstances.

The first is "Springing Guarantee", which would be via a legal agreement put in place when establishing the program and would require the Province to step in and assume responsibility for paying all amounts that are or become due in respect of (i) any of the outstanding funding obligations; (ii) the operation and maintenance of the financing entity; and (iii) any other amounts due in relation to the program that have not yet been paid (collectively, the "Fair Hydro Program Costs"). This Springing Guarantee would kick in should any of the following happen:

(1) There is any change in the legislation or regulations that is, or could be, adverse to finance entity noteholders or the legislation is determined to be ultra vires. In this situation, the Springing Guarantee would require the immediate repayment of all Fair Hydro Program Costs (including any makewhole prepayment obligations).

(2) There is a market disruption (i.e. there is a period of time when capital markets term funding is not available to take out the warehouse facilities (bank facility or ABCP)). In this situation, either (i) we start to charge ratepayers for principal recovery via transition charges; or (ii) the Province must be responsible for the immediate repayment of those warehouse facilities.

The period of time that must lapse before this Springing Guarantee becomes applicable with respect to the warehouse facilities can be set to accommodate a short term dislocation in the term funding market (6-18 months). We would note that depending on the size of the warehouse facility, if there is no term takeout for an extended period of time, it is likely that the warehouse facilities will also quickly reach their credit limits and the province would likely have to fund any future shortfalls if they wished to continue the program.

To the extent that the Springing Guarantee does not require the Province to make the repayment contemplated under scenario (1), but simply requires the Province to repay the debt in accordance with its original repayment terms, this

may adversely impact the rating of the Fair Hydro Program.

The second type of guarantee we are looking for from the province is a performance guarantee. This is not a credit guarantee. The performance guarantee would require the Province to stand behind certain obligations of the Servicer (initially IESO) in the program. This performance guarantee would be included as part of the Securitization documents for the program. It would, amongst other things, require the province to stand behind (including taking responsibility for helping remedy any breaches in) the representations, warranties, or covenants made by the servicer. It would also require the province to ensure that the servicer performs its servicing activities as set out in the securitization documents and if it does not, put in place an alternative servicer who would perform those servicing activities. The performance guarantee would also include standing behind any indemnities that may be owing by the servicer.

Donnie Persaud | Executive Director | Debt Capital Markets | CIBC Capital Markets | CIBC World Markets Inc.

161 Bay Street, 5th Floor, Toronto ON M5J 2S8 | Tel: 416-594-7511 | Fax: 416-594-7760 |
donnie.persaud@cibc.com<mailto:donnie.persaud@cibc.com>

[cid:image001.jpg@01D2B497.94C53820]

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From: Bruno Amara
To: Ronald Kwan
Cc: Gavin He; John Kim
Subject: RE: Edits from Bevan
Date: Saturday, April 15, 2017 7:47:27 PM

Hi Ron

I only recall seeing the "$2.5b per year on average" Below is news release language. I also checked ENE's cab sub. I don't recall seeing the alternate "$25b over ten years". I'll let you know if I come across anything else.

Under current forecasts, the immediate reduction in the GA would be about $2.5 billion per year on average over the first 10 years, with annual interest costs not exceeding $1.4 billion.

From: Ronald Kwan
Sent: Saturday, April 15, 2017 7:25 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Edits from Bevan

Hi,

Please review and was there other messaging?

Thanks,
Ron

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** April 15, 2017 at 7:23:44 PM EDT
> **To:** "Tim Schuurman (MOF)" <Tim.Schuurman@ontario.ca>
> **Cc:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>, "Scott Thompson (CAB)" <Scott.Thompson@ontario.ca>, "Ronald Jaikaran (MOF)" <Ronald.Jaikaran@ontario.ca>, "Selena Esmail (MOF)" <Selena.Esmail@ontario.ca>, "Rowe, Alana (MOF)" <Alana.Rowe@ontario.ca>, "David McLean (MOF)" <David.McLean@ontario.ca>
> **Subject: Re: Edits from Bevan**
>
> Hi,
>
> My recollection is that the $2.5 billion on average over ten years was used in

Energy's deck for the media and that was then used to brief the FAO staff and I thought was provided to the AG staff too.

I don't recall other messaging used for that.

I will double- check.

Ron

> On Apr 15, 2017, at 5:21 PM, Schuurman, Tim (MOF) <Tim.Schuurman@ontario.ca> wrote:
>
> Ron, Gadi - these two follow ups are for you guys. If you could help us out by getting us some info and suggested wording by Monday at 10am, we can build it into the papers for final sign off.
>
> Tim
>
> From: Ingram, Kelsey (MOF) <Kelsey.Ingram@ontario.ca>
> Sent: Saturday, April 15, 2017 3:06 PM
> To: Jaikaran, Ronald (MOF); Rowe, Alana (MOF)
> Cc: Schuurman, Tim (MOF); Jackson, Kelly (MOF); Mendes, Elizabeth (MOF)
> Subject: Edits from Bevan
>
> Hey Ron and Alana,
>
> Please see below some notes/edits from Bevan. Is it possible to incorporate the first three edits for Monday's sign off?
>
> Also we're expecting PO to get back to us on the name for KidsPharma as well as providing further language /detail on the Basic Income sites and the pilot project itself. I'll touch base with you guys as soon as I know more. We've been clear we need them to follow up by Monday morning.
> Happy to discuss!
>
> Cheers,
>
> Kelsey

1 - On page 5 of Chapter 2 for the Fair Hydro Plan:

It currently reads: the reduction in the GA charge would be about 2.5B per year on average over the first ten years.

This is factually true but is not how we are presenting this (and I realise it is not as written about costs) as it might imply the cost is an additional 25B for the first and the following ten years which is not true for example. So we use 25B as total cost over x years. Or something like that. We had aproved language.

2 - On pg 16 of CH2- attached to charts of new osap examples

Can the osap calculator url be added

3 - A question related to Section B - Finances and Econ outlook, page 3 - Ontario's level of Accumulated Deficit as per cent of gdp.

Are there other jurisdictions, national or subnational (of a certain size) that use this measure as their overall deficit? Ie do not have to include capital debt expense. Top subnational etc, which we need (and already have) a full response to.

(this one is anticipating what the primary critique will be of our fiscal plan and trying to proactively defend our record...if we don't have time to incorporate it, we can look to include info into our comms materials).

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Bruno Amara
To: John Kim
Subject: RE: Electricity Outlook
Date: Tuesday, March 07, 2017 8:50:50 AM

OK, I'll review once more

From: John Kim
Sent: Tuesday, March 07, 2017 8:50 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Electricity Outlook

Hi Bruno,

Let's initiate the send out pls.

Thanks,

John.

From: Ronald Kwan
Sent: Tuesday, March 07, 2017 8:50 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: Re: Electricity Outlook

Hi,

For sure. Last Friday would have been better.

Ron

On Mar 7, 2017, at 8:41 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> Brampton is in AO….and we're both at 70%.
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S:\Users\CEF\Hydro 2017\OEFC\RbP\Outlook\02. February

Bruno

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To:	John Kim
Subject:	RE: Electricity Outlook
Date:	Tuesday, March 07, 2017 7:00:19 AM
Importance:	High

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S:\Users\CEF\Hydro 2017\OEFC\RbP\Outlook\02. February

Bruno

Gavin, we picked up the revised DRC forecast.

From: Bruno Amara
To: John Kim
Subject: RE: Electricity Outlook
Date: Tuesday, March 07, 2017 9:38:36 AM

John,

I think Francisco's suggestion would be useful. OEP and OB will want to see that at some point. The main objective is to get TBS/OEP to pick up the current outlook numbers. We could then address the 84% to 70% pivot. I don't think it's crucial to do this at the same time i.e., if it holds up the outlook distribution.

Bruno

From: John Kim
Sent: Tuesday, March 07, 2017 9:10 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Fwd: Electricity Outlook

FYI

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** March 7, 2017 at 9:08:58 AM EST
> **To:** Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>
> **Subject: Re: Electricity Outlook**
>
> Hi Francisco, John,
>
> Would it be helpful to send the two underlying spreadsheets together, noting the pivot to 70%, which is fiscally-neutral across the two products, but shown for interim actuals purposes to be closer to Public Accounts?
>
> And note as well the OPG number adjustments to match the IOD adjustment (assuming those have gone up?).
>
> Please bcc me.
>
> Thanks,
> Ron
>
> On Mar 7, 2017, at 9:00 AM, Francisco Chinchon

<Francisco.Chinchon@ofina.on.ca> wrote:

Hi,

We are good too. I did share the latest AO slides with OEP and OTB and staff have been communicating.

What takes more time for staff to fully grasp is how the unpacking of the multiple sales affect each line although neutral on aggregate.

Thanks,

Francisco

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Hi,

For sure. Last Friday would have been better.

Ron

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From: Ronald Kwan
To: John Kim; Bruno Amara
Cc: Gavin He
Subject: RE: Energy Models
Date: Wednesday, April 19, 2017 6:42:16 PM
Sensitivity: Confidential

Hi John,

We should also work on a briefing deck for the Minister on the IESO financing ask, and we may as well include the equity injection process too.

The deck should likely include an upfront section to remind the Minister of the proposed structure of the IESO reg asset and OPG purchase of the asset and OPG's planned sources of funds, and the accounting treatment of the IESO and OPG.

That would be context for the potential short term needs and long-term financing ask of the IESO.

The deck should outline considerations and options.

And should the ST and /or LT facilities be better from the OFA or OEFC?

Doesn't need to be long, but the key points should be there.

Thanks,
Ron

From: John Kim
Sent: April-19-17 18:09
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Yes, we will be in touch with them soon. We have done a lot of sensitivities for Energy's model so should be in reasonable shape.

I'm assuming also that TBS Centre of Excellence would bring some expertise of their own.

John

From: Ronald Kwan
Sent: Wednesday, April 19, 2017 6:04 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>

Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi John,

I think the report back may be on the 9th, but they still seem to be targeting LRC for the 1st and Cabinet on the 3rd, to introduce the legislation on the 4th, so, soon.

Ron

From: John Kim
Sent: April-19-17 18:01
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Ron,

We have looked at the models but we haven't focused on this request yet as we're working to get the Document-related items done today and tomorrow. We will look to focus on this, I'm expecting, starting tomorrow when the BNs, Qs and As and the doc materials are done. This is not to say we haven't looked at the models. We're familiar with Energy's modelling with some added materials. OPG's file, we will need to spend more time on. I'd expect sometime next week we would try to sit down with these guys.

My understanding is that this is related to the report back for the May 9th timeline? I understood that the report back was originally for May 1st but it's been moved to the 9th. Felix wasn't sure if this would be ready in time.

John

From: Ronald Kwan
Sent: Wednesday, April 19, 2017 5:53 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi,

How is the review coming along? Would you provide me a status update.

Thanks,
Ron

From: Ronald Kwan
Sent: April-12-17 17:41
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (EDU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

The model from the Ministry of Energy

The model from the OPG

I am not sure if you have already received these or not (and my apologies if this is a duplicate arrival in your inbox). Having said that, we wanted to make sure that you and your team had a chance to review these as well. As you know, we have been asked to review the model and the assumptions, do some sensitivity analysis and scenario testing to create a risk based outlook. Hope your team can be partners in the process.

We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From:	Shajee Kathirgamanathan
To:	Salman Qadir; Bruno Amara; Adam Prokop; Gavin He
Cc:	John Kim
Subject:	RE: Energy Models
Date:	Thursday, April 13, 2017 9:36:16 AM
Sensitivity:	Confidential

Thanks Salman. Just moved it here to keep all our recent work in the same place: \\ofina.on.ca\ofadfs\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure\GA and OPG Modelling (TBS)

Thanks

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Salman Qadir
Sent: Thursday, April 13, 2017 8:52 AM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Not sure where to best save this, so put it here for now:

Z:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA and OPG Modelling (-TBS)

From: Shajee Kathirgamanathan
Sent: Wednesday, April 12, 2017 6:06 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi,

We received something similar to the second attachment during the fair hydro plan work; but the first attachment looks like it's from OPG directly and is brand new from my perspective.

Thanks

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Wednesday, April 12, 2017 5:50 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Take a look. Did we have any of this material previously? At any rate, per Ron's email, I think we will need to get on top of it. We can discuss tomorrow.

Bruno

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

Ron, today we received two models from Energy re: GA Smoothing. Here is:

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We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From:	Salman Qadir
To:	Shajee Kathirgamanathan; Bruno Amara; Adam Prokop; Gavin He
Cc:	John Kim
Subject:	RE: Energy Models
Date:	Thursday, April 13, 2017 8:51:58 AM
Sensitivity:	Confidential

Not sure where to best save this, so put it here for now:

Z:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA and OPG Modelling (-TBS)

From: Shajee Kathirgamanathan
Sent: Wednesday, April 12, 2017 6:06 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi,

We received something similar to the second attachment during the fair hydro plan work; but the first attachment looks like it's from OPG directly and is brand new from my perspective.

Thanks

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Wednesday, April 12, 2017 5:50 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Take a look. Did we have any of this material previously? At any rate, per Ron's email, I think we will need to get on top of it. We can discuss tomorrow.

Bruno

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Hi John, Bruno,

Please review and work with Didem and TBS on this.

Thanks,
Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

Hi Ron!

Long time, no see… Hope all is well with you and your family (both at home and at the OFA!)

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We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From:	Shajee Kathirgamanathan
To:	Bruno Amara; Salman Qadir; Adam Prokop; Gavin He
Cc:	John Kim
Subject:	RE: Energy Models
Date:	Wednesday, April 12, 2017 6:06:28 PM
Sensitivity:	Confidential

Hi,

We received something similar to the second attachment during the fair hydro plan work; but the first attachment looks like it's from OPG directly and is brand new from my perspective.

Thanks

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Bruno Amara
Sent: Wednesday, April 12, 2017 5:50 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

Take a look. Did we have any of this material previously? At any rate, per Ron's email, I think we will need to get on top of it. We can discuss tomorrow.

Bruno

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Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

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Thanks,

Ron

From: Proulx, Didem (TBS) [mailto:Didem.Proulx@ontario.ca]
Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
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Sensitivity: Confidential

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Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

From: Proulx, Didem (TBS)
To: John Kim
Cc: Bruno Amara
Subject: RE: Energy Models
Date: Wednesday, April 26, 2017 9:17:41 AM
Attachments: Financial Model and the Risk Based Outlook.msg
Sensitivity: Confidential

Hi John, Hi Bruno!

So sorry for the delay in getting back to you.

Now that the direction/approach has been approved and announced, our intent is not to question the current construct or the policy decision that has been made, rather it is for us to collectively work together to identify potential financial risks and to create a risk-based outlook that would allow the government to proactively manage these risks.

I am attaching the email we sent to energy as well, as it provides a list of questions we have already shared with them. By no means an exhaustive list, these questions we were intended to initiate a dialogue and start building that risk based outlook.

Clearly lots of work ahead. Looking forward to working with you, and benefitting from your insights and advice on this journey.

Should we set up some time for next week?

Cheers,
Didem

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April-25-17 3:10 PM
To: Proulx, Didem (TBS)
Cc: Bruno Amara
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Didem,

Following up on this.

Thanks,

John

From: John Kim
Sent: Wednesday, April 19, 2017 6:15 PM
To: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Energy Models
Sensitivity: Confidential

Hi Didem,

Let's aim for a sit down session here at the OFA early next week.

If you can give us a sense of the work that you're doing and your objectives, that'd be helpful. This week, we're all hands on deck with the Document but early next week we're hoping to connect.

John

From: Ronald Kwan
Sent: Wednesday, April 12, 2017 5:41 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Didem Proulx (MTCU) <Didem.Proulx@ontario.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Energy Models
Importance: High
Sensitivity: Confidential

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Thanks,
Ron

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Sent: April-12-17 17:13
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Sophie Liu (TCU) <Sophie.Liu@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>
Subject: Energy Models
Importance: High
Sensitivity: Confidential

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We hope to have a discussion amongst ourselves tomorrow to discuss our early observations and questions. Then the plan is to meet and work with Energy.

Can you please let us know who from your team we should include in these discussion?

Cheers,
Didem

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Proulx, Didem (TBS) [Didem.Proulx@ontario.ca]
To: Tim Christie (ENERGY) [Tim.Christie@ontario.ca]; Justin Malecki (ENERGY) [Justin.Malecki@ontario.ca]
CC: Sophie Liu (TCU) [Sophie.Liu@ontario.ca]; Sandy Ng (MCSCS) [Sandy.Ng@ontario.ca]; Ben Shannon (EDU) [Ben.Shannon@ontario.ca]; Dan Singh (EDU) [Dan.Singh@ontario.ca]; Veinot, Cindy (TBS) [Cindy.Veinot@ontario.ca]; Nadine Petsche (MOF) [Nadine.Petsche@ontario.ca]; Felix Fung (MOF) [Felix.Fung@ontario.ca]
Subject: Financial Model and the Risk Based Outlook
Date: Tuesday, April 18, 2017 16:55:03

Dear Tim and Justin,

First of all, let me say thank you once again for making time for our call on April 3, 2017 and for giving us a high level overview of the model that was used to develop the cost estimates that were included in the ministry's March submission. Late last week, we received a copy of the model and the one that developed by OPG. Seeing the models and details included in the spreadsheets have been very helpful. Thank you for the part you have played in getting these spreadsheets over to us.

As mentioned during our call, our desire to better understand the model, the assumptions and financial impacts is not intended to question the current construct or the policy decision that has been made, rather it is for us to collectively work together to identify potential financial risks and to create a risk-based outlook that would allow the government to proactively manage these risks.

With that in mind, we wanted to see if we can get together to talk about the models in detail. We have outlined some questions below, which can hopefully help serve as a guide for our discussions. Having said that, given you are so much closer to this file than we are, if there is anything we may have missed, please feel to let us know/add it to the list of discussion items.

1. Understanding the Assumptions:

o What are the assumptions included in the base case scenario – explicitly and implicitly?

o Would it be possible to breakdown the assumptions into categories:

▪ Exogenous variables (like exchange rates and interest rates, which will the government has no control over and has to take as given)

▪· Policy parameters being introduced as part of this package (like % increases allowed in any given period, etc.)

▪· Endogenous variables (electricity usage patterns, natural gas-electricity substitution, etc.) which may or will change over time, but can be impacted through other measures.

o The OPG deck had included the sensitivity analysis of a number of the key variables. Have there been any runs/scenarios testes to see how the overall impacts would change if a number of the variables change at the same time? Like best case, worst case scenarios?

o What are variables in the previous (8% proposal) that have included this model? How could the observed variances in the previous proposal manifest within the current proposal and what actions are planned to mitigate this risk?

o Are there elements or assumptions that have been excluded from the model (e.g. changing population demographics and associated usage patterns, etc.). Do we have a rough sense of what potential carry on risks from excluding what is out-of-scope?

2. Understanding the Impact of the Model:

•□□□□□□□ We appreciate that the model is based on the average Toronto Hydro customer, and that the rebate/impact will be 25% on the average customer (with any given customers rebate being different given their consumption, location/distributor, etc.). Has there been any analysis done on:

i. what these differentiated impacts may be (based on different usage patterns, different geographies (urban/rural), at the sub-population level?

ii. how the financial requirements may go up and down based on different users and their usage patterns? How will that risk/fluctuations be managed? How will these financial impacts be distributed among the government, the entity and the rate payers?

•□□□□□□□ Based on our discussion, we understand that you had made the simplifying assumption that interest is not paid through the smoothing period, and rolled into the debt balance. If our understanding of the OPG model is accurate, they are assuming that interest payments are made along the way. Given they are carrying the same debt ceiling number and a very similar trajectory, should we assume that they are deferring/smoothing the assets in slightly different way?

3. Understanding the Impact of the Baseline:

Given all the financial impacts are calculated from the black line, we would greatly appreciate having a better understanding of the base (black line) – IESO forecast (2016 actual - 2035). Our understanding is that the baseline model already includes:

i. the following cost components: distribution, transmission, regulatory charges, DRC, Commodity, HST, and the 8% rebate

ii. the following factors/considerations:

- Cancellation of LRP (large renewable procurement) II
- Cancellation of EFW (energy from waste)
- Expansion of ICI (Industrial Conservations Initiatives
- Each component changes in a non-linear manner per year over time up to 2035; assumptions/factors to inform these changes unknown
- "Commodity" and "Distribution" are the two biggest components and hence price drivers.
- Looking at the factors with the most significant changes:
  - Does it already take into account the transmission assets reaching retirement age?
  - Does it already take into account other investment decisions in conservation, generation and transmission?
- Other external factors: climate change; technology disruption; continually decreasing demand and over-supply
  - IESO forecasts Ontario's base load generation from 215-2020 to exceed demand by 42.3 million MWh
  - When we sell to other jurisdictions at loss ($32.6M in 2014; selling at loss since 2006), how does it affect the bill?
  - 2035-2050: straight line extrapolation only; any changes in the above factors would significantly impact the typical bill?

So sorry for the rather lengthy email. Hope we can meet to discuss in greater detail. We would be happy to set something up, if you are agreeable.

Thank you,

Didem

From:	Shajee Kathirgamanathan
To:	John Kim; Salman Qadir; Adam Prokop
Cc:	Gavin He
Subject:	RE: Equity Financing
Date:	Monday, April 24, 2017 1:33:41 PM
Importance:	Low

Thanks for that. Though, I not sure if it relates exactly to the $1B from the OEB report.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, April 24, 2017 12:50 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Equity Financing

Fyi.

Shajee, take a look at the 50% until legislation passes comment. Not sure if it relates to what we were looking at with OEB's RPP report.

From: John Kim
Sent: Monday, April 24, 2017 12:49 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Equity Financing

Fyi.

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Monday, April 24, 2017 12:44 PM
To: Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>
Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>
Subject: RE: Equity Financing

Hi,

Energy has agreed to record these additional purchases of OPG shares on its financials.

In terms of the appropriation for 2017-18, Energy proposes the following (subject to input from others):

- The total debt forecast for the year starting May 1 2017 ending April 30 2018 is $2.5B including interest. Taking one month off that to align with the province's fiscal year gives $2.3B; of which up to 49% is anticipated to be financed via equity injections. This results in an equity injection requirement of approximately $1.1B for this fiscal year.

- Proposed forecasting buffer:

    - OEB has only allocated 50% of the benefit until the legislation passes, which may reduce the requirement for May and June. However, given that we don't know with certainty how the OEB will reassess RPP, we propose to leave the appropriated equity amount at $1.1B.
    - OPG also plans to borrow a small percentage of the 49% from the market. This amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.
    - Both of these elements also provide a buffer against other forecasting uncertainties.

We are working with ENE staff to develop a TB submission that will incorporate this request. In the meantime, we are happy to chat if you have questions.

Thanks,
Scott

-----Original Message-----
From: Veinot, Cindy (TBS)
Sent: April 22, 2017 10:48 AM
To: Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

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Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

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> Subject: FW: Equity Financing - Working Group Note
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> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
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> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note

>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>
> Regards,
> Salman
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> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
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> Greetings,
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> Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.
>
> Kind regards,
>
> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
>
>
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> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

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To:	Veinot, Cindy (TBS); Ken Kandeepan; Helen Graham (MOF)
Cc:	Felix Fung (MOF); Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Nadine Petsche (MOF); Bharat Patel (MOF)
Subject:	RE: Equity Financing
Date:	Monday, April 24, 2017 1:23:29 PM

Yes. We have linked in with Energy Corporate, so they are aware and working through the issue.

From: Veinot, Cindy (TBS)
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amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.

- Both of these elements also provide a buffer against other forecasting uncertainties.

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> Sent: Saturday, April 22, 2017 12:08 AM
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> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
> Subject: RE: Equity Financing
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> Sent: Friday, April 21, 2017 8:30 PM
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> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
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> FYI
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> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)

> Subject: FW: Equity Financing - Working Group Note
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> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
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> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
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> Hi Felix,
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> Forwarding this to you as well. Please see attached.
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> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
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> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
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From:	Nelms, Scott (MOF)
To:	Veinot, Cindy (TBS); Ken Kandeepan; Helen Graham (MOF)
Cc:	Felix Fung (MOF); Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Nadine Petsche (MOF)
Subject:	RE: Equity Financing
Date:	Monday, April 24, 2017 12:43:53 PM

Hi,

Energy has agreed to record these additional purchases of OPG shares on its financials.

In terms of the appropriation for 2017-18, Energy proposes the following (subject to input from others):

- The total debt forecast for the year starting May 1 2017 ending April 30 2018 is $2.5B including interest. Taking one month off that to align with the province's fiscal year gives $2.3B; of which up to 49% is anticipated to be financed via equity injections. This results in an equity injection requirement of approximately $1.1B for this fiscal year.

- Proposed forecasting buffer:

    - OEB has only allocated 50% of the benefit until the legislation passes, which may reduce the requirement for May and June. However, given that we don't know with certainty how the OEB will reassess RPP, we propose to leave the appropriated equity amount at $1.1B.
    - OPG also plans to borrow a small percentage of the 49% from the market. This amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.
    - Both of these elements also provide a buffer against other forecasting uncertainties.

We are working with ENE staff to develop a TB submission that will incorporate this request. In the meantime, we are happy to chat if you have questions.

Thanks,
Scott

-----Original Message-----
From: Veinot, Cindy (TBS)
Sent: April 22, 2017 10:48 AM
To: Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Agreed. OPG Trust has not yet been created.

The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.

The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.

Cindy

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
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Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Hi Helen

I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.

You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.

Thanks

Ken k

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Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	Fung, Felix (TBS)
To:	Scott Nelms (ENERGY); Montgomery, Kaitlin (MOF); Ken Kandeepan; John Kim; Psinas, John (TBS)
Cc:	Helen Graham (MOF); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS)
Subject:	RE: Equity Financing
Date:	Friday, April 21, 2017 8:30:02 PM

Sorry, 1 more question on this that I hope MOF/ENE and the OFA can help me answer. Scott/Katilin, your finance corporate shop may be able to help with this question too.

I believe the Trust will be held by OPG. Since this is case, then it wouldn't be an operating asset that we need to show in the Estimates (as the Estimates generally don't show assets of consolidated entities). Instead, we would need to show a payment from MOF or Energy to the trust, and then a reversing adjustment below the line (but all of this would be in expense, not assets)?. In other words, how does MOF/ENE propose this to be shown in Printed Estimates?

Thanks - happy to chat further.

Felix

From: Fung, Felix (TBS)
Sent: April-21-17 8:17 PM
To: Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS)
Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS)
Subject: RE: Equity Financing

Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:

1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
2) confirmation of the location of where this operating asset will show up (Ministry, admin data info)
3) a business case rationale explaining the purpose and why this is needed

As per our conversation, we are currently in the midst of preparing for Printed Estimates - as such, we have an extremely short runway for this item to be included (we have until possibly Tuesday).

Once we have the necessary information from you, we will then need to send it up to senior officials here, and also ensure that DMs of both Finance and Energy have an opportunity to review/sign off.

Thanks - happy to chat further should you have any questions.

Felix

From: Strang, James (TBS)
Sent: April-20-17 4:36 PM
To: Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF)
Cc: Graham, Helen (TBS); Fung, Felix (TBS); Hosick, Sarah (TBS)
Subject: FW: Equity Financing

Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).

Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.

The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.

James

From: Fung, Felix (TBS)
Sent: April 11, 2017 1:43 PM
To: Veinot, Cindy (TBS)
Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

FYI

From: Strang, James (TBS)
Sent: April-11-17 11:58 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS)
Subject: FW: Equity Financing - Working Group Note

The OFA note we received.

From: Fung, Felix (TBS)
Sent: April 4, 2017 10:47 AM
To: Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]

Sent: April-04-17 10:45 AM
To: Fung, Felix (TBS)
Cc: Bruno Amara; Adam Prokop
Subject: FW: Equity Financing - Working Group Note

Hi Felix,

Forwarding this to you as well. Please see attached.

Regards,
Salman

From: Adam Prokop
Sent: Tuesday, April 04, 2017 10:38 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>
Subject: Equity Financing - Working Group Note

Greetings,

Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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Cc:	Helen Graham (MOF); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS)
Subject:	RE: Equity Financing
Date:	Friday, April 21, 2017 8:17:34 PM

Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:

1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
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Subject: Equity Financing - Working Group Note

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From:	Carlos Yep
To:	Adam Prokop; Bruno Amara; Salman Qadir; Shajee Kathirgamanathan; Mike Manning; John Kim; John Psinas; "Montgomery, Kaitlin (MOF)"; Tobias P. Whitfield (MOF); Mike Manning; James Devine
Subject:	RE: Equity Financing - Working Group Note
Date:	Tuesday, April 04, 2017 12:43:21 PM
Attachments:	BN - GA Equity Injection Structure v7 cy Markup.docx

Adam,

Attached are some minor edits, I have shortened a couple of bullets in order to maintain that the Province has the most flexibility

-The OFA and Energy will retain a dealer to provide independent advice to the Province

-The long term debt issued by OPG Trust may be callable

Re: advisor to be hired by OFA+Energy and call feature of the bond

Regards

Carlos

From: Adam Prokop

Sent: Tuesday, April 04, 2017 10:38 AM

To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>

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Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2R1]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- Longer term debt will be issued as soon as possible, subject to market timing constraints.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA and Energy will ~~is also expected to~~ retain a dealer to provide ~~due diligence and~~ independent advice to ~~for~~ the Province~~'s equity injection [TBC] into OPG and long-term borrowing by OPG Trust~~ [TBC].

- The long term debt issued by OPG Trust may ~~also~~ be callable ~~to buy back the bonds once the financed GA starts to be repaid~~. [TBC]

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [CY5]: Advice may be mostly for financing long term issuance by the trust

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Commented [JK6]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [CY7]: Call option is to add flexibility

Commented [JK8]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

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Commented [FC9]: Not quarterly?

Commented [JK10R9]: Monthly now.

Commented [FC11]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [SQ212]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From:	Fung, Felix (TBS)
To:	Scott Nelms (ENERGY); Pratima Gounden (ENERGY)
Cc:	Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Nadine Petsche (MOF); Bharat Patel (MOF); Helen Graham (MOF); Veinot, Cindy (TBS); Ken Kandeepan; Chris Skubel (MGS)
Subject:	RE: Equity Financing
Date:	Tuesday, April 25, 2017 11:02:00 AM

Thanks Scott. This is helpful. We have reached out to Pratima Gounden in Energy's corporate shop on this. We understand that the Ministry will provide more information on this request as part of the May 9 TB/MBC submission - however, as discussed previously, in order for us to include this operating asset in Printed Estimates, we need written documentation - requesting operating asset asap. This could be in the form of a CAO memo from Rob to Karen Hughes requesting that this operating asset be included as part of Energy's Printed Estimates.

We need this memo asap (i.e., tomorrow at the latest so that it can be considered as part of Document Day), so that we can address the technical elements for Printed Estimates.

Please let us know if you have any questions.

Thanks,
Felix

From: Nelms, Scott (MOF)
Sent: April-24-17 1:23 PM
To: Veinot, Cindy (TBS); Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS); Patel, Bharat (TBS)
Subject: RE: Equity Financing

Yes. We have linked in with Energy Corporate, so they are aware and working through the issue.

From: Veinot, Cindy (TBS)
Sent: April 24, 2017 1:00 PM
To: Nelms, Scott (MOF); Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS); Patel, Bharat (TBS)
Subject: RE: Equity Financing

Thanks Scott – do you know if Energy has communicated with their controller's group re: Energy recording the investmen?

Cindy

From: Nelms, Scott (MOF)

Sent: April-24-17 12:44 PM
To: Veinot, Cindy (TBS); Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: RE: Equity Financing

Hi,

Energy has agreed to record these additional purchases of OPG shares on its financials.

In terms of the appropriation for 2017-18, Energy proposes the following (subject to input from others):

- The total debt forecast for the year starting May 1 2017 ending April 30 2018 is $2.5B including interest. Taking one month off that to align with the province's fiscal year gives $2.3B; of which up to 49% is anticipated to be financed via equity injections. This results in an equity injection requirement of approximately $1.1B for this fiscal year.

- Proposed forecasting buffer:

    - OEB has only allocated 50% of the benefit until the legislation passes, which may reduce the requirement for May and June. However, given that we don't know with certainty how the OEB will reassess RPP, we propose to leave the appropriated equity amount at $1.1B.
    - OPG also plans to borrow a small percentage of the 49% from the market. This amount has not yet been finalized, but could represent up to 5% of the total financing requirement. Given this uncertainty, we would suggest maintaining the request for $1.1B.
    - Both of these elements also provide a buffer against other forecasting uncertainties.

We are working with ENE staff to develop a TB submission that will incorporate this request. In the meantime, we are happy to chat if you have questions.

Thanks,
Scott

-----Original Message-----
From: Veinot, Cindy (TBS)
Sent: April 22, 2017 10:48 AM
To: Kandeepan, Ken (OFA); Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Agreed. OPG Trust has not yet been created.

The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.

The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.

Cindy

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: Ken Kandeepan
Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Hi Helen

I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.

You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.

Thanks

Ken k

> On Apr 22, 2017, at 8:18 AM, Graham, Helen (TBS) <Helen.Graham@ontario.ca> wrote:
>
> Ken, we had understood 1.2 is possibly a go-forward number, but the correct amount for 17-18 should be prorated, as there will not be 12 months of activity. Is that correct?
>
> I thought the trust actually has already been created, but I could be wrong about that.
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Ken Kandeepan
> Sent: Saturday, April 22, 2017 12:08 AM
> To: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas,

John (TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
> Subject: RE: Equity Financing
>
>
> Hi All
>
> There seems to be considerable confusion on this issue and hopefully I can clear that up with this email.
>
>
> · The Trust has nothing to do with the Province, it will be created by OPG and will be consolidated with OPG, not with the Province and is essentially not an issue with regard to the estimates process.
>
> · The objective of this estimates exercise is to allow the Province, or more specifically the Ministry of Energy to invest a certain amount of funds in OPG. In other words the Province's equity investment in OPG will increase.
>
> · The Province provides cash to OPG, reducing its cash assets and its Investment in OPG, an asset account will increase, in effect one asset is exchanged for another.
>
> · As such an operating asset needs to be set up hopefully in Energy's estimates that allows the Province to make the payment to OPG.
>
> · The amount will be around $1.2 billion, however, Scott should able to provide a more precise number.
>
>
> Thanks and I am available for a discussion tomorrow, if anyone wishes further clarification, pls call me on my cell at 647-202-4373.
>
> Ken K
>
>
>
>
> From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
> Sent: Friday, April 21, 2017 8:30 PM
> To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
> Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC)

<Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
> Subject: RE: Equity Financing
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> Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).
>
> Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.
>
> The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.
>
> James
>
> From: Fung, Felix (TBS)
> Sent: April 11, 2017 1:43 PM
> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> FYI
>
> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> The OFA note we received.
>
> From: Fung, Felix (TBS)
> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
>
>

> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>
> Regards,
> Salman
>
>
> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
>
> Greetings,
>
> Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.
>
> Kind regards,
>
> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
>
>
> _____
>
> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this

message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	Shajee Kathirgamanathan
To:	Adam Prokop
Cc:	Bruno Amara; John Kim
Subject:	RE: Equity Injection
Date:	Thursday, April 06, 2017 11:41:04 AM

Thanks Adam. Will take a look.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Adam Prokop
Sent: Thursday, April 06, 2017 11:41 AM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection

Hello Shajee,

Here is my first stab at the rough draft for tomorrow's discussion.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Shajee Kathirgamanathan
To: Adam Prokop
Cc: Bruno Amara; John Kim
Subject: RE: Equity Injection
Date: Thursday, April 06, 2017 11:45:57 AM

Thanks, renamed and saved here:
S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure\BN - Equity Injection - Additional Concerns v1.docx

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Adam Prokop
Sent: Thursday, April 06, 2017 11:41 AM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
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Subject: Equity Injection

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Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Salman Qadir
To:	John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan
Cc:	Gavin He
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 2:58:29 PM

A share price is the reference point…maybe I'm thinking too simplistically, but if we are getting equity in return, we know the dollar value of that and we know how many shares we received in return… the $/share is just the calculation or vice versa… I would assume you need that.

To Francisco's point, is it that it is irrelevant in the note's context and that we can just say that it will be at book value…probably.

I believe it is also consistent with the Province's original equity contribution when OPG was first set up. I guess the question is if any changes in share structure happens in the future (i.e. OPG goes private and does an IPO), will the share price the accountant's and the documentation records it at, be relevant?

From: John Kim
Sent: Wednesday, April 12, 2017 2:51 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Equity Injection Note

I have two main questions. 1) Do we need the par value of the shares to be issued and 2) Should the Province (Finance) insist on consideration throughout the period of equity injection.

On 1), I really don't know why we need one (I think also echo'ed by Francisco) but FTD and CMD staff have consistently insisted on it so far. I would like to get our position firmed up before widening the discussion with FTD and CMD.

From: Bruno Amara
Sent: Wednesday, April 12, 2017 2:23 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: FW: Equity Injection Note

See SFPB's comments. I'll set up a meeting.

From: Darren Scanlan

Sent: Wednesday, April 12, 2017 2:02 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Equity Injection Note

Hi John, Bruno,

Please find attached comments on the note. Happy to discuss.

Thanks,
Darren

From: Francisco Chinchon
Sent: Wednesday, April 12, 2017 2:00 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Darren was finalizing our comments. We could discuss after you review.

From: John Kim
Sent: Wednesday, April 12, 2017 1:59 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Should we have internal division chat first or invite CMD and FTD right away? I'm flexible.

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To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

..in the discussion this afternoon? If so I'll send the note. Would 3pm work?

From: John Kim
Sent: Wednesday, April 12, 2017 1:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>

Subject: RE: Equity Injection Note

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To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

Hi Francisco/Darren

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Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: John Kim
To: Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Salman Qadir
Cc: Gavin He
Subject: RE: Equity Injection Note
Date: Wednesday, April 12, 2017 2:51:04 PM

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Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Bruno Amara
To:	Darren Scanlan
Cc:	Francisco Chinchon; John Kim
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 2:22:06 PM

Thanks for the comments. I set up a meeting so I can get staff in discussion as well.

From: Darren Scanlan
Sent: Wednesday, April 12, 2017 2:02 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
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Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Darren Scanlan
To:	John Kim; Bruno Amara
Cc:	Francisco Chinchon
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 2:02:01 PM
Attachments:	BN - GA Equity Injection Structure_Apr12_SIFB_markup2.docx

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GA FINANCING – EQUITY INJECTION OVERVIEW

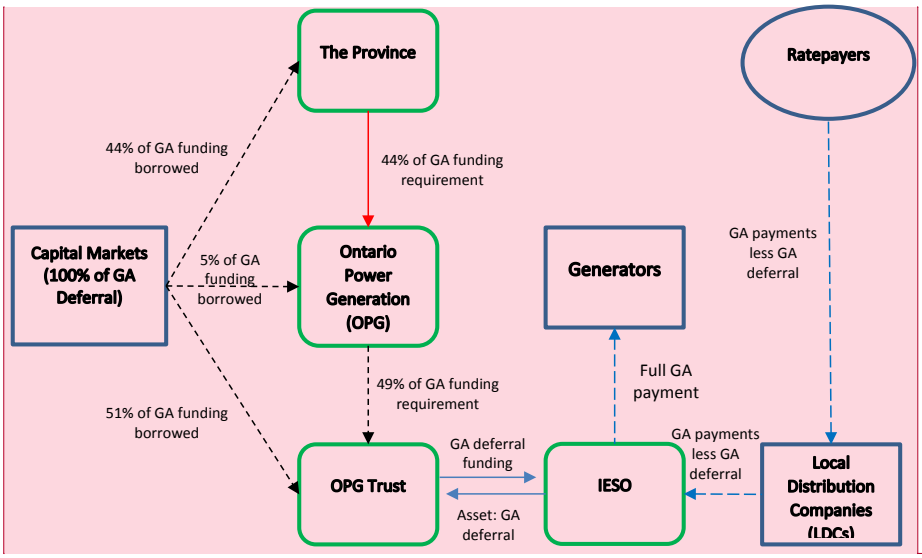
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



Commented [FC1]: I would suggest rewording the 44% label going to the Province to "Provincial borrowing" as now somehow suggests that there is a perfect matching between the borrowing and the equity contribution.

OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover all financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection. Although the Province would be entitled to any net income associated with the incremental equity it would mean that it would be out-of-pocket for servicing the cost of debt associated with the equity contribution.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG if it is to match the purchase (different timing would introduce carrying costs to OPG and/or the Province). In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

Commented [FC2]: I don't believe the $20 mark is relevant. The key concept is that equity is being issued at book value.

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]

Commented [JK3]: I think this is because the financing and administrative costs would be recovered through ratepayers?

- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]

Commented [DS4]: More for discussion, has OPG (on behalf of the OPG Trust) raised any concerns on borrowing from the markets on a monthly basis?

For the borrowing through OEFC, would just need to ensure approvals are in place in advance as OEFC Board meets quarterly. Shouldn't be an issue though as I think this has been done in the past where OEFC provides a total borrowing limit and OPG can draw down over a period of time.

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province, through the Ministry of Energy, would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

- The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

    - Operating Assets are fiscally neutral, they represent a balance sheet item, but given they are included in the Estimates they are visible to the public, in this case through the Minister of Energy.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

    - ~~Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province~~

Commented [JK5]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC6R5]: That is correct.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by any ROE earned on the incremental equity. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

Commented [FC7]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity. In general preferred shares are treated at 50% for rating rations (check).

3. Redemption of Shares at a Premium

   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing, that would mean that the Province may need to demonstrate that the expected ROE is higher than the cost of funding these new shares. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or

otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From:	Francisco Chinchon
To:	John Kim; Bruno Amara
Cc:	Darren Scanlan
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 2:00:14 PM

Darren was finalizing our comments. We could discuss after you review.

From: John Kim
Sent: Wednesday, April 12, 2017 1:59 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

Should we have internal division chat first or invite CMD and FTD right away? I'm flexible.

From: Bruno Amara
Sent: Wednesday, April 12, 2017 1:57 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

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From: John Kim
Sent: Wednesday, April 12, 2017 1:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

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From: Bruno Amara
Sent: Wednesday, April 12, 2017 11:04 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

Hi Francisco/Darren

Attached is latest equity injection note which pulls together the various discussions to date, including the note that you had sent to us previously regarding the H1 process. If you could review, perhaps we could discuss later this afternoon as your time permits. I think next step would be to review with folks upstairs who are on the equity working group (Carlos, Mike Manning, Jim Devine).

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	John Kim
To:	Bruno Amara
Cc:	Francisco Chinchon; Darren Scanlan
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 1:58:54 PM

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From: Bruno Amara
Sent: Wednesday, April 12, 2017 1:57 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
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Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Bruno Amara
To:	John Kim
Cc:	Francisco Chinchon; Darren Scanlan
Subject:	RE: Equity Injection Note
Date:	Wednesday, April 12, 2017 1:57:05 PM

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From: John Kim
Sent: Wednesday, April 12, 2017 1:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: Equity Injection Note

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Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

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Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: John Kim
To: Bruno Amara; Francisco Chinchon; Darren Scanlan
Subject: RE: Equity Injection Note
Date: Wednesday, April 12, 2017 1:55:32 PM

And Ken indicated he'd like to partake as well (along with John P.).

From: Bruno Amara
Sent: Wednesday, April 12, 2017 11:04 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
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Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	John Kim
To:	Bruno Amara
Subject:	RE: Equity Injection Note
Date:	Tuesday, April 18, 2017 9:27:02 AM

Yes, let's circulate ahead of the meeting pls.

From: Bruno Amara
Sent: Tuesday, April 18, 2017 9:21 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: Equity Injection Note

Hi John

Regarding meeting this afternoon: In our meeting with SIFB we followed up on a couple of issues but didn't go through SIFB edits individually. In 1st attachment is updated note where I accepted the SIFB edits that I thought were straightforward. 2nd attachment is with all SIFB edits/comments.

Let me know if you want to circulate this version for meeting this afternoon or other?

Bruno

From: Darren Scanlan
Sent: Wednesday, April 12, 2017 2:02 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Equity Injection Note

Hi John, Bruno,

Please find attached comments on the note. Happy to discuss.

Thanks,
Darren

From: Francisco Chinchon
Sent: Wednesday, April 12, 2017 2:00 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
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Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
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Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>
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Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Equity Injection Note

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Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Bruno Amara
To:	John Kim
Subject:	RE: Equity Injection WEorking Group
Date:	Monday, March 20, 2017 9:12:35 AM

Yes. Do you know who is leading/chairing this?

From: John Kim
Sent: Monday, March 20, 2017 8:07 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Equity Injection WEorking Group

Fyi and could you lead this working group for EFB pls?

From: Ken Kandeepan
Sent: Friday, March 17, 2017 11:58 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: Equity Injection WEorking Group

Hi John

As discussed pls include John Psinas as a member of this working group. John will ensure that all debt related accounting issues plus cash flow/cash management considerations are addressed, until there is a representative from OPCD, he can also ensure that any accounting issues that relate to the Province are communicated in a timely fashion to OPCD for resolution.

Thanks

Ken k

From:	John Kim
To:	Bruno Amara
Subject:	RE: Equity Injection WEorking Group
Date:	Monday, March 20, 2017 9:13:08 AM

I think Greco does but if we could forward the calls to John P.

From: Bruno Amara
Sent: Monday, March 20, 2017 9:13 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Equity Injection WEorking Group

Yes. Do you know who is leading/chairing this?

From: John Kim
Sent: Monday, March 20, 2017 8:07 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Equity Injection WEorking Group

Fyi and could you lead this working group for EFB pls?

From: Ken Kandeepan
Sent: Friday, March 17, 2017 11:58 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Christina Zhang <Christina.Zhang@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
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As discussed pls include John Psinas as a member of this working group. John will ensure that all debt related accounting issues plus cash flow/cash management considerations are addressed, until there is a representative from OPCD, he can also ensure that any accounting issues that relate to the Province are communicated in a timely fashion to OPCD for resolution.

Thanks

Ken k

From:	John Kim
To:	Bruno Amara
Cc:	Shajee Kathirgamanathan; Adam Prokop; Salman Qadir; Gavin He
Subject:	RE: Equity Injection note
Date:	Tuesday, April 11, 2017 6:00:03 PM
Attachments:	BN - GA Equity Injection Structure_Apr10 v6_Markup.docx

Thanks, this looks great. With some minor wording additions. Could we clean up the change-track, maybe other than the comments, and share with SIFB? I've given Francisco the heads-up that this was our intent.

As discuss, wouldn't mind a strategy on either a meeting with SIFB first separately, or jointly with FTD and CMD. Might be beneficial to have that meeting with SIFB first to hammer out the equity return ideas but that can be weighed with the time delay.

John

From: Bruno Amara
Sent: Tuesday, April 11, 2017 5:24 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Equity Injection note

Hi John,

Attached is draft Equity Injection note for your review.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
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GA FINANCING – EQUITY INJECTION OVERVIEW

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Thie Province ~~would be required to~~is moving ahead with its support for the Global Adjustment (GA) ~~f~~smoothing mechanism~~inancing plan~~. ~~by~~Under the mechanism, ~~-~~the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), ~~that would~~ representing 44% of total GA financing requirements. This document ~~serves to~~ provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the P~~p~~rovince to implement the equity injections. ~~implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.~~

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GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG ~~will~~ would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years.~~the "right to collect" assets from the IESO in return for cash proceeds.~~ IESO would use the cash from the OPG Trust~~,~~ to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process

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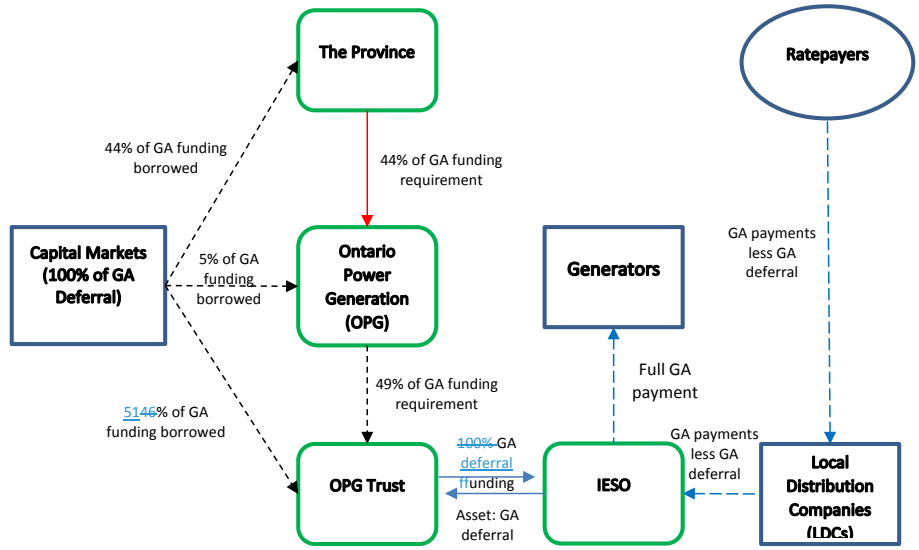

~~OP~~OPG Trust w~~ould ill be structured to~~ finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. ~~OPG would contribute the remaining 49% as subordinated debt.~~

The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

~~Annual payments will be received by~~ OPG Trust would recover ~~for~~ financing and~~&~~ administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection.]

~~STAFF COMMENTS: UNCLEAR IF THESE FINANCING COSTS/ANNUAL PAYMENTS WILL BE RECEIVED BY OPG TRUST [TBC: FROM IESO OR RATEPAYERS DIRECTLY]?~~

~~THE MECHANISM BY WHICH THE FINANCING IS CONDUCTED IS YET TO BE FINALIZED. BOTH OPG ON BEHALF OF OPG TRUST AND THE OFA ON BEHALF OF THE PROVINCE ARE SEPARATELY LOOKING TO ENGAGE 'FINANCIAL ADVISORS' FOR THE PURPOSE OF~~

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Commented [AP1]: From IESO according to white paper who would collect the payments and remit to OPG.

Commented [BA2]: Also confused about comment: Should that be "…..received by OPG Trust"

Commented [AP3R2]: Yes, you are right. Corrected.

~~DETERMINING OPTIMAL FINANCING STRUCTURES, E.G. DEBT COVENANTS, TERMS AND CONDITIONS SUCH AS IF TO BE CALLABLE, REDEEMABLE, ETC. [ALSO SEE BELOW.]~~

Commented [JK4]: Check with SIFB or CMD on the right terminology.

Commented [FC5]: To me this is part of the terms and conditions

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~~BORROWING~~

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- ~~THE 51% FINANCING CONDUCTED BY OPG TRUST AND THE 5% FINANCING VIA OPG WILL INITIALLY BE FINANCED THROUGH A SHORT TERM CREDIT FACILITY WHICH WILL BE OBTAINED BY OPG. OPG HAS COMMUNICATED THAT THIS MAY BE THROUGH SHORT TERM DEBT, RAISED FROM THE CANADIAN MONEY MARKETS.~~

  - ~~OPG STAFF FURTHER CLARIFIED THAT THIS WOULD BE FACILITATED THROUGH A NEW FACILITY AND TO BE PUT IN PLACE BY OPG TRUST AND NOT ANY OF THE EXISTING FACILITIES OPG CURRENTLY HAS IN PLACE.~~

Commented [JK6]: Did I get this right?

Commented [FC7]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- ~~LONGER TERM DEBT WILL BE ISSUED AS SOON AS POSSIBLE, SUBJECT TO MARKET TIMING CONSTRAINTS.~~

  - ~~OPG TO RETAIN 3 DEALERS TO ADVICE ON THE LONG-TERM BORROWING AND FINANCING OF THE GA.~~

  - ~~THE OFA IS ALSO EXPECTED TO RETAIN A DEALER TO PROVIDE DUE DILIGENCE AND INDEPENDENT ADVICE FOR THE PROVINCE'S EQUITY INJECTION [TBC] INTO OPG AND LONG-TERM BORROWING BY OPG TRUST [TBC].~~

Commented [JK8]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

- ~~THE LONG TERM DEBT ISSUED BY OPG TRUST MAY ALSO BE CALLABLE TO BUY BACK THE BONDS ONCE THE FINANCED GA STARTS TO BE REPAID. [TBC]~~

Commented [JK9]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

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EQUITY INJECTION PROCESS OVERVIEW ~~MECHANISM~~

~~OVERVIEW~~

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- IESO proposes that OPG Trust would purchase the GA~~E~~ deferral asset on a monthly basis. The ~~The~~ Province would, therefore, be required to ~~is expected to~~ provide monthly equity injections to OPG.

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- In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of ~~at a value of~~ $20 per share. [for discussion]

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The proposed process would be as follows:

- ~~These share issuances currently environed envisioned to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].~~

  - ~~This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the `GA financing program has subsided.~~

  - ~~Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.~~

  ~~[TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).~~

  - ~~[TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below.~~

  ~~Process~~

- OPG Trust would receive ~~the~~ notice from the IESO to purchase the asset from IESO.

- The Province~~OFA~~ in turn would ~~A notice would be~~ received notice from OPG for~~by~~ the OFA ~~for~~ to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]

- Separately, OPG and OPG Trust would ~~take out~~raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.`

~~**[let's make this as general as necessary]**~~

Decisions and Approvals Required for Province's Equity Financing

Commented [FC10]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP11]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

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Commented [JK12]: I think this is because the financing and administrative costs would be recovered through ratepayers?

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

    - The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares return.

    - Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province

~~[HOW PROVINCE WILL RECEIVE RETURNS]~~MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Commented [JK13]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [JK14]: "in" missing in front?

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...Under the mechanism, the Province will be providing an equity injection into OPG whothat would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection. The following methods couldan be utilized to ensureallow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG shwould expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity.

~~Cumulative Dividend~~

~~The Province and OPG could~~

~~1.~~ Redemption of Shares at a Premium

Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financings. Under such a scenario, an appropriate pricing or premium on

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buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

3.

~~Other Considerations:~~

~~OPG will use the Province's equity injection to purchase subordinated debt from OPG Trust. The Province should be requesting the same return on its equity contribution as to the rate OPG receives from OPG Trust. This return could be higher than the Province's cost of funds.~~

~~Scenarios:~~

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LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.

[TBC] TBS would provide an annual allocation, with a three-year program review cycle.

•

~~***END OF MAIN SECTION***~~

THE TEXT BELOW IS EQUITY INJECTION DISCUSSION GATHERED FROM A COUPLE OF NOTES. LET'S REVIEW WITH EYE TO DETERMINING WHICH, IF ANY POINTS BELONG IN MAIN SECTION ABOVE AND ORGANIZING REMAINING POINTS.

OTHER PROVINCIAL EQUITY INJECTION ADDITIONAL CONCERNSCONSIDERATIONS AND RISKS / POTENTIAL RISKS TO THE SPV ARRANGEMENT

these share issuances currently envisioned to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].

- This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
- Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
- [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).
- [TBC] OPG staff have indicated that the current plan is to pay no interest or dividends for the 44% equity injection. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in or would potentially entail risks described under the Consideration section below. OPG staff have signaled to CEFD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection'inflection' point where the ratepayers start to pay down the deferred GA.
- Under the current plan, only the 56% funded through capital markets, directly by OPG Trust or by OPG, would be paid interest over time.
- While the implementation of theis proposed currently viewed as with no flow through of interest or dividends over timecouldincurr
  - or the SPV arrangement could be viewed as receiving an interest free loan or subsidy from the Provinceassociated withborrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g. through a form of dividend reinvestment planA preferred equity structure

2) EQUITY INJECTIONS

KEY POINTS:

Commented [FC15]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [AP16]: OPG TB has mentioned a 10% premium on buyback, but this could still be construed as a benefit as the 10% return over a 10 year period does not reflect the risk premium. Threatens the GBE status of OPG, which could lead to full consolidation in Public Accounts.

Commented [BA17]: I'll stand to be corrected by you CFA types, but in economics an inflection point is the point where a curve changes from concave to convex or vice versa. Here we are talking about two lines are crossing. Just want to make sure we have correct terminology so that we don't get called us out later by some (other) smarty pants.

Commented [SQ218]: How?

The pro-rata that occurs is on the IESO asset being purchased.
-The Province keeps its interest costs outside the Trust as its an equity injection.
-Assume OPG flows through its interest costs through operations?
-How does OPGT pay for debt-servicing cost of the debt it is raising?

Commented [AP19]: This is not necessarily true as an acceptable premium associated with the buyback feature would mitigate this concern. Maybe keep the subsidy issue separate as mentioned above? The main risk is that the Province will be paying several hundred millions to billions of interest over time with no cash flow from OPG. OPG in turn would have the same amount of cash on its books – either idle or used for their own initiatives.

Commented [JK20]: Explain. Is this risk to OPG Trust, OPG or the Province.

- The [legislation, corporate rules, corporate structure, by-laws etc.] that allow for equity injections should have consideration that it is in the Province's ***economic/financial interests*** to proceed with monthly equity injections in order to finance the trust, with appropriate return on risk.

- Equity injections can be viewed as a subsidy if the province is not compensated for its risks.
    - This may be mitigated with a redeemable feature for the equity at a properly valued premium.
- Consideration is also required for the Province's cash needs in order to finance the borrowing for equity injections.
    - This may be mitigated with ongoing dividend payments and/or a redeemable feature for the equity.
    - Issuance of preferred equity may allow for frequent, stable dividend payments, but may be viewed as OPG debt by credit rating agencies.
    - A redeemable feature would provide for sufficient cash for the province to pay back bondholders.

Details

- The monthly equity injections from the Province to OPG may be considered a subsidy due to the frequency and large outstanding balance.
    - A GBE receiving subsidies frequently for a long period of time (in this case monthly and for several years) may threaten the GBE status since the GBE could be portrayed as being reliant on government funding.
    - This risk is mitigated as only 44% of the GA structure is funded through equity injections and that OPG Trust is a SPV.
- It may be necessary to quantify the overall return from the GA financing structure to the Province to ensure that the Province is "made whole".
    - There is a cost of borrowing associated with the 44% equity injection.
    - If the return from the GA Financing structure is below this amount, the economic rationale behind the equity injection may be lacking.
    - The risk attached to the equity injection (and its eventual composition of the subordinate debt of OPG Trust) may also have to be quantified as a return when considering the feasibility of the initiative.

Commented [SK821]: Or maybe to put it another way, nothing here should preclude the Province's right to return a sufficient return on its equity investment given the risk premium.

Commented [SK822]: Where is this written? Can i have the source?

Commented [AP23R22]: IPSAS 1 defines a GBE as an entity that has all the following characteristics:
(a) Is an entity with the power to contract in its own name;
(b) Has been assigned the financial and operational authority to carry on a business;
(c) Sells goods and services, in the normal course of its business, to other entities at a profit or full cost recovery;
(d) Is not reliant on continuing government funding to be a going concern; and
(e) Is controlled by a public sector entity.

Commented [AP24R22]: From PSAB PS 3070
06 A **government business enterprise** is a government organization that has all of the following characteristics:
(d) It can, in the normal course of its operations, maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity.
.30 A government business enterprise should, in the normal course of its operations, be able to maintain its operations and meet its liabilities from revenues received from sources outside of the government reporting entity. These revenues include not only amounts from the sale of goods and services, but also transfers 3 received from other governments or sources outside of the government reporting entity.
.32 A government business enterprise differs from other government organizations in its relationship to the government, and its objectives, and operations. A government enterprise represents a financial asset of the government and given its autonomy, business-oriented objectives, and financial self-sufficiency, equity accounting is appropriate.

- [For example, the economic rationale behind the Hydro One one-time equity injection was that it would help maintain Hydro One's valuation for the IPO. If Hydro One had borrowed debt instead, its value could potentially be lower, leading to lower proceeds to the Province. Taking valuation multiples into consideration, every dollar in equity injected likely resulted in a significantly higher return than a dollar].

- If the Province is not being seen as compensated for its risk behind the equity injections, then the equity injections could be viewed as a subsidy.

- Having a redeemable feature on the equity injection for the Province, with a properly valued premium, could allow the Province to be made whole.

  - Would also allow the return of capital to the Province to help settle its external debt obligations related to the equity injection.

- If the equity injections were in the form of preferred shares with a cumulative dividend, it could allow for frequent cash flows from OPG to the Province.

  - The shares could be redeemable at par after a certain lock-up period (similar to Hydro One Series 1 and 2 preferred shares).

  - However, credit rating agencies may consider this as a form of debt which could affect OPG's credit ratings or the Trust's ratings.

  - The dividend yield would have to reflect, to a certain extent, the risk or cost of the Province.

From:	John Psinas
To:	Bruno Amara; John Kim; Francisco Chinchon; Darren Scanlan; Shajee Kathirgamanathan; Salman Qadir; Adam Prokop; Carlos Yep; Gavin He
Cc:	Mike Manning; Ken Kandeepan; George Sakura
Subject:	RE: Equity Injection
Date:	Tuesday, April 18, 2017 4:30:17 PM
Attachments:	BN - GA Equity Injection Structure_Apr18_markup JP.docx

Bruno,

Some comments. Following up with OPCD to see if Energy will take the lead. Also, will be working with Carlos and TD consultants on the value of the shares.

Thanks.

--John

416-325-8072

From: Bruno Amara
Sent: Tuesday, April 18, 2017 12:52 PM
To: John Kim <John.Kim@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Subject: RE: Equity Injection

Hello All:

Attached is a draft note for this afternoon's discussion.

Bruno

<< File: BN - GA Equity Injection Structure_Apr18_markup.docx >>

-----Original Appointment-----
From: John Kim

Sent: Thursday, April 13, 2017 4:19 PM
To: John Kim; Francisco Chinchon; Bruno Amara; Darren Scanlan; Shajee Kathirgamanathan; Salman Qadir; Adam Prokop; Carlos Yep; John Psinas
Cc: Mike Manning; Ken Kandeepan
Subject: Equity Injection
When: Tuesday, April 18, 2017 3:30 PM-4:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Boardroom CEFD LARGE

Hopefully, we can regroup on the equity injection following a busy short week. Hoping to regroup with a sit-down to discuss the path forward.

Thanks,

John

GA FINANCING – EQUITY INJECTION OVERVIEW

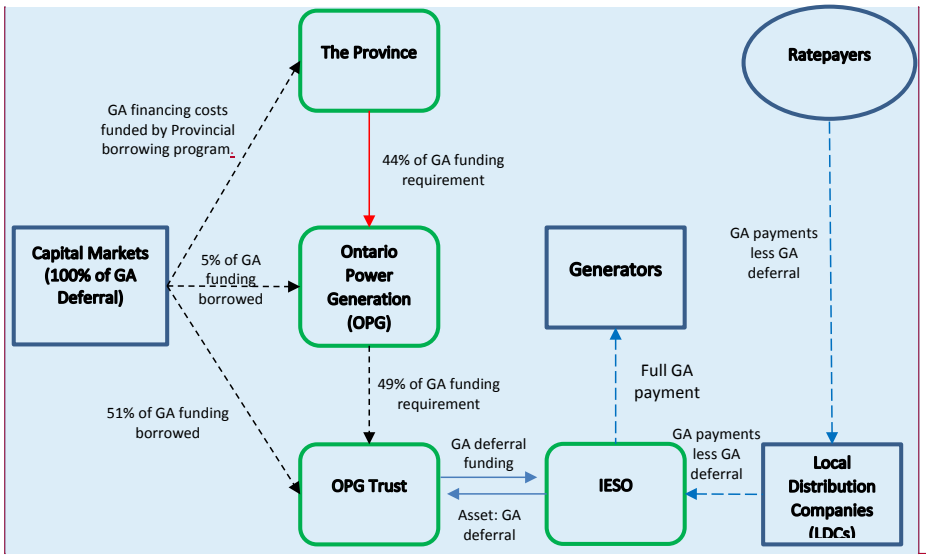
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

Commented [FC1]: I would suggest rewording the 44% label going to the Province to "Provincial borrowing" as now somehow suggests that there is a perfect matching between the borrowing and the equity contribution.

Commented [BA2R1]: See rewording

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover all financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection. Although the Province would be entitled to any net income associated with the incremental equity it would mean that it would be out-of-pocket for servicing the cost of debt associated with the equity contribution.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG if it is to match the purchase (different timing would introduce carrying costs to OPG and/or the Province). In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

Commented [FC3]: I don't believe the $20 mark is relevant. The key concept is that equity is being issued at book value.

Commented [JP4]: Book value or some other valuation needs to be worked out. Not clear it is $20

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]
- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own ~~or through the OEFC~~ as it currently does?]
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [JK5]: I think this is because the financing and administrative costs would be recovered through ratepayers?

Commented [JP6]: The financing costs still need to be worked. To be determined.

Commented [DS7]: More for discussion, has OPG (on behalf of the OPG Trust) raised any concerns on borrowing from the markets on a monthly basis?

For the borrowing through OEFC, would just need to ensure approvals are in place in advance as OEFC Board meets quarterly. Shouldn't be an issue though as I think this has been done in the past where OEFC provides a total borrowing limit and OPG can draw down over a period of time.

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province, through the Ministry of Energy, would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

Commented [JP8]: Confirming with OPCD to see if Energy will take the lead.

- The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

    - Operating Assets are fiscally neutral, they represent a balance sheet item, but given they are included in the Estimates they are visible to the public, in this case through the Minister of Energy.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

Commented [JK9]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC10R9]: That is correct.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by

Commented [FC11]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

any ROE earned on the incremental equity. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity. In general preferred shares are treated at 50% for rating rations (check).

3. Redemption of Shares at a Premium

   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing. That would mean that the Province may need to demonstrate that the expected ROE is higher than the cost of funding these new shares. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

Commented [JP12]: There should be no carrying costs nor return on investment on a consolidated basis. My understanding is there is no dividends.

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
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- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From:	Bruno Amara
To:	John Kim; Francisco Chinchon; Darren Scanlan; Shajee Kathirgamanathan; Salman Qadir; Adam Prokop; Carlos Yep; John Psinas; Gavin He
Cc:	Mike Manning; Ken Kandeepan
Subject:	RE: Equity Injection
Date:	Tuesday, April 18, 2017 12:52:05 PM
Attachments:	BN - GA Equity Injection Structure_Apr18_markup.docx

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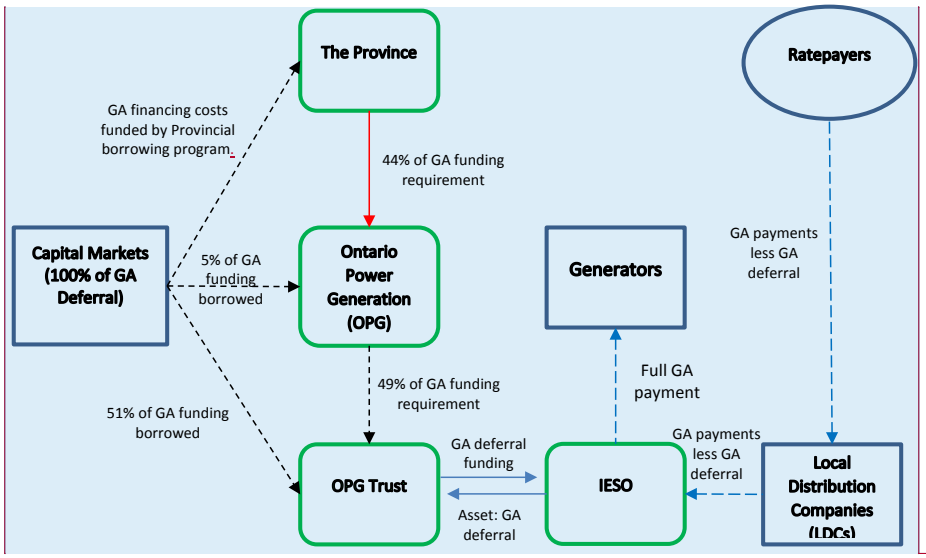

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Commented [FC7R6]: That is correct.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by

Commented [FC8]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

any ROE earned on the incremental equity. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity. In general preferred shares are treated at 50% for rating rations (check).

3. Redemption of Shares at a Premium

   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing. That would mean that the Province may need to demonstrate that the expected ROE is higher than the cost of funding these new shares. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From: John Kim
To: Ronald Kwan
Cc: Francisco Chinchon
Subject: RE: Equity Injection
Date: Sunday, April 02, 2017 11:44:17 AM

Hi Ron,

I have essentially conveyed that to Toby.

I was thinking more from the perspective of enhanced role for the division than any concerns about the limited or narrow approach CMD may be taking.

John

From: Ronald Kwan
Sent: Sunday, April 02, 2017 11:11 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: Re: Equity Injection

Hi John,

This procurement path idea comes from Gadi and Mike.

I would suggest that if MOF Legal wants to express considerations on the process that they convey them to CMD directly.

Do you have concerns that if this path is chosen that it could ultimately delay or limit the advice available to the Province, compared to the tight timelines and the advice other entities can access in the interim?

Ron

On Apr 1, 2017, at 9:38 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> I was thinking about the call I had with Toby last Friday. He was suggesting whether the CMD's proposal to hire narrow scope advisor is sufficient. That was essentially where he was going with his inquiries. While this is my assessment and nobody else's, I do wonder if there's scope for us to get more involved in the procurement process. Just throwing it out there.
>
> Not sure how representative Toby's comments were (or if I'm reading them right) within MOF Legal but they seem to be concerned on the accounting focus of perhaps

the advice thus far.

Also, happy to engage Francisco's group's expertise, as always.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From: John Kim
To: Ronald Kwan
Subject: RE: Equity Injection
Date: Friday, April 21, 2017 11:23:46 AM
Attachments: TDS_v2p.docx

Sure, pls. see attached. I butchered it a little….and sought input from Francisco.

It'd be ideal if I could send it back by noon.

John

From: Ronald Kwan
Sent: Friday, April 21, 2017 11:22 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: Equity Injection

Hi,

Would you send me the draft and markup.

Thanks,
Ron

On Apr 21, 2017, at 11:07 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> Ken had drafted a first cut of terms of reference to TD as advisor on the capital contribution…I've made significant edits. Would you mind if I send it back as staff level comments?
>
> I believe it'd be sent out by CMD.
>
> John
>
> Y. John Kim
> Director, Electricity Finance Branch
> Corporate & Electricity Finance Division
> Ontario Financing Authority
> Ph: 416-212-6996
> Email: john.kim@ofina.on.ca

GA FINANCING – TD'S ADVICE SOUGHT ON CAPITAL CONTRIBUTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide capital ~~equity injection~~ to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

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Context

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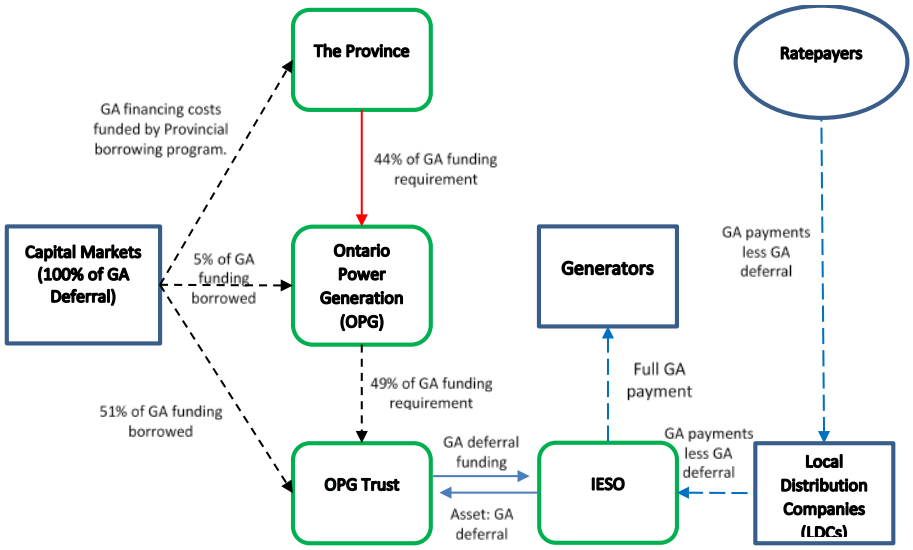
The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its capital

contributions ~~equity injection~~ through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the capital contributions ~~equity injection~~ from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the capital ~~money~~ provided to OPG ~~no matter if~~whether this is done as common equity or through other mechanisms, including the potential used of preferred shares.~~as 'equity injection' for the purpose of the GA deferral proposal~~.
- Under the current state of discussion, t~~T~~he capital contribution ~~equity injection~~ w~~ould~~~~ill~~ be provided on a monthly/quarterly basis to OPG by the Province.
- The capital contribution ~~equity injection~~ results in the Province, the sole shareholder of OPG receiving common shares, or another type of security, from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cash flow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the capital contribution ~~equity injection~~ the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.
    - ~~OPG c~~Could~~an~~ the structure involve issuing~~e preference~~ preferred shares ~~again~~ with some ~~kind~~ form of optionality for repayment. Preferred~~ence~~ shares, especially those with a specified annual dividend schedule could potentially~~will~~ ensure that the Province remain~~s~~ whole in terms of the incremental interest costs it would incur~~s~~ on the ~~equity injection~~capital contribution.
- Other factors to be considered for repayment:

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Commented [JK1]: I suggest we delete this and have TD opine on options.

- Should the senior and subordinated debt be ranked as the same and if so does this impact market access
- Should the senior debt be repaid first or should repayment be on a pari-passu basis
- OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
- Eventually, the Province would need to have a discussion with OPG on the path forward.

Commented [JK2]: Not sure if this is needed here.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in being able to recover its capital ~~getting the money back,~~ as stipulated in the GA deferral plan.
- The Province needs to be kept whole with respect to any financial cost that may arise from making and carrying forward the capital contributions.
- For regulatory purposes, there may be an interest in insuring that the capital contributions ~~equity injection is~~are considered a true equity in OPG's capital structure [TBD but still require consideration].
- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].

From: Francisco Chinchon
To: John Kim
Subject: RE: Equity injection
Date: Monday, April 03, 2017 8:54:03 AM
Attachments: BN - GA Equity Injection Structure v6_Markup2.docx

---

Hi,

A few comments and questions.

Thanks,

Francisco

From: John Kim
Sent: Saturday, April 01, 2017 9:35 PM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: Equity injection

Comments would be welcome. This, surprisingly simple note, I think, is quite well done.

Thanks.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

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GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with ~~O~~ntario ~~P~~ower ~~G~~eneration to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)~~henceforth~~ referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be ~~required~~ structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
  - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
  - Annual payments will be received by OPG Trust for financing costs.
    - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions~~, specialized features~~ such as if to be callable, redeemable, etc. [Also see below.]

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
  - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.

Commented [JK1]: Not sure if we want to keep conveying that we're doing something to goal seek, regardless of original intent

Commented [AP2]: Legislation being proposed from the White Paper suggest that IESO would collect these payments to be remitted to OPG Trust.

Commented [JK3R2]: Also, confirmed through OPG staff.

Commented [JK4]: Check with SIFB or CMD on the right terminology.

Commented [FC5R4]: To me this is part of the terms and conditions

Commented [JK6]: Did I get this right?

Commented [FC7]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- Longer term debt will be issued as soon as possible, subject to market timing constraints.~~-~~
  - OPG to retain~~s~~ 3 dealers to advice on the long-term borrowing and financing of the GA.
  - The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].
- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK8]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK9]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province ~~will~~ is expected to provide monthly equity injections to OPG
- In return, OPG ~~will~~ would issue new shares to the Province at a value of $20 per share.
- These share issuances ~~will~~ currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC10]: Not quarterly?

Commented [FC11]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ212]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4~~March 30~~, 2017

From: Gavin He
To: John Kim; Bruno Amara
Cc: Shajee Kathirgamanathan
Subject: RE: Expanding the Ontario Electricity Support Program
Date: Friday, March 24, 2017 5:49:08 PM

Hi John/Bruno,

I have reached out to TPD on the OESP question, but this item hasn't been routed to them yet and they are not sure when this will get to them. They suggest us to reach out to Tax and Benefits Administration (TBA) for more information since this item is sitting with them at the moment.

Please let me know if you want me to reach out to TBA.

Thanks,
Gavin He

From: Patel, Lesley (MOF) [mailto:Lesley.Patel@ontario.ca]
Sent: Friday, March 24, 2017 3:50 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Expanding the Ontario Electricity Support Program

Hi Gavin,

This hasn't reached us yet, best to reach out to TBA for more information.

Cheers,
Lesley

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: March 24, 2017 3:10 PM
To: Patel, Lesley (MOF)
Subject: Expanding the Ontario Electricity Support Program

Hi Lesley,

Hope you are doing well! As part of the Fair Hydro Plan announcement, it says that Ontario is exploring automatic qualification for customers who are enrolled in other provincial low-income social programs under the OESP program. Do you know who we can reach out to the further check on this statement?

Here's the news release that we are referring to:

https://news.ontario.ca/mei/en/2017/03/enhancing-electricity-support-and-conservation-programs.html[news.ontario.ca]

Thanks,

Gavin He
Corporate and Electricity Finance Division
Ontario Financing Authority
416-325-0924 | Gavin.He@ofina.on.ca

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From: Salman Qadir
To: Adam Prokop
Cc: Bruno Amara; John Kim
Subject: RE: FHP - questions on taxation
Date: Thursday, April 20, 2017 9:57:51 AM

Hi Adam,

Nothing to add.

Regards,
Salman

From: Adam Prokop
Sent: Thursday, April 20, 2017 9:50 AM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: FHP - questions on taxation

Questions so far

Three things to know

1. The legislation amendments are to ensure that the profits from the Trust are not taxed or part of the OEB rate-setting process.
2. The Financing Entity (OPG Trust) is intended to be excluded from deemed assets and liabilities (i.e., the rate base)
3. OPG will essentially be acting on behalf of the Financing Entity (no mention of how the Financing Entity will operate, e.g. with an independent board).

Questions

1. Section 53.1(1.) would have the assets and liabilities of the Financing Entity (OPG Trust) excluded from deemed assets for the OEB hearing. The equity injection from the Province (common or preferred) would not form part of the Trust – even if the cash received is given to the Trust, the equity remains on OPG's books until redemption. Will there be some reference to exclusion of these equity injections from the deemed debt/equity ratio?
2. The Financing Entity term has not been defined yet, but will the definition be a) flexible enough to incorporate another FE in case of a replacement event and b) narrow enough to prevent OPG from establishing another FE unrelated to the Fair Hydro Plan in order to avoid payments to OEFC?
    a. Section 53.1(1.2) is amended to state that OPG can create one or more subs/trusts/SPEs to **more efficiently conduct its activities** which could be outside scope of the FHP.
3. The amendment to Section 78.1 (4.1) would exclude all profits from the Financing Entity to OPG from OEB rate decisions – will there be a cap on this amount for reasonableness, or will the OEB ensure that profits earned are reasonable at another checkpoint (since it has been contemplated that an attestation for the financing plan from an officer of the Financial

Service Manager could be used rather than an OEB review)?

   a. It looks like they are going the OEB route (**all fees charged by OPG as the FSM shall be approved by the OEB**) but just want to confirm if this is now the intended direction.

4. Should Section 89 of the Act also explicably state that losses from the FE could not be applied as a reduction to amounts owing to the OEFC?

Anything else Salman?

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Gadi Mayman
To:	Carlos Yep; Ken Kandeepan; John Psinas; John Kim; Adam Prokop; Bruno Amara; "Kaitlin.Montgomery@ontario.ca"
Cc:	Anna Strathy; Mike Manning; Ronald Kwan; Scott Nelms (ENERGY); Karen Hughes (MGS); "Veinot, Cindy (TBS)"
Subject:	RE: Fair Hydro Plan - Provincial Support Agreement - Term Sheet <comments from TD>
Date:	Friday, April 28, 2017 11:26:13 AM

From the conversations that I've been involved with Blakes, Energy, TBS, OPG, etc., one of the challenges that they're trying to overcome is the perception of the banks providing advice to OPG that this is a securitization transaction, which, while it has many similarities, it is not. It seems that TD is also falling into this trap in their analysis, so it would be worthwhile to try to move them off of this perspective for their next round of advice on this, which will have to be in advance of next Tuesday morning when we'll be meeting with the Deputy and the Minister's office in advance of this item going to Fiscal Prep on Wednesday.

I understand where Susan and the TD team are going on this, but TD needs to take the Province's perspective on this, not come at it from the angle of how to structure this to make the financing as easy as possible. We will not, as many of you are aware from our previous discussions, provide anything except the skinniest possible guarantee that would make this financeable, while still ensuring that the appropriate accounting treatment is possible to be achieved.

Thanks,
Gadi

From: Carlos Yep
Sent: Friday, April 28, 2017 11:12 AM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>
Cc: Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Fair Hydro Plan - Provincial Support Agreement - Term Sheet <comments from TD>

Fyi

From: Thompson, Susan [mailto:Susan.Thompson@tdsecurities.com]
Sent: Friday, April 28, 2017 10:40 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>

Cc: Thom, Trevor <Trevor.Thom@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>
Subject: Fair Hydro Plan - Provincial Support Agreement - Term Sheet

Mike, Jim, Carlos

Please see below for our comments on the draft term sheet for the Provincial Support Agreement. Let us know when you would like to discuss further. Also, please note that we have not sent the comments or the term sheet to Steve Ashbourne at Blakes. Please let us know if you would like us to do so.

Attached is a sample servicing guarantee for a general securitization transaction to provide examples of common features. Note that the sample guarantee is formatted for a corporate transaction and would have to be adjusted accordingly. Also attached is a brief description of the servicing obligations typically covered by a servicing guarantee.

In reviewing the term sheet, we believe that the Servicing Guarantee is narrow in scope.

- Not a conventional servicing guarantee for securitization transactions
- It may not be acceptable for the rating agencies, particularly if monthly remittances of collections from the LCDs are necessary.

As drafted, it solely allows for the appointment of a replacement servicer by the Guarantor upon the occurrence of a Servicer Default (due to breach of servicing performance).

- It does not cover any losses arising from a breach of the electricity vendors' servicing obligations (typical servicing obligations described in attachment)
- It would preclude the monthly remittance of collections by the LDS to IESO for deposit into the Trust's collection account.

Other Items of Consideration:

- Not typical for the Indenture Trustee to be obligated to provide any reporting to the Guarantor
- Confidentiality would be difficult to maintain for a public issuance. The guarantee is a material component of the transaction and will have to be disclosed in detail in the IM, and possibly posted as a material contract
- Consistent with other "AAA" transactions, performance under the guarantee is expected to occur promptly, typically within 2 business days for payment obligations
- Guarantee does not cover a market disruption and the inability to refinance existing due and maturing issuances (including ABCP)

Susan Thompson, MBA | Director | Government Finance | **TD Securities**
222 Bay Street, 7th Floor, Toronto, Ontario, M5K 1A2
T: 416 982 6587 | C: 416 436 2533 | Susan.Thompson@tdsecurities.com

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From: Bruno Amara
To: John Kim
Subject: RE: Fair Hydro Plan -- Equity Injection/OPG Share Purchase
Date: Tuesday, March 14, 2017 2:49:59 PM

Yep, good idea

-----Original Message-----
From: John Kim
Sent: Tuesday, March 14, 2017 2:47 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Fyi, I might pull in Adam so I have another pair of ears listening in.

-----Original Message-----
From: John Kim
Sent: Tuesday, March 14, 2017 2:47 PM
To: 'GRECO Clara -LAWDIV' <clara.greco@opg.com>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: YAO Anthea -FUNDMGMT <anthea.yao@opg.com>
Subject: RE: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Hi Clara,

Sounds good to me.

Thanks,

John.

-----Original Message-----
From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Tuesday, March 14, 2017 11:50 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: YAO Anthea -FUNDMGMT <anthea.yao@opg.com>
Subject: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Hello everyone
I'm hoping to have a quick kick off call this week amongst ourselves to discuss developing the work plan for this portion of the plan. OPG will need some input from the Province in order to structure the equity injection process on our side.
I will send a meeting invite for later this week with a brief agenda of some of the items we will need to consider.
Hope to talk to you all then.

Regards,
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416 clara.greco@opg.com

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: RE: Fair Hydro Plan -- Equity Injection/OPG Share Purchase
Date: Tuesday, March 14, 2017 3:32:38 PM

Hey - could you give me a call on this if/when you have a couple minutes?

647.823.3428

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 14, 2017 2:47 PM
To: 'GRECO Clara -LAWDIV'; Montgomery, Kaitlin (MOF); Yep, Carlos (OFA)
Cc: YAO Anthea -FUNDMGMT
Subject: RE: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Hi Clara,

Sounds good to me.

Thanks,

John.

-----Original Message-----
From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Tuesday, March 14, 2017 11:50 AM
To: John Kim <John.Kim@ofina.on.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: YAO Anthea -FUNDMGMT <anthea.yao@opg.com>
Subject: Fair Hydro Plan -- Equity Injection/OPG Share Purchase

Hello everyone
I'm hoping to have a quick kick off call this week amongst ourselves to discuss developing the work plan for this portion of the plan. OPG will need some input from the Province in order to structure the equity injection process on our side.
I will send a meeting invite for later this week with a brief agenda of some of the items we will need to consider.
Hope to talk to you all then.

Regards,
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416 clara.greco@opg.com

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From: Bruno Amara
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan
Date: Thursday, April 06, 2017 7:26:08 PM

Ron

The table sent previously I believe has more up-to-date figures than the placemat provided by Scott. The RRRP numbers were revised in the March 1 cab-sub. And as just noted $100m was approved for Affordability Fund.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:22 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Ron:

Emily is reminding me that Affordability Fund was eventually approved for $100m rather than $200m. In the attached I have revised and added a footnote.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis

Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: Bruno Amara
To: John Kim
Cc: Emily Kerr; Gavin He; Ronald Kwan
Subject: RE: Fair Hydro Plan
Date: Thursday, April 06, 2017 6:25:10 PM

John

I'll look for it and send by you to check.

Bruno

From: John Kim
Sent: Thursday, April 06, 2017 6:08 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: Fair Hydro Plan

I am in transit but will take a look.

On Apr 6, 2017, at 6:00 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

> Hi,
>
> Can we respond?
>
> Ron
>
> Begin forwarded message:
>
> > **From:** "Nguyen, Marianne (MOF)" <Marianne.Nguyen@ontario.ca>
> > **Date:** April 6, 2017 at 5:57:43 PM EDT
> > **To:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> > **Cc:** "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
> > **Subject: Fair Hydro Plan**
> >
> > Hi team,
> >
> > I'm writing a one pager on the FHP. Is there a handy table somewhere of the fiscal impact, broken down by the different elements? I know that was in one of the decks we used to brief the Minister towards the end of February, but I want to ensure I have the most up to date one.
> >
> > I would really appreciate if you could help me track this down ASAP.
> >
> > Thanks,

Marianne Nguyen
Senior Policy Advisor
Office of the Honourable Charles Sousa
Minister of Finance

Office: 416-325-0007
Mobile: 416-562-4452
Email: marianne.nguyen@ontario.ca

From:	Bruno Amara
To:	Ronald Kwan
Cc:	John Kim; Emily Kerr; Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:22:23 PM
Attachments:	FHP programs3.docx

Ron:

Emily is reminding me that Affordability Fund was eventually approved for $100m rather than $200m. In the attached I have revised and added a footnote.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund3		100	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**100**	**665**	**753**	**829**	**892**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet
3. TB/MBC note March 3 requests approval for $100m for Affordability Fund rather than $200m per march 1 cabinet submission

From:	Emily Kerr
To:	Bruno Amara; John Kim
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:18:13 PM
Attachments:	2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf

Yes, from slide 49 of the attached.

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:17 PM
To: Emily Kerr <Emily.Kerr@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Your mark-up appears to make the older RRP numbers consistent with the March 1 submission.

Bruno

From: Emily Kerr
Sent: Thursday, April 06, 2017 7:14 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Also, in the attached markup I had edited the RRRP numbers. I would need to look back to see the source of the edits.

From: John Kim
Sent: Thursday, April 06, 2017 6:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi Bruno,

I think this is the right one….could Emily take a look in the next few minutes? I just want to have another look to see if latest.

Thanks,

John

From: Bruno Amara
Sent: April-06-17 6:32 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>

Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi

Take a look. This is from a late February TB note.

Bruno

From: John Kim
Sent: Thursday, April 06, 2017 6:08 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: Fair Hydro Plan

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> Hi,
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> > **To:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> > **Cc:** "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
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> > _____

Marianne Nguyen
Senior Policy Advisor
Office of the Honourable Charles Sousa
Minister of Finance

Office: 416-325-0007
Mobile: 416-562-4452
Email: marianne.nguyen@ontario.ca

Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

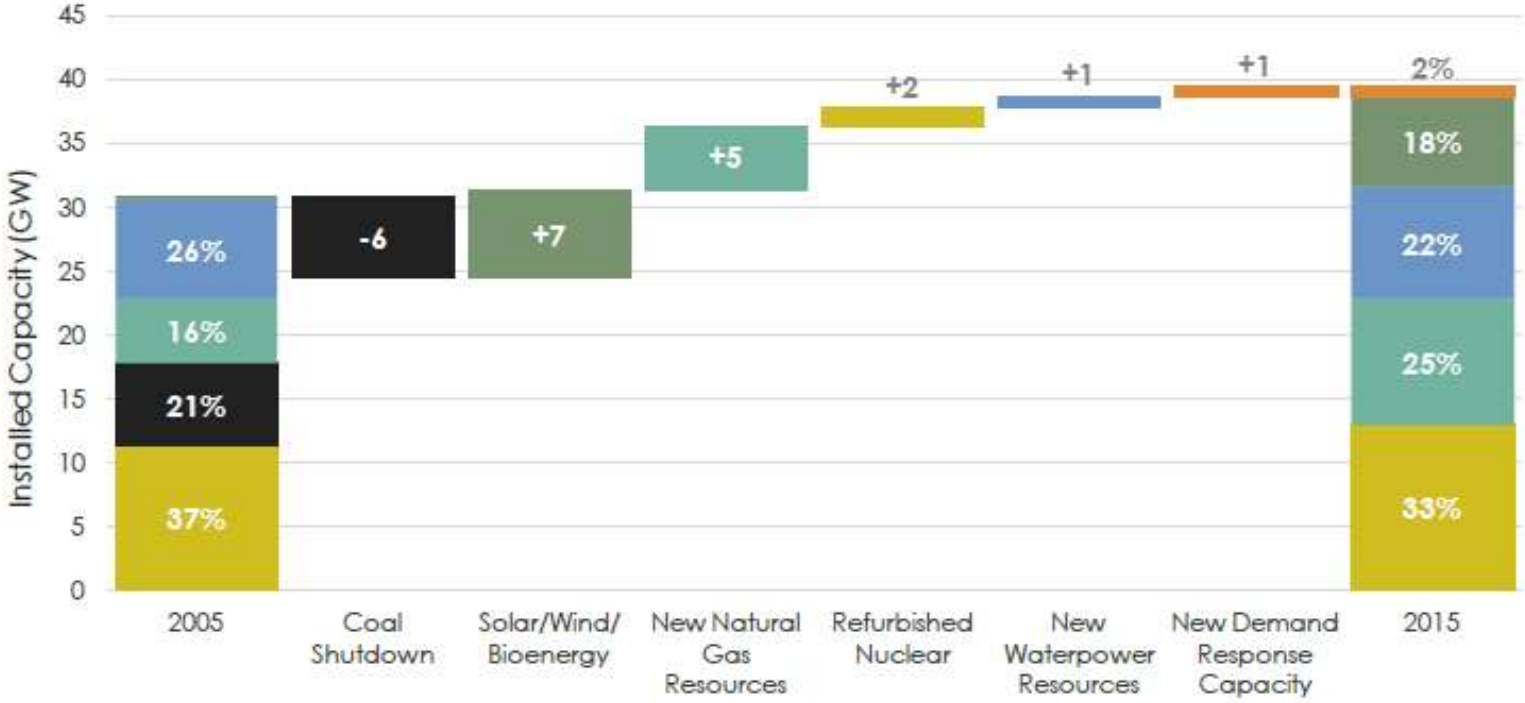
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



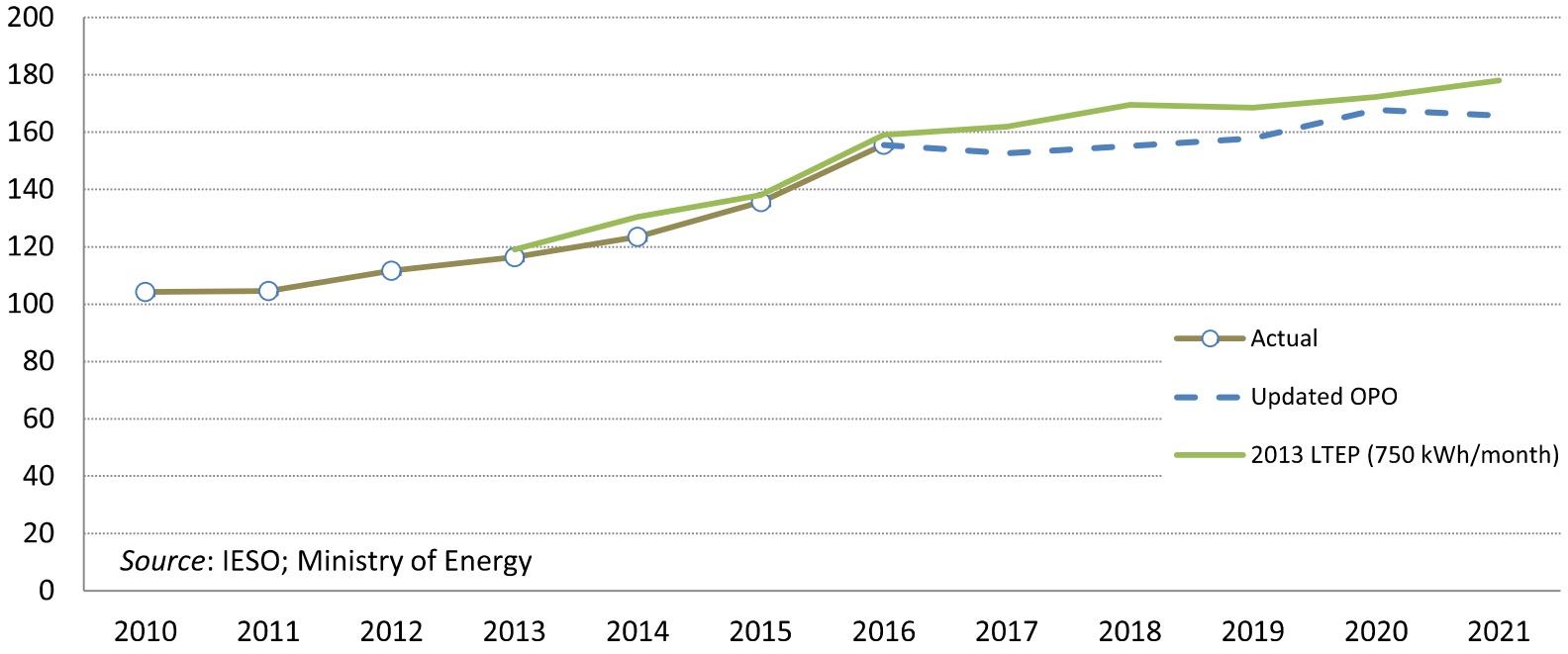
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

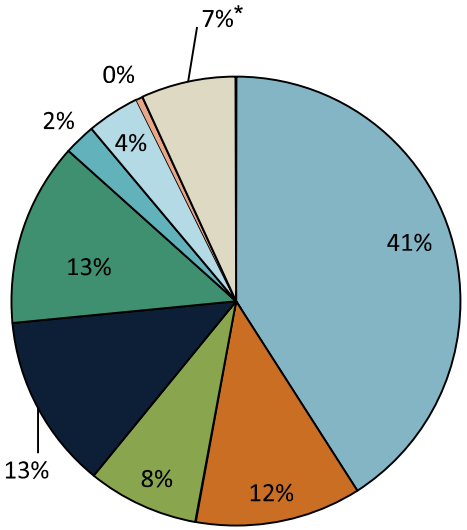
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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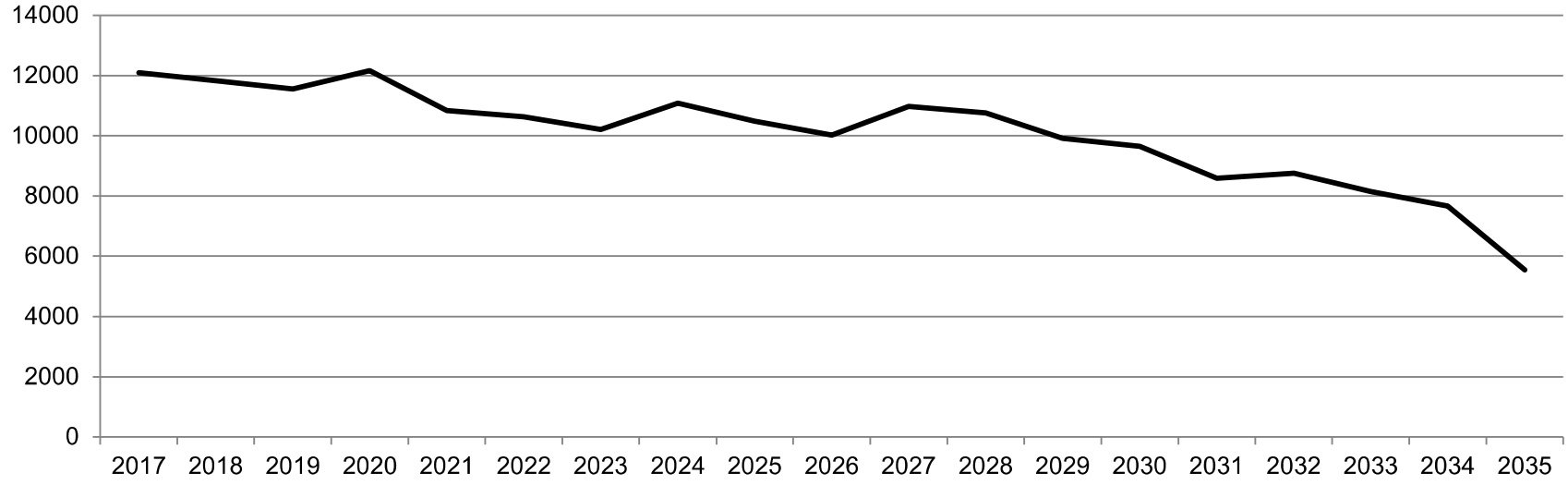
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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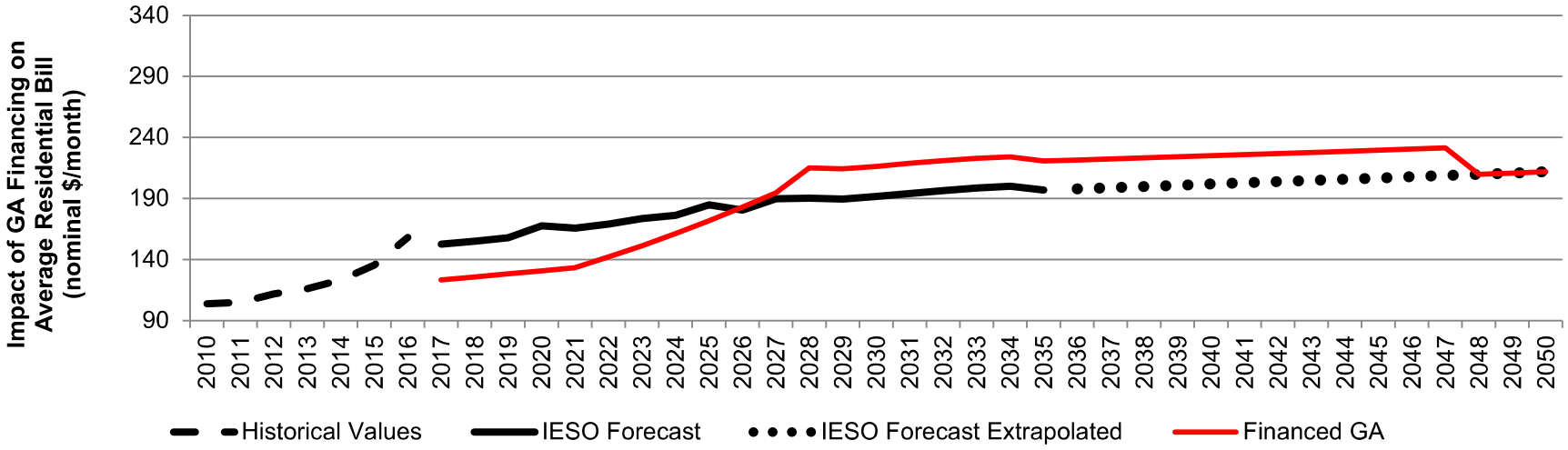
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

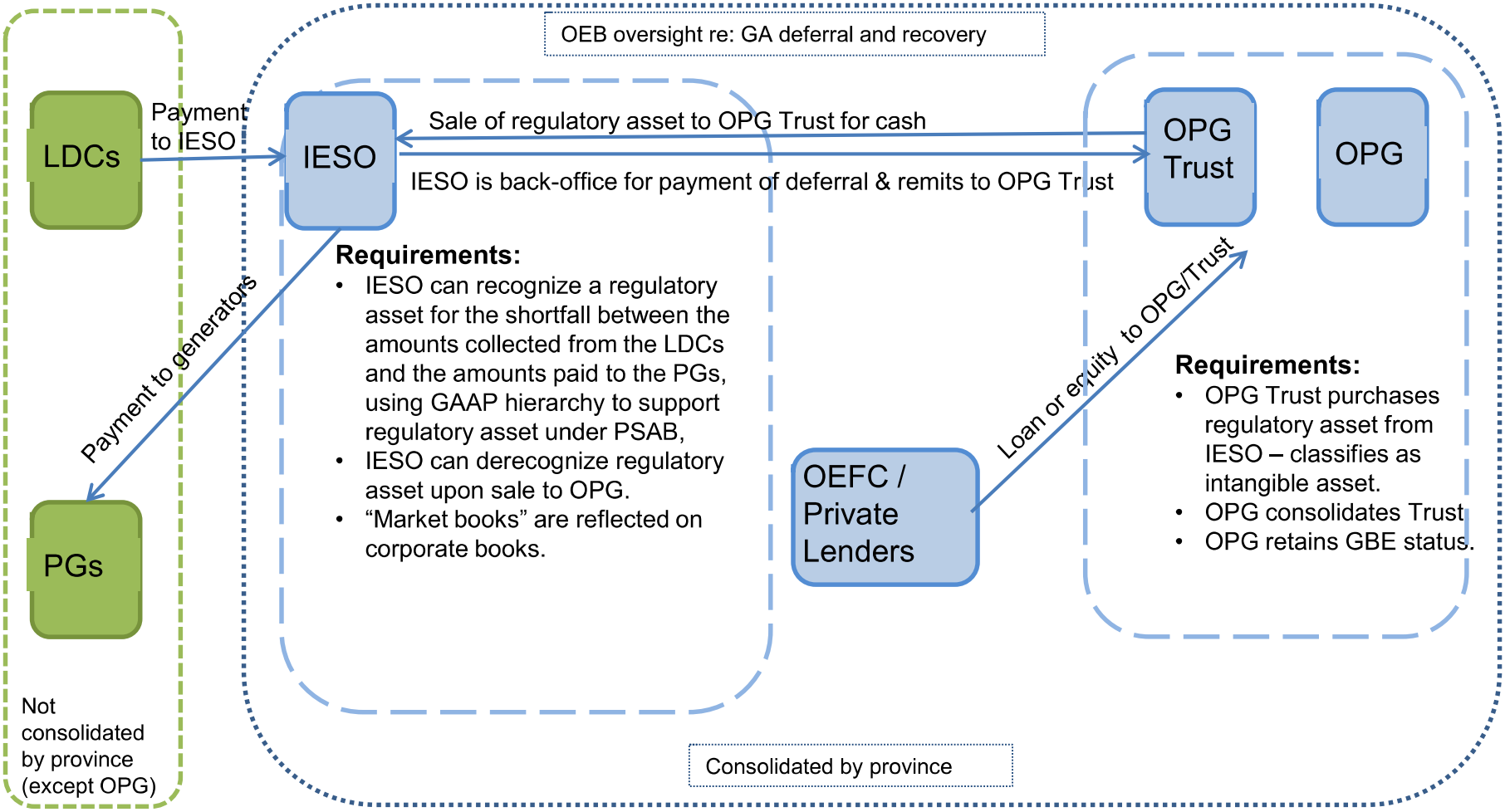
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

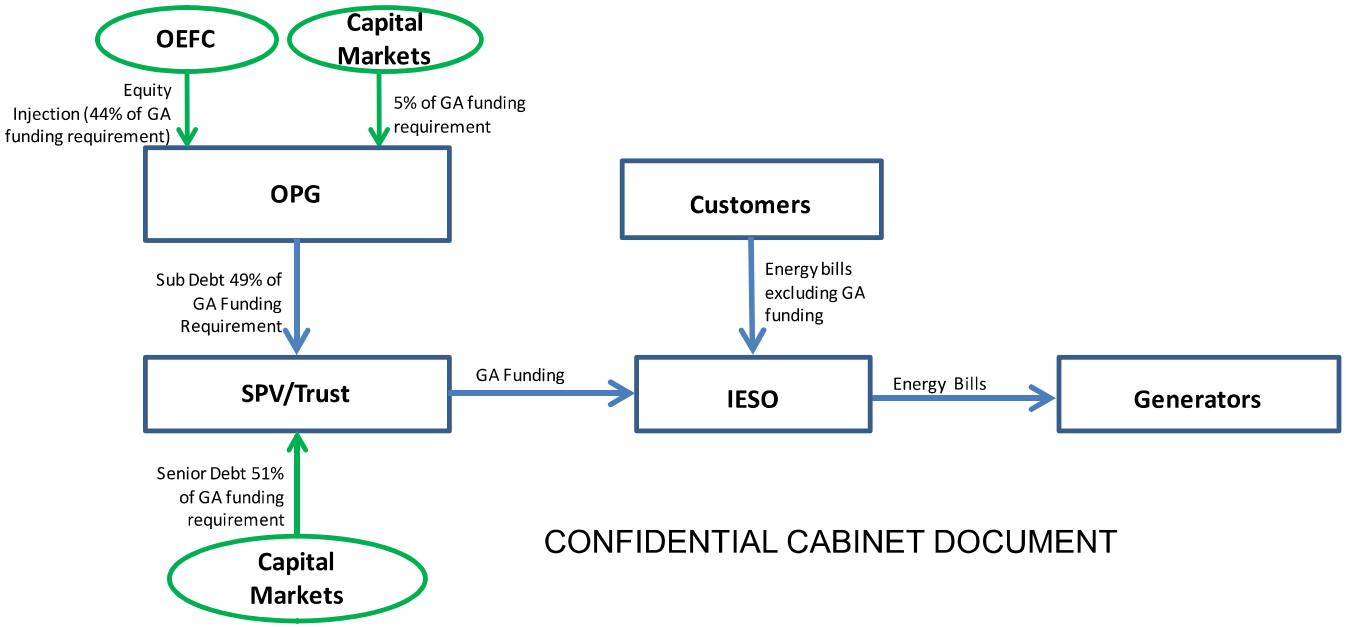
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

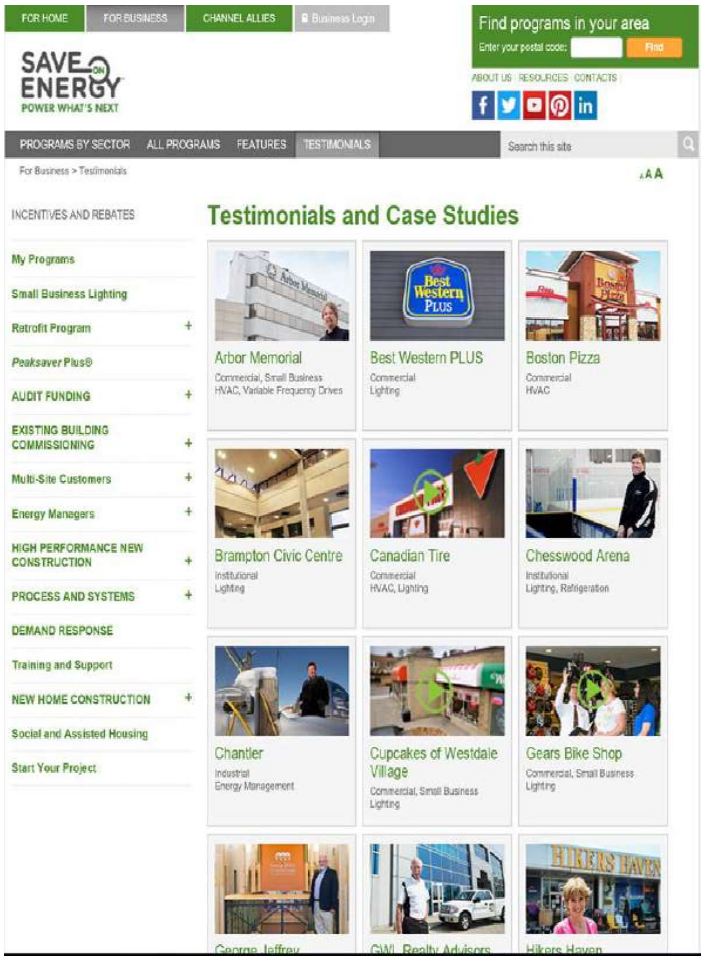
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



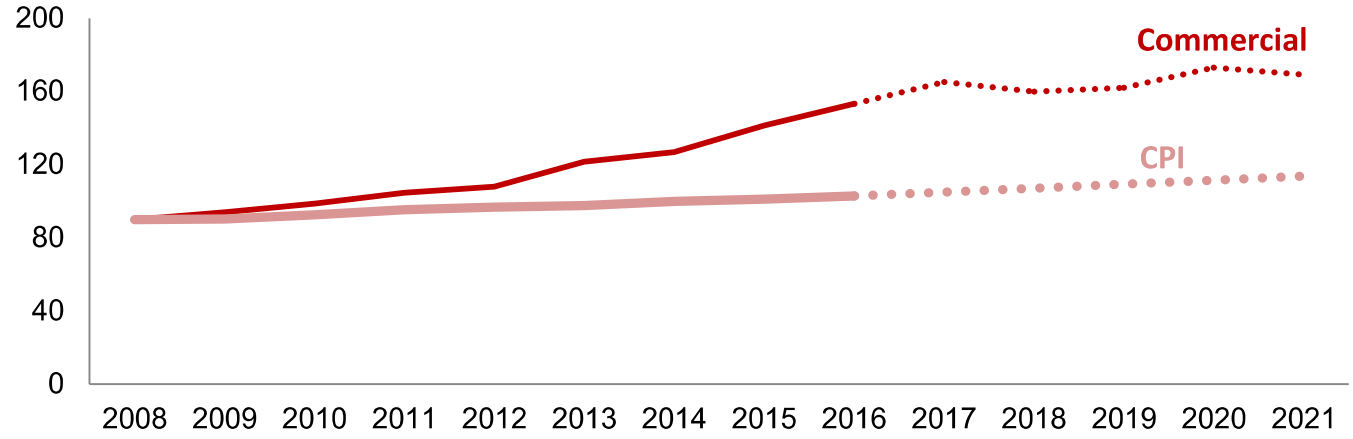
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

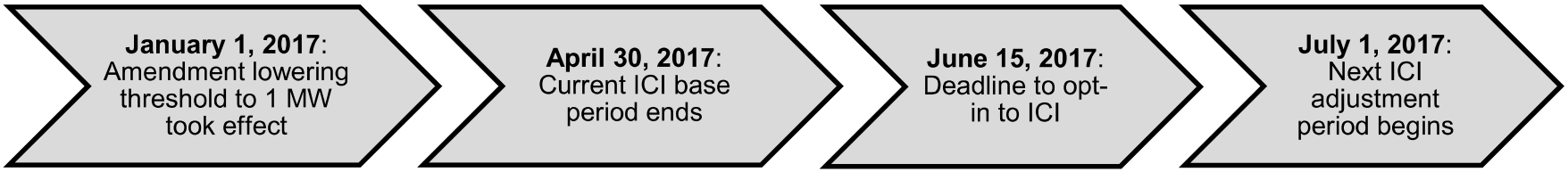
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

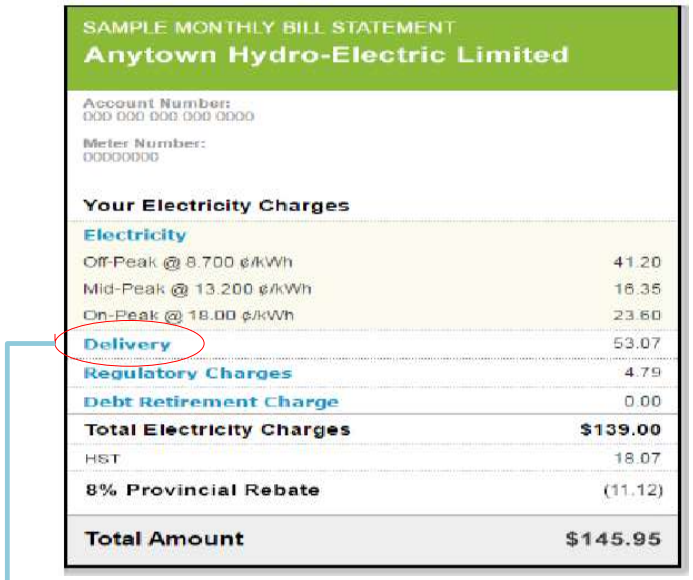
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

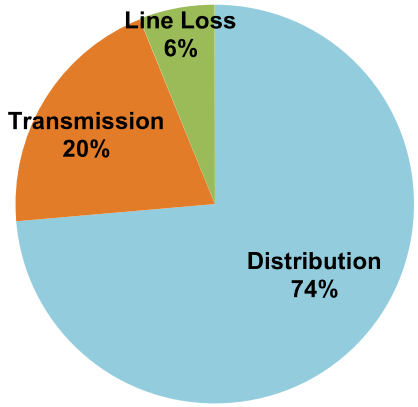
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

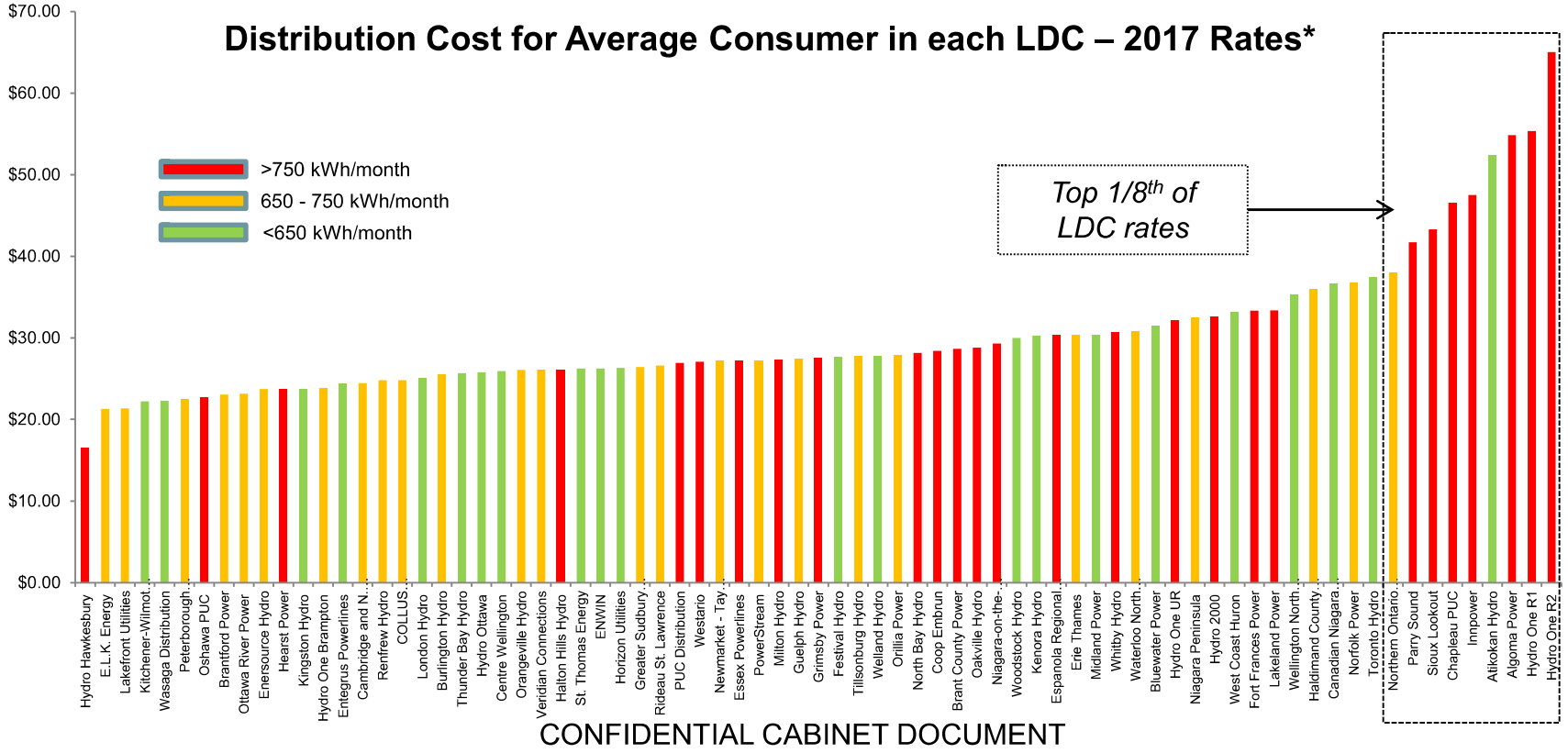
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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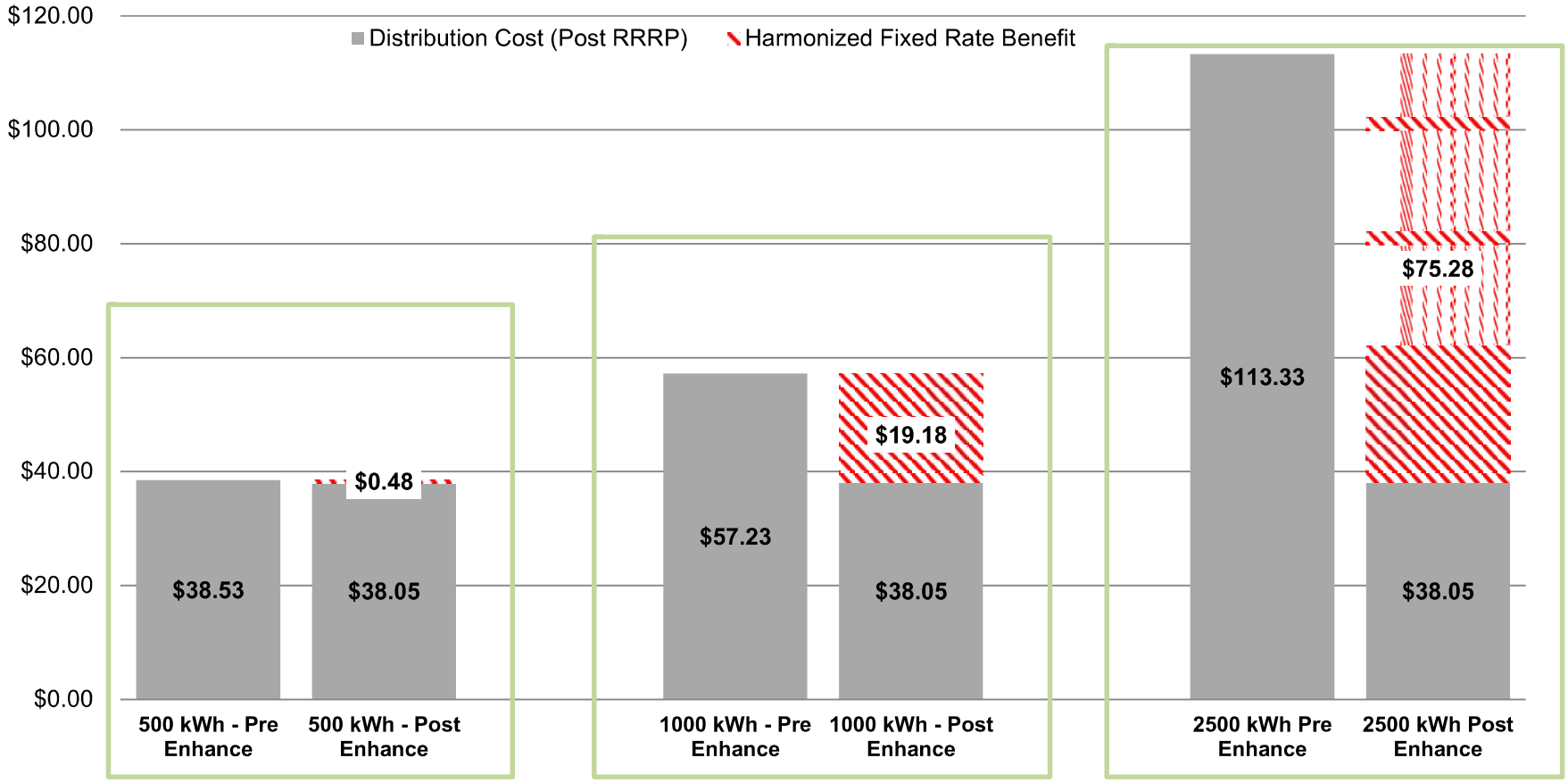
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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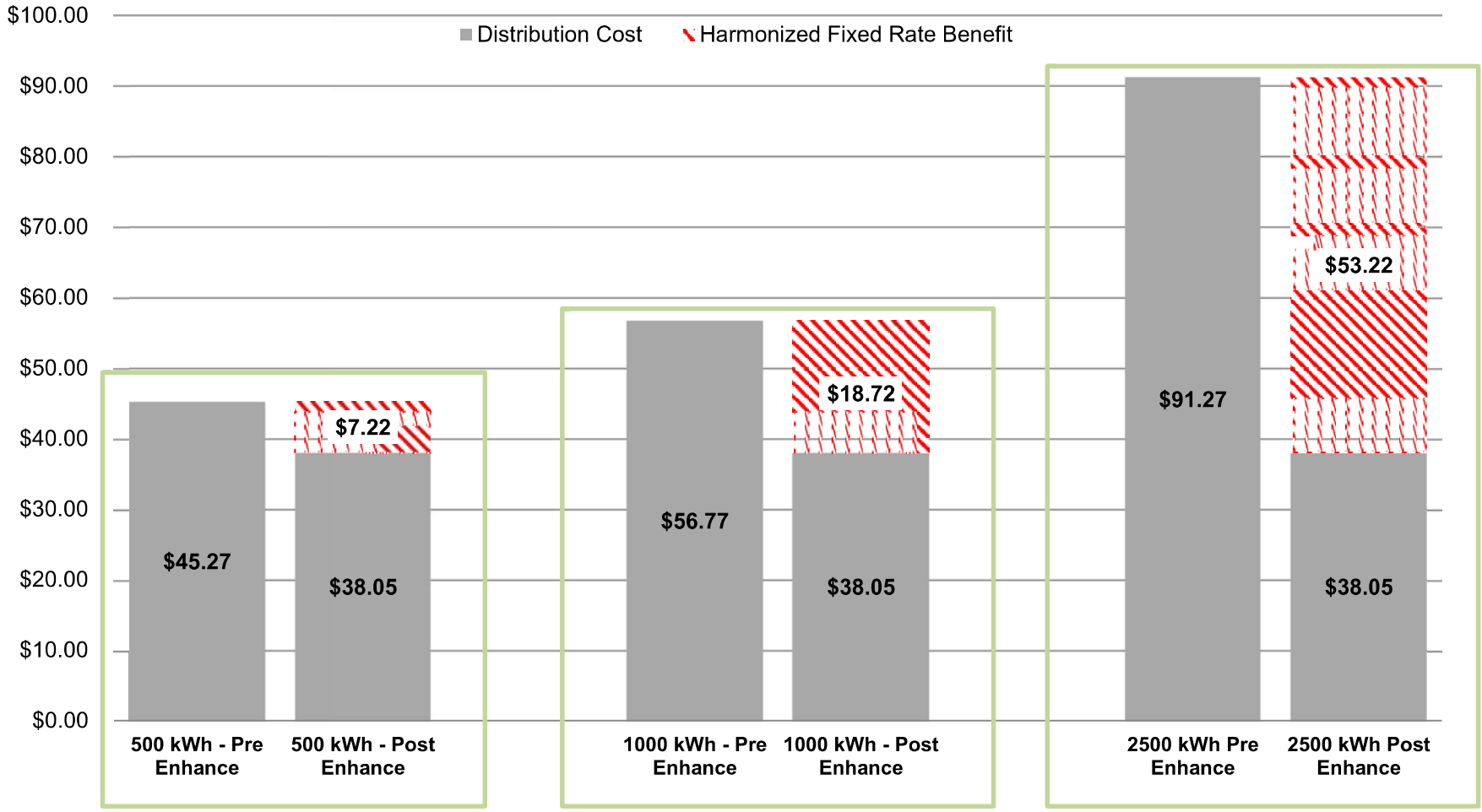
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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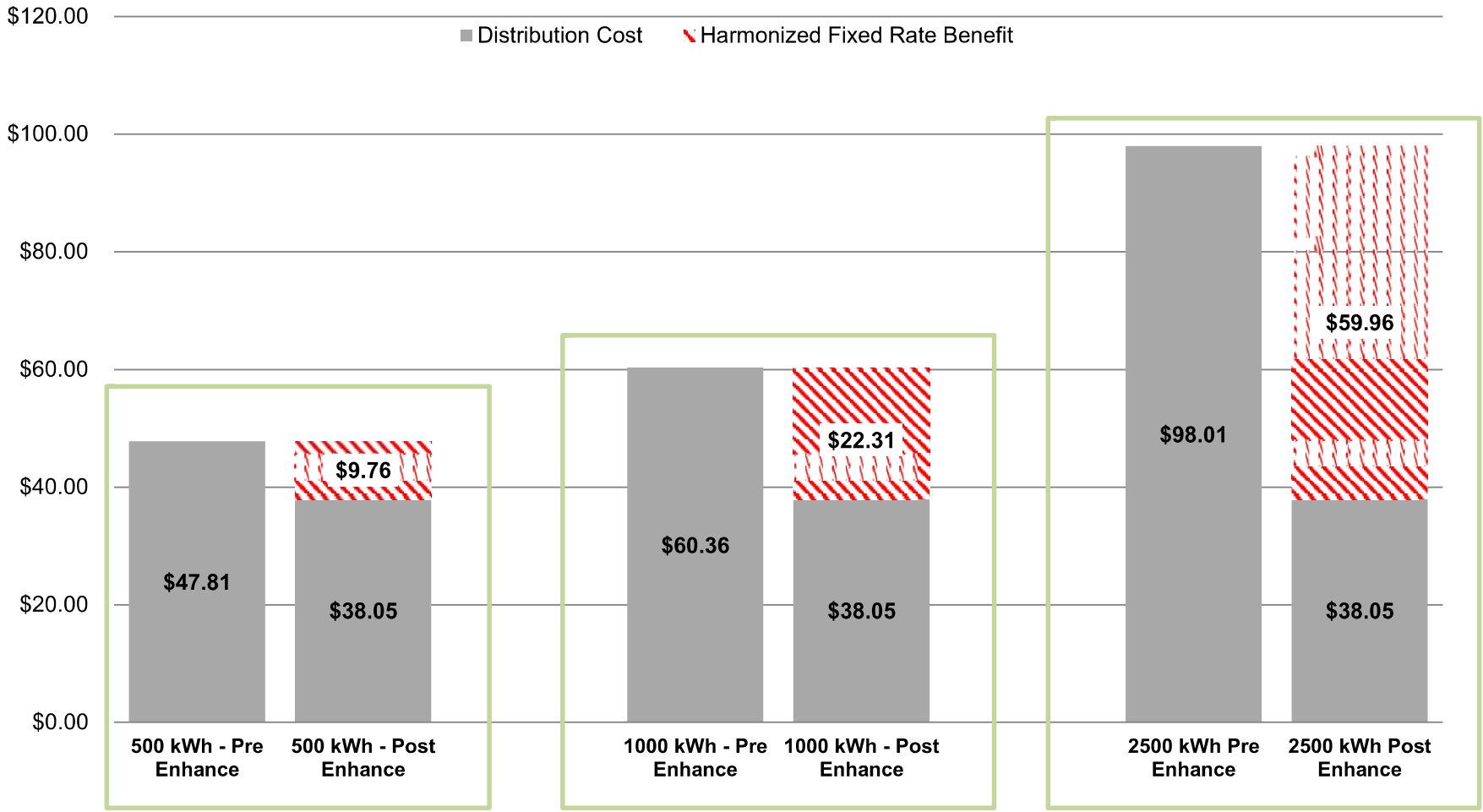
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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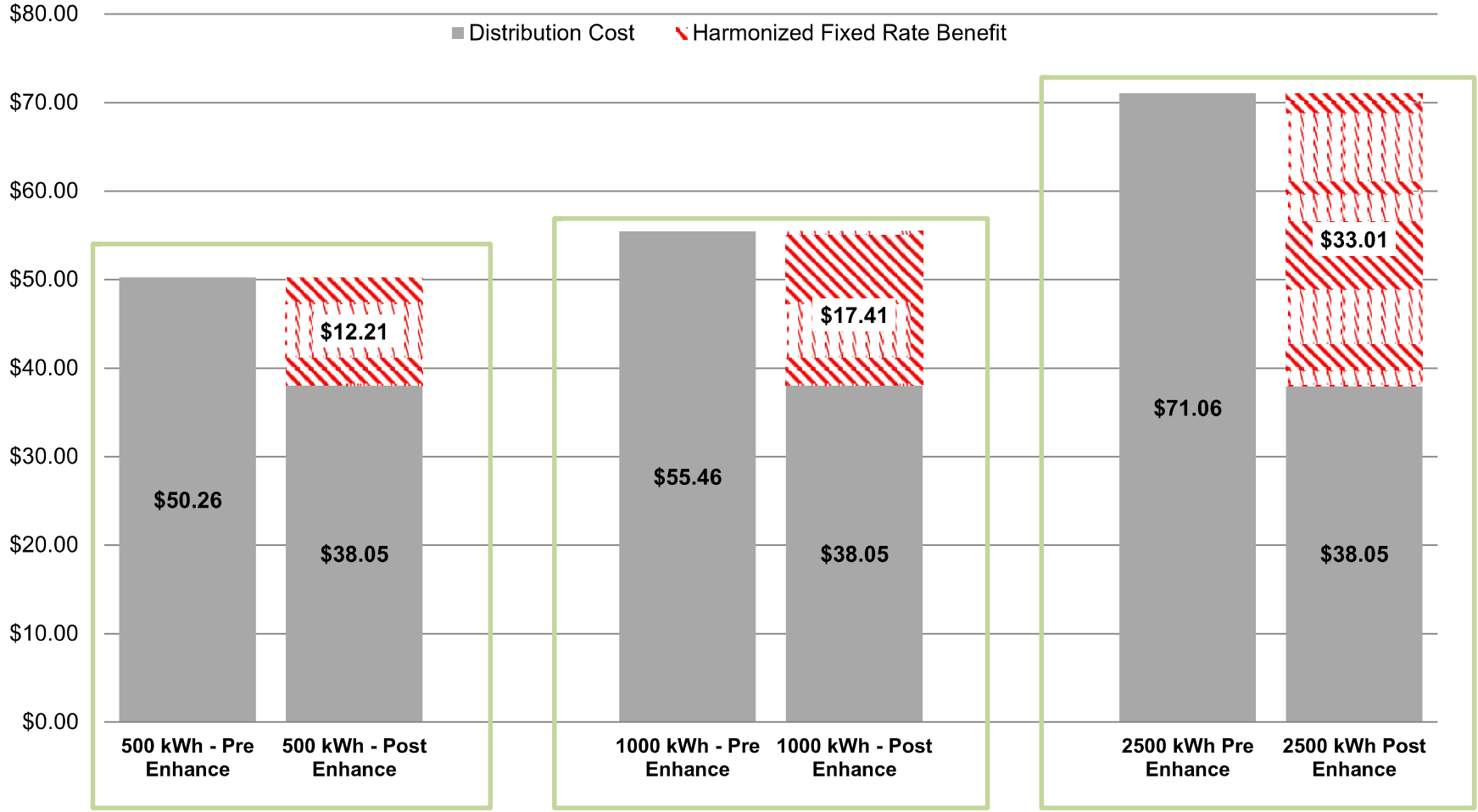
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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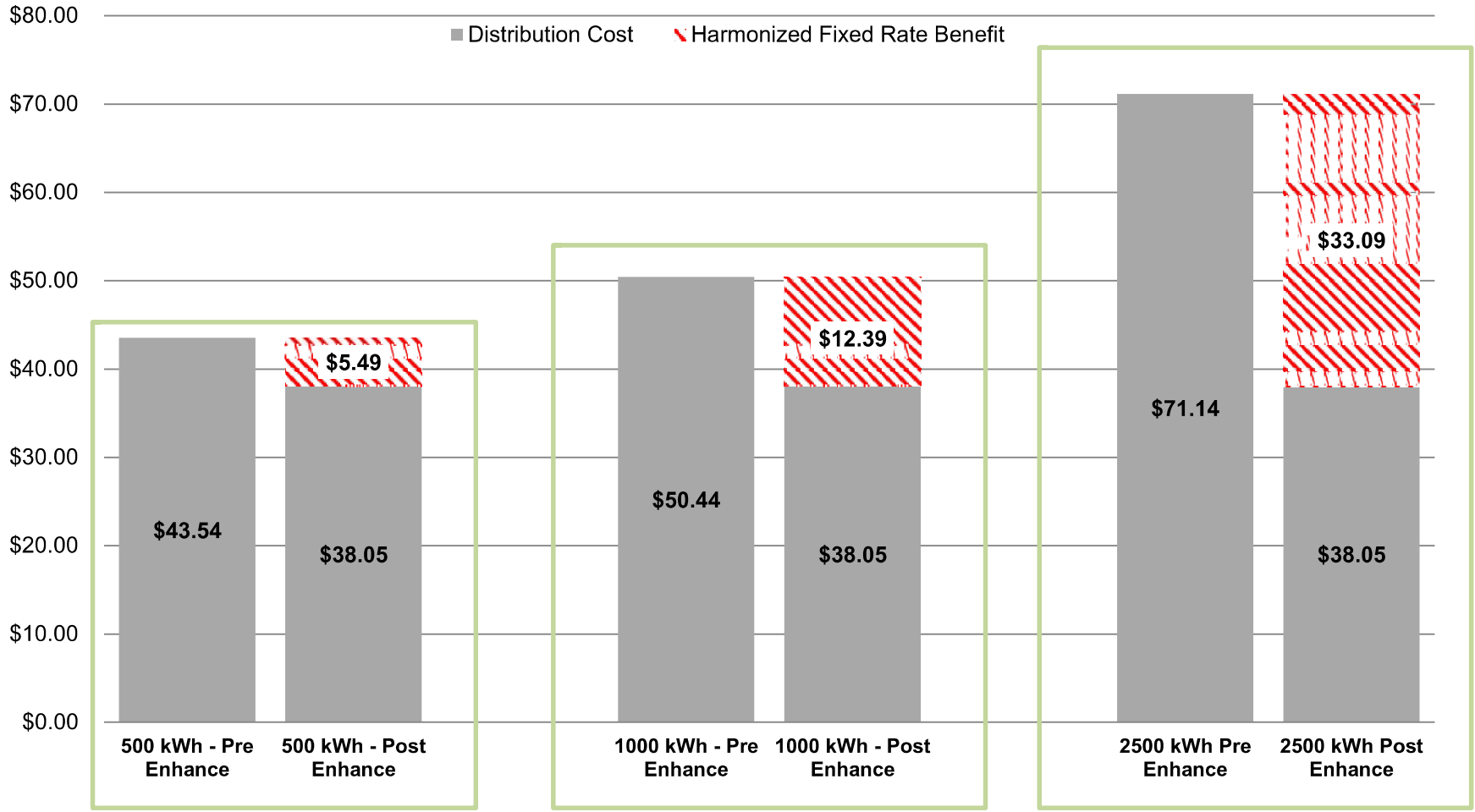
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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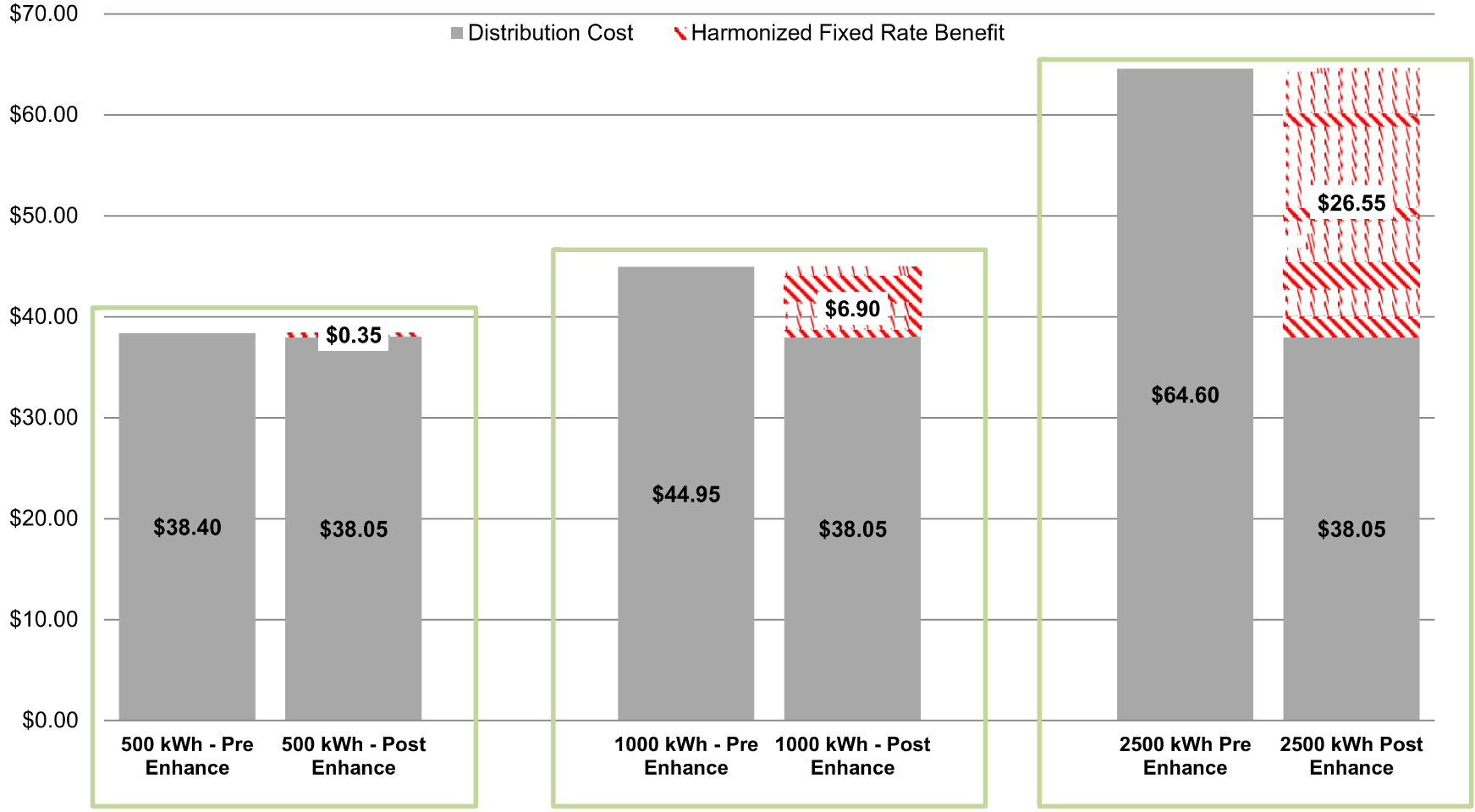
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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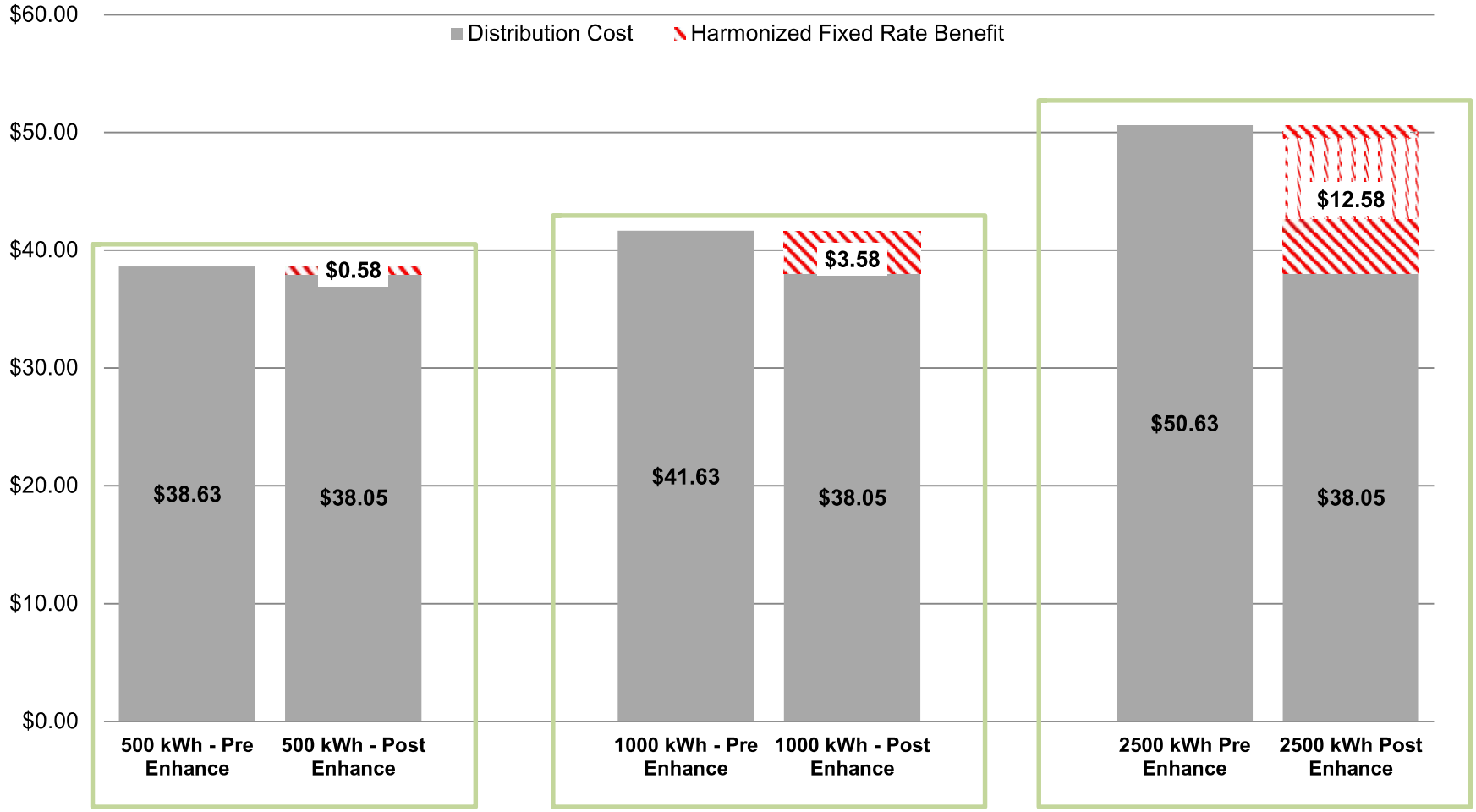
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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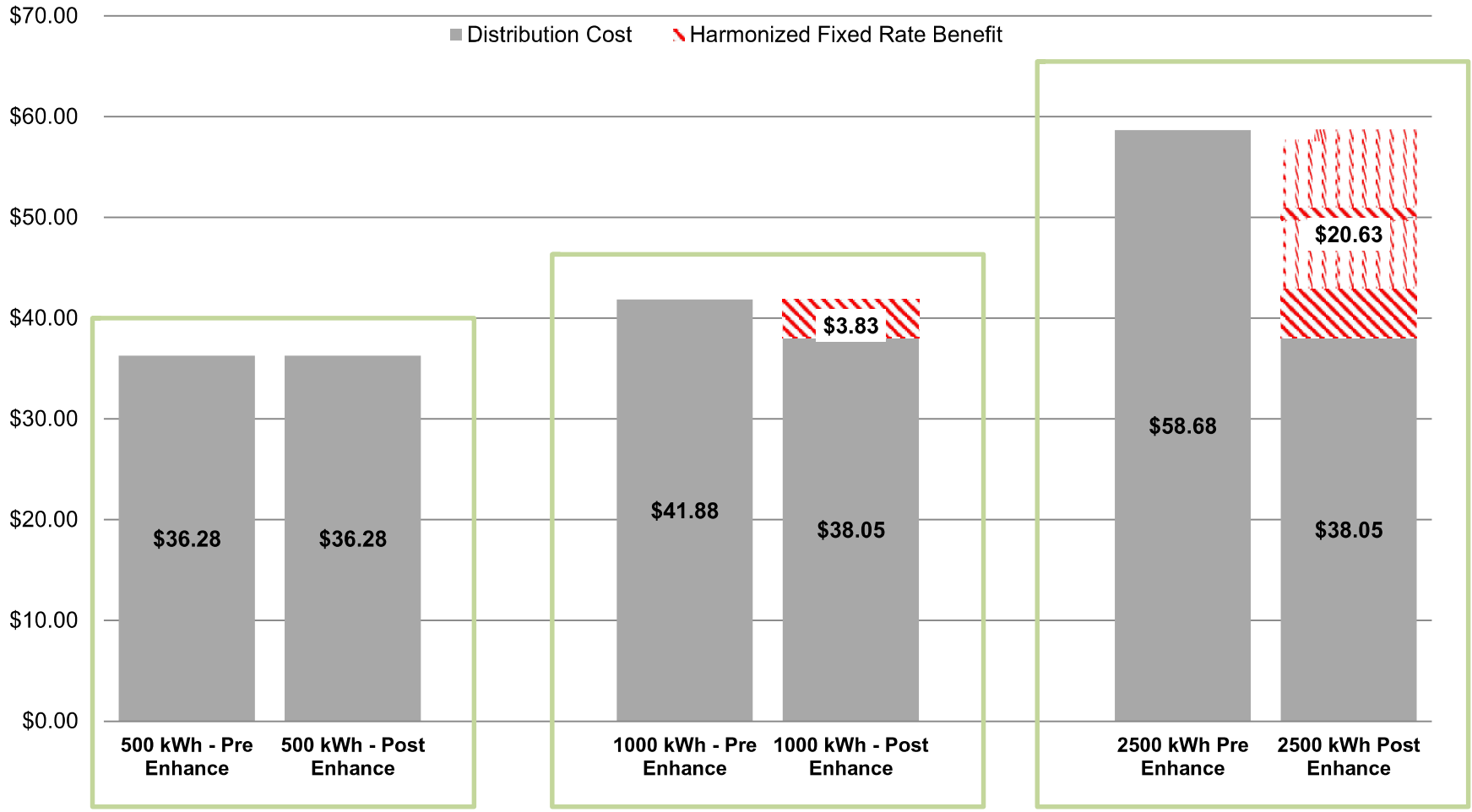
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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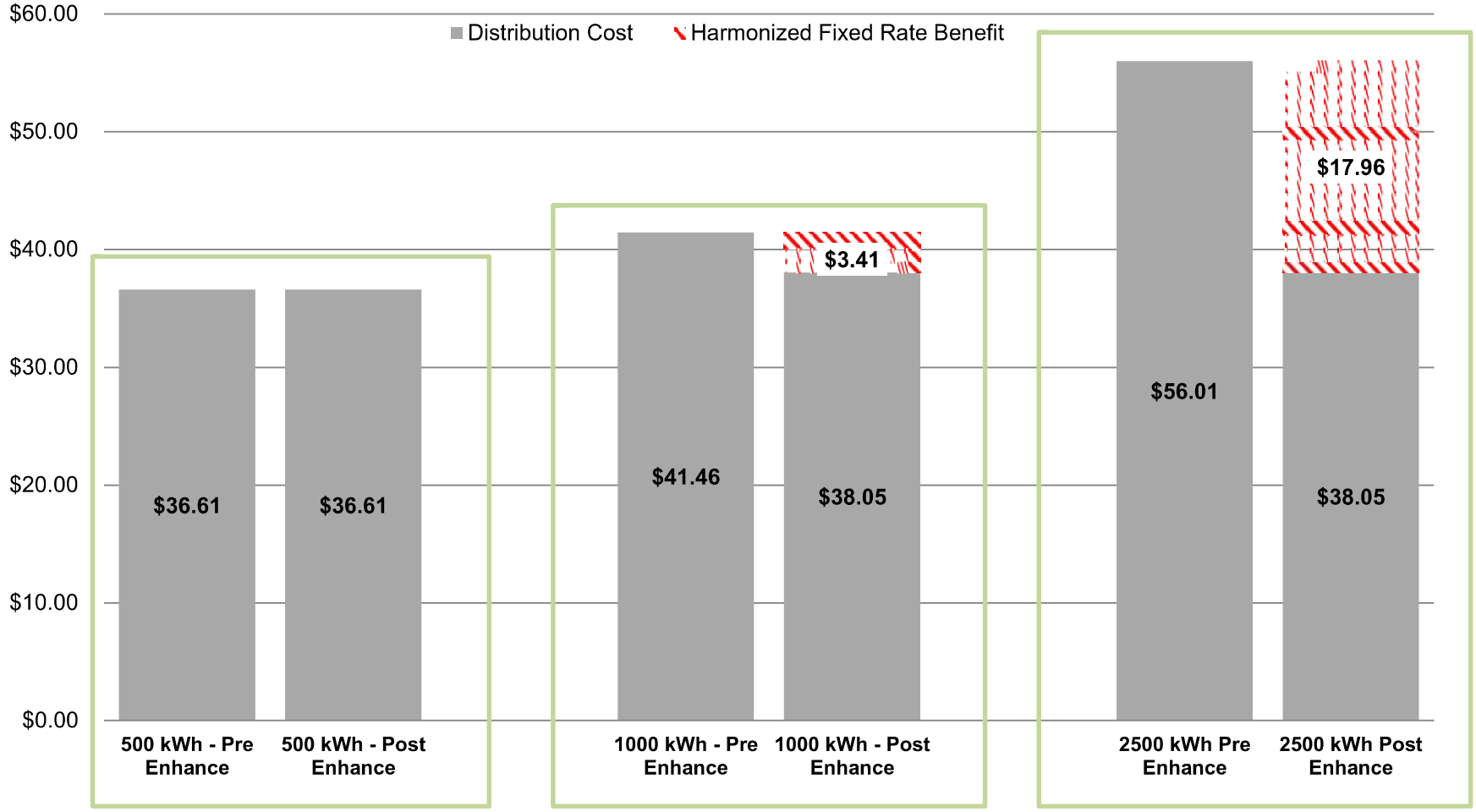
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

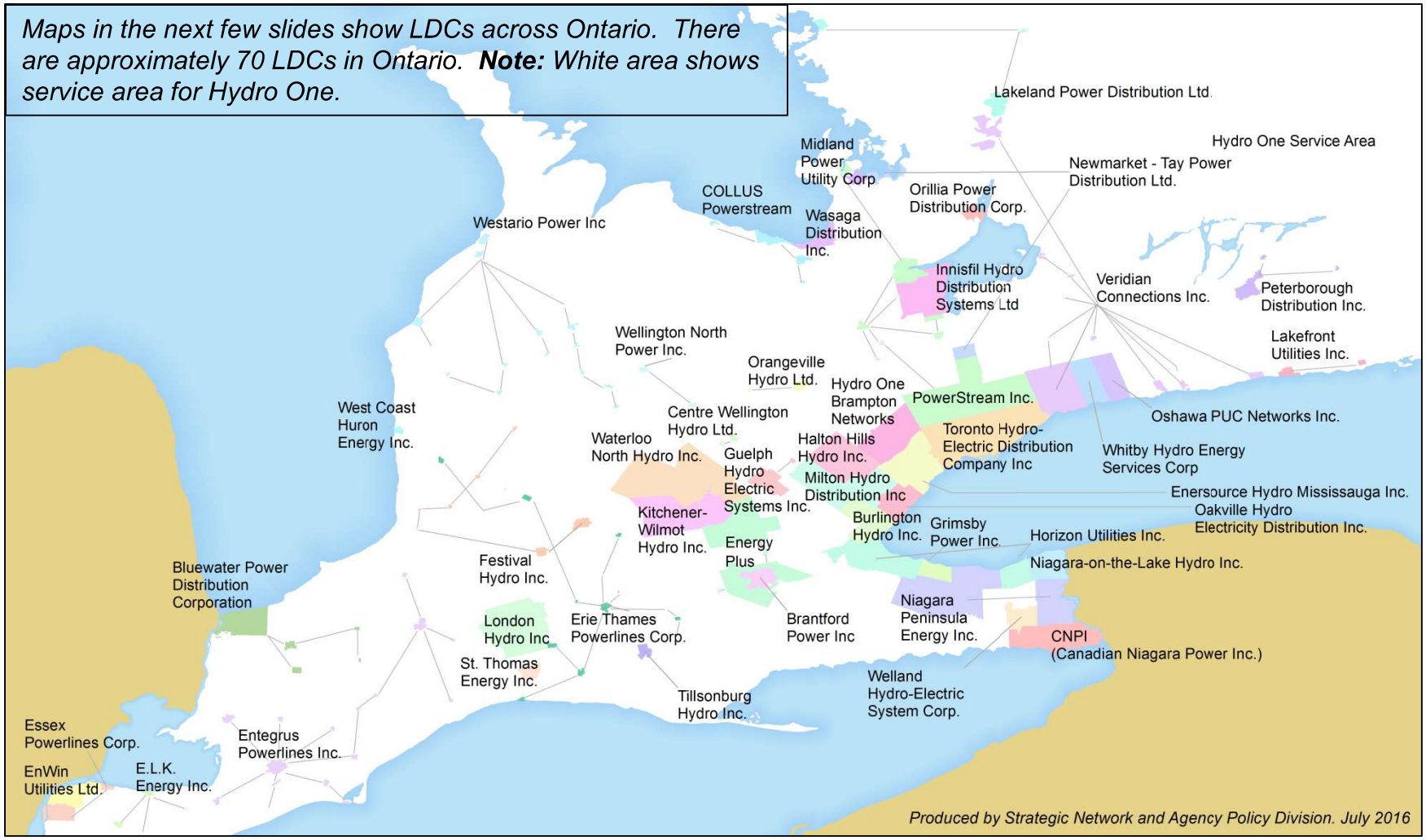
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

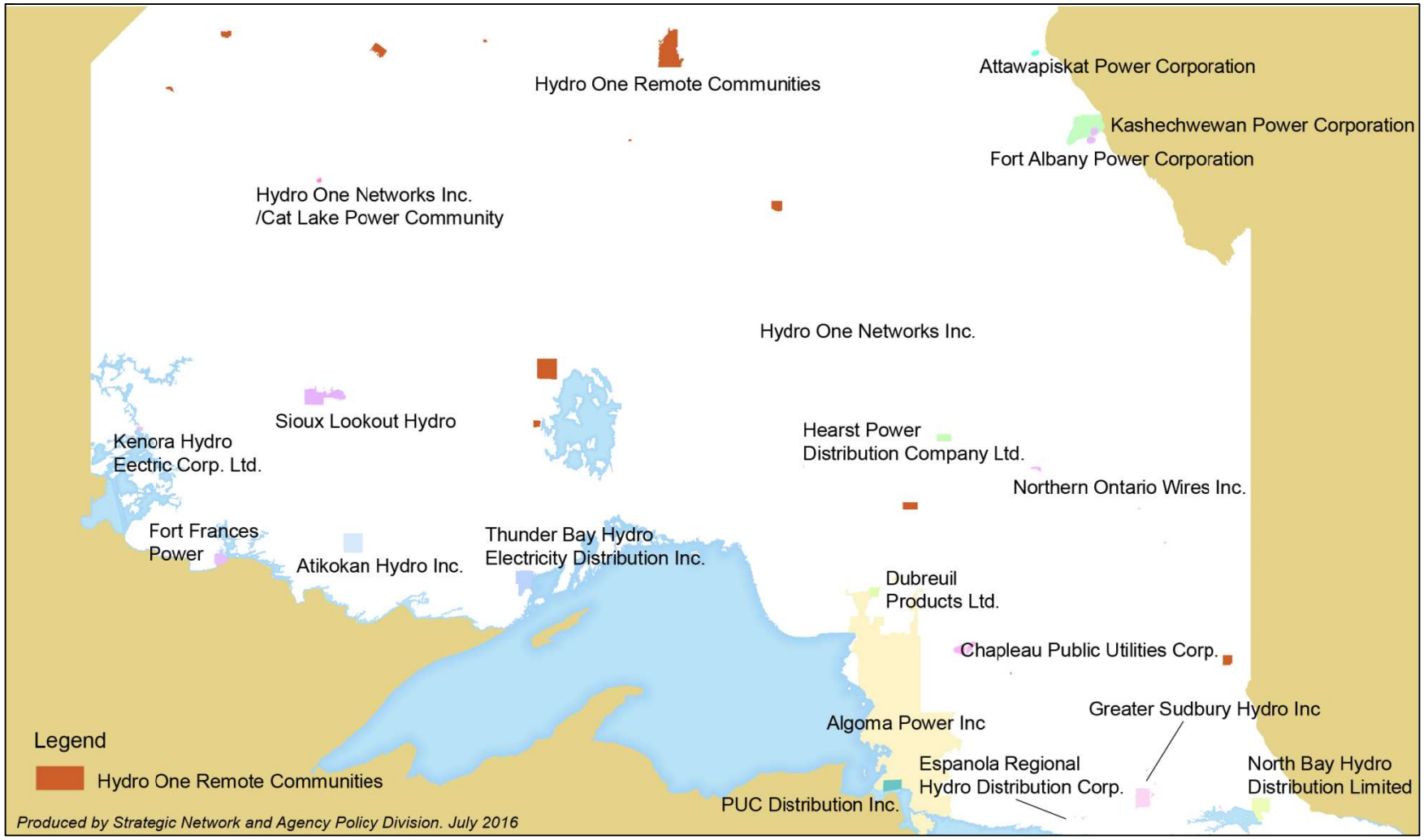
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

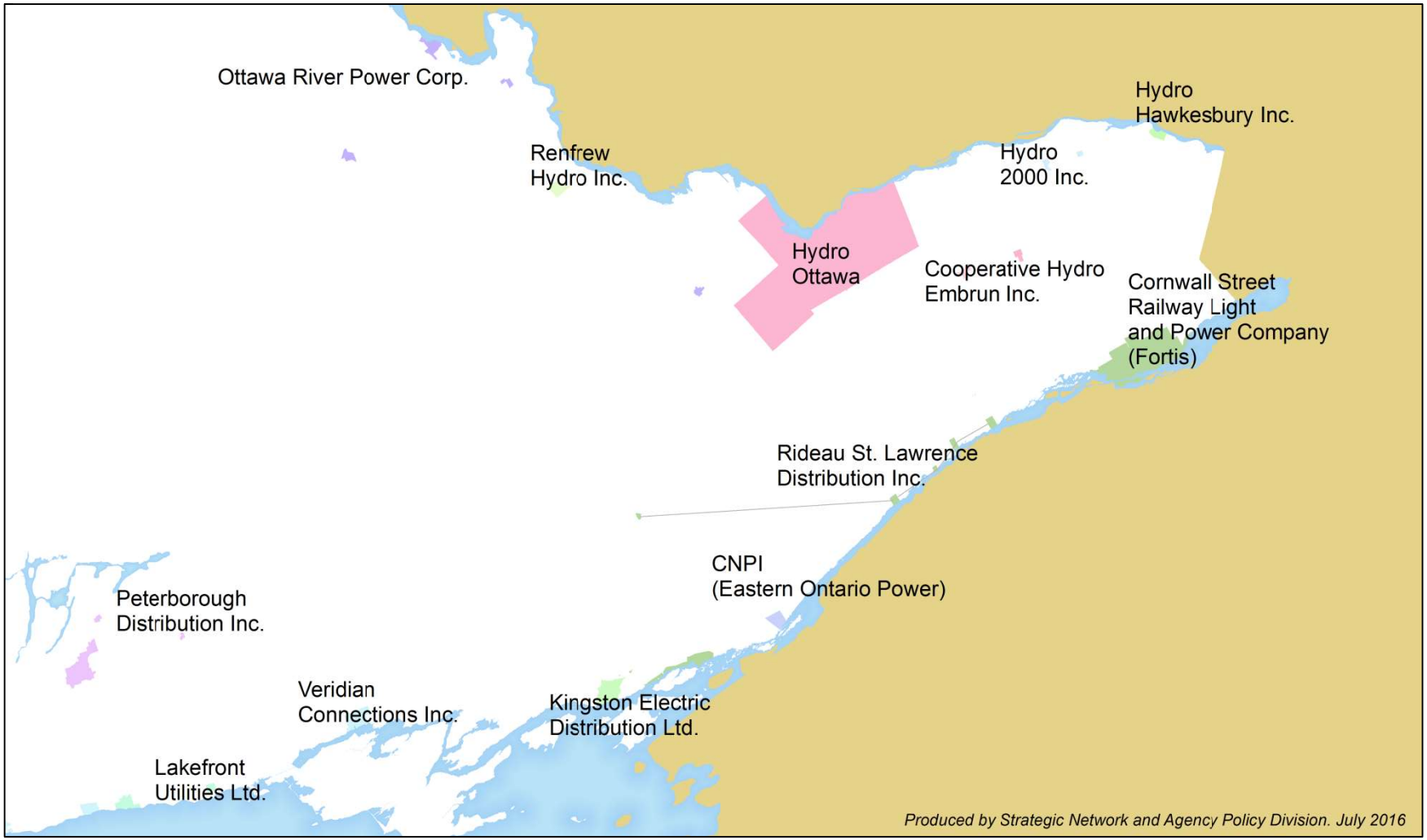
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

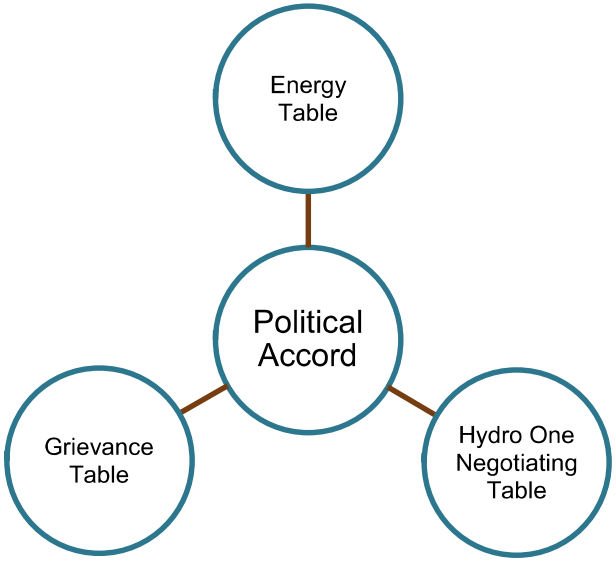
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

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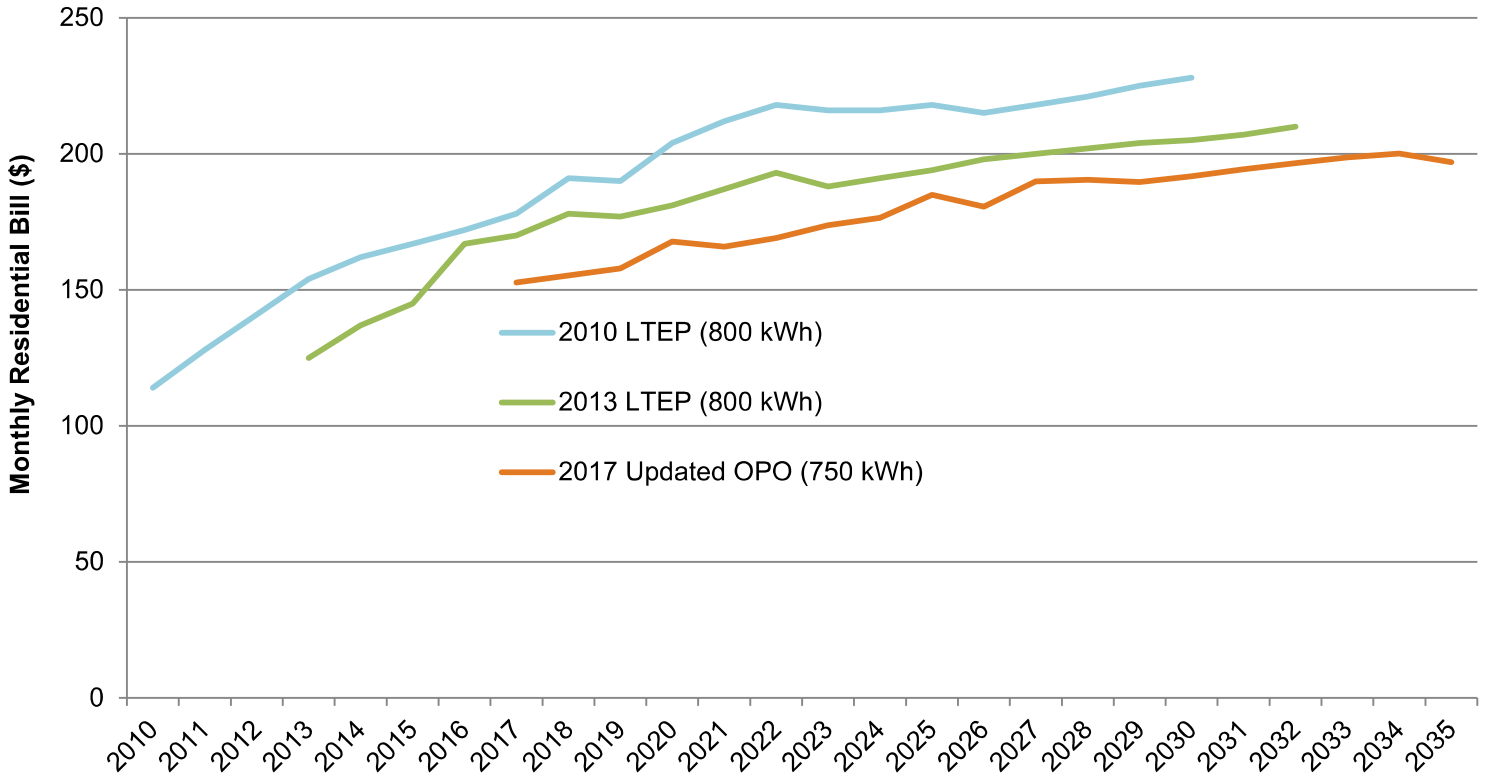
Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

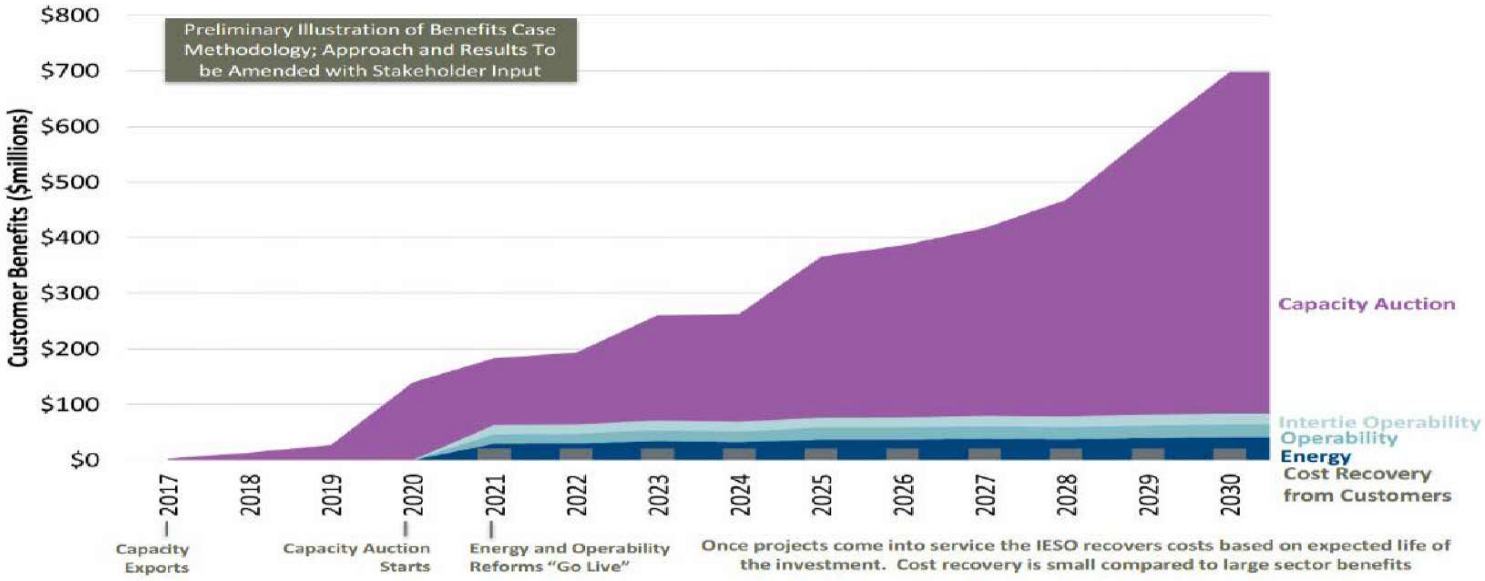
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

From:	Bruno Amara
To:	Emily Kerr; John Kim
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:17:08 PM

Your mark-up appears to make the older RRP numbers consistent with the March 1 submission.

Bruno

From: Emily Kerr
Sent: Thursday, April 06, 2017 7:14 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Also, in the attached markup I had edited the RRRP numbers. I would need to look back to see the source of the edits.

From: John Kim
Sent: Thursday, April 06, 2017 6:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi Bruno,

I think this is the right one….could Emily take a look in the next few minutes? I just want to have another look to see if latest.

Thanks,

John

From: Bruno Amara
Sent: April-06-17 6:32 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi

Take a look. This is from a late February TB note.

Bruno

From: John Kim
Sent: Thursday, April 06, 2017 6:08 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: Fair Hydro Plan

I am in transit but will take a look.

On Apr 6, 2017, at 6:00 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

> Hi,
>
> Can we respond?
>
> Ron
>
> Begin forwarded message:
>
> **From:** "Nguyen, Marianne (MOF)" <Marianne.Nguyen@ontario.ca>
> **Date:** April 6, 2017 at 5:57:43 PM EDT
> **To:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Cc:** "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
> **Subject: Fair Hydro Plan**
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> I would really appreciate if you could help me track this down ASAP.
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> **Marianne Nguyen**
> Senior Policy Advisor
> Office of the Honourable Charles Sousa
> Minister of Finance
>
> Office: 416-325-0007
> Mobile: 416-562-4452
> Email: marianne.nguyen@ontario.ca

From:	Bruno Amara
To:	Emily Kerr; John Kim
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:16:25 PM

Thanks Emily

I'll let Ron know.

From: Emily Kerr
Sent: Thursday, April 06, 2017 7:12 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

One comment I have is that I believe the affordability fund ultimately only received $100 M in funding, as per the attached note.

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> Office of the Honourable Charles Sousa
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> Office: 416-325-0007
> Mobile: 416-562-4452
> Email: marianne.nguyen@ontario.ca

From:	Emily Kerr
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:13:42 PM
Attachments:	RAN Electricity Price Mitigation v8 2017 02 28_SPFB.doc

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From: John Kim
Sent: Thursday, April 06, 2017 6:42 PM
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Senior Policy Advisor
Office of the Honourable Charles Sousa
Minister of Finance

Office: 416-325-0007
Mobile: 416-562-4452
Email: marianne.nguyen@ontario.ca

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 1, 2017
Agenda Class:	Major
Last reviewed by: N/A	**Tracking to:** Cabinet – March 1, 2017

SUBMISSION TITLE: Electricity Price Mitigation

Based on Draft Cabinet Submission

I. DECISION BEFORE THE BOARD

The Ministry of Energy is requesting approval of a suite of initiatives providing relief to various electricity consumer classes.

II. RECOMMENDATIONS:

• Approve a suite of initiatives to provide relief to various electricity consumer classes (pending Cabinet policy approval): o ~~Moving~~Enhance ~~existing~~ Electricity Support and move existing programs to government funding: – ~~Enhance~~Broaden Rural or Remote Electricity Rate Program (RRRP) – Expand the Ontario Electricity Support Program (OESP) – Create an LDC Affordability Fund – Provide On-Reserve First Nations Delivery Credit o On-going activities to bend the costs curve of electricity (Ontario Energy Board, Independent Electricity System Operators) o Providing significant and immediate rate relief through cost deferral of the Global Adjustment (Smoothing the Global Adjustment)	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested – Social Programs	200.0	665~~738~~.0	753~~828~~.0
– Global Adjustment Smoothing*	0.0	2,534.0	2,668.0
Initiative cost recommended	0.0	0.0	0.0
Recommended program base (Ontario Rebate for Electricity Consumers)	300.0	1006.0	1004.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact	200.0	3,199~~272~~.0	3,421~~96~~.0

*Assumes Global Adjustment smoothing impacts the deficit

IV. KEY COMMENTS AND CONSIDERATIONS

Since 2010, electricity costs have increased as the province has made investments in clean energy generation and modernized electricity infrastructure. Electricity bills are expected to continue to increase

as more renewable energy projects come online. Since 2010, average bills for residential consumers (i.e., using 750 kWh/month) have increased by over 50%. Rates paid by commercial and industrial electricity consumers have increased by 56% and 6% respectively over the same period. Appendix C provides supporting background information.

Ontario currently provides rate mitigation to various electricity consumers through a combination of government funded and rate-based programs. Rate-based programs are funded by shifting costs from one electricity consumer group to another.

The government has committed to providing electricity cost relief to consumers. Since the 2016 Throne Speech, the government has taken a number of actions to further reduce electricity costs, including:

- Providing an 8% rebate on the pre-tax cost of electricity to consumers eligible for the Regulated Price Plan (i.e., residential, small business and farms), equivalent to the provincial portion of HST, effective January 1, 2017.
- Expanding support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.
- Expanding Industrial Conservation Initiative (ICI) eligibility by lowering the threshold to 1 MW, to provide support to additional commercial, institutional and small industrial consumers.

The Ministry of Energy is proposing additional electricity price mitigation initiatives that will provide additional rate relief across all residential and small business electricity consumers, providing up to 25% rate relief in aggregate, by helping the most vulnerable Ontarians through enhancements to existing support programs, smoothing the impacts of the global adjustment and working to bend the future cost curve of electricity.

1) Helping the most vulnerable Ontarians (Customers who are disproportionately affected by increased electricity costs) by enhancing electricity support programs and shifting cost onto the tax-base:
    a) Enhance the Rural or Remote Electricity Rate Protection (RRRP including harmonizing distribution cost for customers with the highest distribution rates)
    b) Expand the Ontario Electricity Support Program (OESP)
    c) Establish a new one-time Local Distribution Company (LDC) Affordability Fund in 2016-17
    d) Delivery charge relief for on-reserve First Nations customers

2) Ongoing activities to bend the future cost curve of electricity:
    a) Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
    b) Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.
    c) Explore additional cost savings to future electricity rates as part of the 2017 Long-Term Energy Plan to help offset the impact of GA recoveries.

3) Refinancing Global Adjustment assets in order to smooth the impacts of the Global Adjustment across ratepayers over a longer period of time.

4) Support for tenants & Supports for smaller Class B – conservation efforts (Under Development) – the Ministry is exploring options to extend electricity support programs to those who do not qualify for existing programs, either because they do not pay for their own electricity bills or because they are too large for the RPP (and associated support programs) but too small to qualify for the ICI for large consumers.

<u>1) Enhancing electricity support programs and shifting cost onto the tax-base</u>

To date, a number of electricity support programs are funded through the electricity rate-based. The

Ministry is proposing to shift these costs to ~~the~~ government funding and to enhance these programs to provide additional support to a subset of customers who are disproportionately affected by increased electricity costs.

The Ministry estimates that proceeding with the enhancement of the electricity support programs and shifting cost onto government funding would cost $200M in 2016-17 and increasing to $892~~972~~M by 2020-21. Moving existing program costs to the tax base would result in a small cost reduction for other ratepayers (approximately $2 for the average residential consumer), but represents more than half of the fiscal impact associated with these proposals.The following table shows the fiscal impact of the proposals (Note: 2017-18 figures are full year, however programs would require implementation period estimated 3-6 months):

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	24~~394~~	250~~302~~	256~~309~~	263~~318~~
	Enhancement[2]	-	216~~38~~	222~~45~~	228~~52~~	234~~59~~
	TOTAL[2]	-	**459~~532~~**	**472~~547~~**	**484~~561~~**	**497~~577~~**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund		200	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**200**	**665~~738~~**	**753~~828~~**	**829~~906~~**	**892~~972~~**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet Submission.

Appendix D provides details on each of the programs and their enhancement.

2) Ongoing activities to bend the future cost curve of electricity

The Ministry is proposing a number of ongoing activities to bend the future cost of electricity. This includes leveraging the Ontario Energy Board (OEB) to identify opportunities for red-tape reduction and future LDC efficiencies. In addition, the Ministry will continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives.

Details of these activities can be found in Appendix E.

3) Global Adjustment Smoothing

The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.

The Ministry indicates the majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to provide value to the electricity system beyond their

contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.

The Ministry is proposing to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs. Through GA Smoothing, these costs would be spread over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month. Bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021, and from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding 10% of total electricity costs.

The Ministry continues efforts to identify an effective business structure to support:

- Required increase in provincial borrowing
- No increase in net debt,
- No impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG.

Based on the current stage of the analysis of the accounting, legal and financing risks, it is possible that the deferral of the GA will be recognized as an expense in the fiscal plan. The table below shows the projected fiscal impact based:

($M)	2017-18	2018-19	2019-20	2020-21
GA Smoothing for RPP Eligible Only – Residential Bills Lowered 25% (with Government Funded 8% Rebate and Social Programs, 2% increase)	2,534	2,668	2,942	3,420
Interest Portion	*32*	*162*	*298*	*449*

Note: Potential to avoid fiscal impact would depend heavily on decision on finalization of the accounting, legal and financing analysis. Based on an annual interest rate of 5% compounded monthly.

Analysis conducted by the Ontario Financing Authority, MOF indicates that over the 30-year GA smoothing period, estimated total accumulated interest costs exceed the estimated total cumulative savings produced under each option. Interest costs are also highly sensitive to interest rate assumptions and actual borrowing costs.

- In an effort to smooth out the GA, ratepayers will incur interest costs that over a 30-year period, will be added to the GA payments ratepayers make. Under the options above, interest costs exceed the amount being financed (i.e. benefit being provided) over the 30-year periods.

$ millions	Total Cumulative Savings	Total Accumulated Interest Costs
Option 1	$24,977	$35,542

Assumes an interest rate of 5% (compounded monthly).

The Ministry will report back to TB/MBC in Spring 2017 on a recommended approach, with an objective of addressing legal, financing and accounting challenges while minimizing fiscal risks. If unsuccessful in identifying an effective transaction design which avoids significant fiscal impacts, it is reasonable to require the Ministry to return with results of further analysis of alternative approaches to mitigate fiscal impacts versus adding GA smoothing directly to the deficit.

More details can be found in Appendix F.

4) Support for tenants & Supports for Class B – conservation efforts (Under Development)

The Ministry submission discusses various options and considerations, including support to renters/tenants and to Class B consumers, but it not making recommendations at this time. The Ministry will report back in 2017-18 on these options. Appendix G provides more information.

Monthly Electricity Bill Impact

Appendix H illustrates expected impacts) of the above proposals on electricity bills. An average residential customer bill in July 2017 is expected to see a 25% decrease. This includes the 8% rebate that came into effect on January 1 2017.
Enhanced RRRP initiative and expanded OESP will provide additional bill savings for certain consumers:

- Enhanced RRRP – An estimated 700,00ustomers would benefit seeing additional savings in the range of $12-$75 on their monthly bill.
- Expanded OESP – OESP consumers would see savings of approximately $40 – $113 on their monthly bill (up from the current $30 - $75).

The LDC Affordability Fund will produce bill savings once installation of energy efficiency measures is completed for targeted consumers.

The On-reserve First Nations Delivery Credit could result in an $85 monthly savings if Ontario Energy Board's recommendations are implemented.

Key Risks and Considerations

Electricity Support Programs - Cost Projection, Program Effectiveness and Fiscal Impact

The Ministry of Energy is bringing forward a suite of initiatives to address the impact of rising electricity prices. The sector is complex and a number of key assumptions used as inputs into the model are variables/forecasts themselves. As such, there is an inherent risk in the cost estimates that are provided. Hence, it is important to ensure the models and assumptions are stress tested. Sensitivity analysis, which would allow the government to develop a risk based outlook to manage potential fluctuations in the cost of these initiatives, would support better decision making and support meeting the government's fiscal targets.

Cost projections may also need to be refined as program details are finalized. This is similar to the initial projections for the cost of the 8% rebate in September 2016. At the time of the briefings in advance of the initial approval, the cost projection for the 8% rebate was $1B for the first year. The projections were refined, resulting in a revised estimate of $1.1B for the first year, rising to $1.2 B in the out years.

Program costs are also highly dependent on uptake and electricity usage and as such, can fluctuate from year to year. For example, the OESP currently has an uptake rate of 30%, the Ministry's cost estimates assume ramping up to 100% over four years (i.e., moving to 100% participation), there is potential for significant underspending if participation rate is between 30% and 100%. It is also important to understand how these enhanced electricity programs may impact the behaviour of various key stakeholders going forward with regard to program uptake and electricity usage and hence the assumptions built into the models and the financial estimates.

As there is no sunset date for the proposals, it is important to understand the full cost of the initiatives for the longer term, beyond the year 2021-22 as outlined in the submission. Furthermore, electricity prices are projected to increase above inflation for the foreseeable future. It is unclear if the initiatives proposed in the submission would be sufficient to bring the cost increases to be at or below inflation. Otherwise, the gap could continue to increase/widen and may necessitate further action and supports by the

government.

It is also important to note that the effectiveness of the existing suite of electricity support programs (e.g. OESP, Home Assistance Program, RRRP) could also be evaluated to ensure that they are meeting program objectives and outcomes prior to enhancement and expansion. Key risks to highlight with individual program proposals:

- RRRP - the proposal is likely to create disincentives from the eligible LDCs towards productivity and performance improvements to drive down delivery costs/changes. In addition, the proposal may create an incentive for LDCs that fall just outside the cut-off to drive up their distribution costs to gain eligibility into the program. It is also important to note that the fiscal impact of this initiative is projected to increase beyond 2023 due to regular rate increases. It is recommended that the Ministry provide a long term forecast along with underlying assumptions, with risk bands that account for variability of distribution costs and the proposed distribution charge cap, to show the full expected financial impact of this initiative on the long term fiscal plan.

- OESP - the OESP currently has low uptake, consideration could be given to focussing efforts on increasing the take-up of the existing program, and seeing the effectiveness of the supports, before benefits are further enhanced. This approach may not only lower the fiscal impact in the short-term, but ensure that the effectiveness of the program can be assessed before it is scaled up.

- Affordability Fund – as program development continues to be finalized, the Ministry should continue to work with Treasury Board Secretariat and the Ministry of Finance on considerations around eligibility, relief amounts, fiscal impacts under different administration/delivery options (eg program delivery by outside entities through a trust structure vs ministry delivery), and key implementation risks.

  Considerations should be given to the development of performance metrics, including methods to evaluate whether the program is meeting its objectives and outcomes, to ensure the program is responding to the right elements and doesn't inadvertently incent adverse behaviour regardless of the capacity to pay.

  To be accounted for as a non-controlled trust, several elements must be addressed including who really controls the trust, who are the beneficiaries and whether unused funds are to be returned to the Province in the event of a windup.

As such, it is recommended that the Ministry of Energy work with Treasury Board Secretariat (Centre of Excellence for Evidence-Based Decision Making) and the Ministry of Finance as program development is finalized in order to better assess program costs projections, forecasting models, program effectiveness and performance metrics and outcomes and report back to TB/MBC.

Global Adjustment - Accounting Implications and Fiscal Impacts

There remains continued uncertainty around effective transaction design and related accounting treatment for a number of the initiatives (the Global Adjustment (GA) Smoothing and the New Affordability Fund). The risk exists that the fiscal impact of the proposals may be significantly higher than currently contemplated and estimated. The cost projections in this proposal are highly sensitive to interest rates, and Energy's and IESO's 30-year forecast of GA costs.

The intent is to establish a structure where the entity that takes on the GA and the debt required to smooth rates over a period of time would be a trust consolidated by Ontario Power Generation and thus reflected on the Province's books through modified equity consolidation.

If all the requirements can be met, an accounting analysis is expected to support: 1) increase in provincial borrowing; 2) no increase in net debt; 3) no impact on reported annual surplus/deficit, but depending on funding to OPG/Trust from the province, an increase in interest on debt and an increase in offsetting income reported for from the province's investment in OPG.

To date, the Ontario Auditor General (OAG) opinion on the proposal has not been sought. TBS will work with AG on the transaction. The auditors of OPG and IESO are providing their preliminary assessments and the Office of the Provincial Controller (OPCD) has been engaged.

The Ministry's submission assumes that the proposed GA smoothing will receive a favourable accounting treatment; hence it will not impact the provincial net debt and fiscal plan (For prudence, until there is legal, financing and accounting risk assessment, GA smoothing is shown as impacting the deficit). Should the favourable accounting treatment not be received, the impacts would be significant and variable depending on market changes (interest rates and cost of generation). In addition to having a significant fiscal impact, the proposed plan would also introduce significant volatility to the medium- to long-term fiscal plan as interest rates, energy prices, and consumer behaviour change.

The current cost estimates assume that the program is provided to RPP Eligible participants. Given the new incentives to be in the RPP in the initial years, and opt out later, applying the GA smoothing impact to RPP eligible is appropriate; otherwise, consumers would have an incentive to opt out of the RPP costs again when costs begin to increase and it would be challenging to fully recover the debt, or charge non-opted out consumers proportionately more.

<u>Implementation/Legal/Other Considerations</u>

- Legal advice on the constitutional risk posed by the proposal to defer the current costs to consumers of the global adjustment, to be paid for by consumers in future years, noted a moderately high constitutional risk of resulting in an unconstitutional tax. It creates a refinancing structure which results in future consumers paying disproportionately more of the GA cost and therefore cross-subsidizing near-term consumers.
    - This advice was based on a review of the proposal from February 9, 2017. The Ministry's draft Cabinet submission indicates this risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

Name of analyst:	James Strang With input from COE, OPCD and OFA	**Phone number:**	416-327-2071
Date:	February 26, 2017	**Log number:**	
Branch / Division:	GGPR/ PEMD/ Treasury Board Secretariat Tax Policy Division/ Ministry of Finance Ontario Financing Authority/ Ministry of Finance		

APPENDIX A: PROPOSED MINUTE (DRAFT)

Should TB/MBC wish to proceed with the Ministry's request, the following minute could be considered:

Approve electricity rate mitigation actions that support up to a 25% electricity bill reduction (including the 8% reduction announced in 2016) for an average household in 2017.

In this regard, the Board:

i. Direct the Ministry of Energy to implement electricity rate mitigation for all electricity consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor by:

   a) Subject to completed legal, accounting and financing risk assessments, refinance the Global Adjustment (GA) in order to partially defer RPP-eligible ratepayer GA costs by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to 15%. Total projected bill increases will be kept in line with CPI until the end of 2021. From 2022 onwards, bills will increase at a rate that ensures gradual recovery of the accumulated debt by 2048.

   b) Direct the Ministry to, if a non-fiscal mechanism cannot be established, report back to Cabinet and TB/MBC with options for achieving a comparable level of electricity rate mitigation in the most cost effective way, in order to minimize the impact on the province's fiscal plan.

   c) Direct the Ministry to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment , including, but not limited to:

      - Formal accounting opinions from OPG and IESO auditors.
      - Completed legal, financing and accounting risk assessments. Assessments to include, but not limited to proposed legislation, technical aspects such as Eurig analysis, and risk to borrowing (in discussion with the OFA).
      - Report on the multi-year profile of GA smoothing, identifying specific assumptions.
      - Report on sensitivity analysis completed as assumptions vary, such as under different recovery rates and periods.
      - Overall risk mitigation plan addressing completed legal, accounting and financing risk assessments.

   d) Note costs to government of proceeding if cost of refinancing of Global Adjustment is recognized as an expense in the fiscal plan of up to $2,534,000,000 in 2017-18, $2,668,000,000 in 2018-19, $2,942,000,000 in 2019-20, $3,420,000,000 in 2020-21 and on-going.

ii. Broadening the Rural or Remote Rate Protection (RRRP) program to mitigate distribution charges for customers of Local Distribution Companies (LDC) with some of the highest distribution rates, and moving the program from a ratepayer funded program to a government funded program beginning in 2017, including:

a) Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the cost paid by the average consumer of the LDCs noted by fall 2017.

Commented [EK1]: Energy`s slide deck states that the distribution rate woud be set at "the lowest distribution rate paid by an average consumer in this group"

b) Note costs estimated at up to $532,000,000 in 2017-18, $547,000,000 in 2018-19, $561,000,000 in 2019-20, and $577,000,000 in 2020-21 and on-going as part of the 2017-19 PRRT planning process.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to broaden RRRP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the broadened program now government funded
- Report on and assessment of impacts of consolidation of LDCs
- Assessment of distribution rates and implications for the program

iii. Expanding every benefit level of the Ontario Electricity Support Program by 50%, moving the program from a ratepayer funded program to a government funded program beginning in 2017 and pursuing additional measures to substantially increase take-up.

f) Note costs estimated at up to $186,000,000 in 2017-18, $261,000,000 in 2018-19, $325,000,000 in 2019-20, and $375,000,000 in 2020-21 and on-going as part of the 2017-19 PRRT planning process.

g) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

h) Direct the Ministry to work Treasury Board Secretariat (Behavioural Insights Unit, Centre of Excellence for Evidence-Based Decision Making) to accelerate/ maximize program uptake.

i) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to expand OESP.

j) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Identify eligibility criteria, and refinements being made.
- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the expanded program now government funded.

iv. Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.

a) Approve to commit up to $200,000,000 on a multi-year basis to support the Affordability Fund.

b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

v. Establishing a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve.

k) Note costs estimated at up to $20,000,000 in 2017-18, $20,000,000 in 2018-19, $20,000,000 in 2019-20, and $20,000,000 in 2020-21 and on-going as part of the 2017-19 PRRT planning process.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant Ontario Energy Board estimate of program costs, from $13M to $20M.

b) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

vi. Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500kW to enhance competitiveness for Class B electricity consumers beginning July 2017.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, results achieved to date versus expectations, impacts of the change for participation, and impact for ratepayers as costs are recovered from ratepayers.

vii. Direct the Ministry:

a) To work with Treasury Board Secretariat and the Ministry of Finance on the development of a comprehensive risk-based costing, including forecast models and sensitivity tests on assumptions and financial estimates, for the electricity mitigation initiatives.

b) To report back to TB/MBC through regular updates including quarterly reports and the 2018-19 Program Review, Renewal and Transformation (PRRT) on the status of implementation, and revised out-year expenditure requirements if applicable.

c) To continue to work with the Ontario Energy Board, the Independent Electricity System Operator and Ontario Power Generation, through the Long-Term Energy Plan 2017, to further reduce electricity rates across the system.

d) To work with the Ministry of Finance, Treasury Board Secretariat, Cabinet Office and Office of the Premier on an integrated communications strategy.

APPENDIX B: FINANCIAL TABLES

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
		Fiscal Plan Basis			*Appropriations Basis*
$ Millions		**2016-17**	**2017-18**	**2018-19**	**2016-17**
Initiative cost		200.00	3,272.000	3,496.0000	
Expense changes:					
Social Programs	Oper	0.0000	738.0000	828.0000	200.0000
Global Adjustment Smoothing (Contributing towards up to 25% bill reduction)(Assumes it impacts the deficit)	Oper	0.0000	2,534.0000	2,668.0000	0.0000
Total Fiscal Impact		**200.0000**	**3,272.0000**	**3,496.0000**	**200.0000**

APPENDIX C: ELECTRICITY SECTOR BACKGROUND

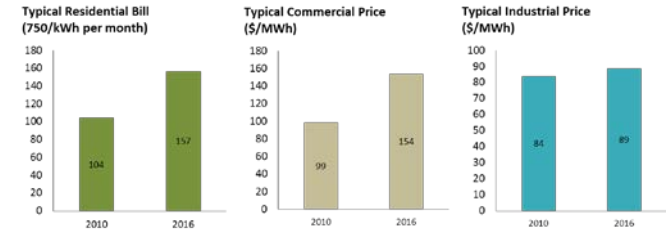
The Ministry has provided the following information to provide electricity sector context this item.

There are three classes of electricity consumers:

	Regulated Price Plan	Class B	Class A
Consumer Types	• Residential • Small Business • Farms	• Commercial • Institutional • Small industrial	• Large commercial • Large industrial
Load Size	Below 0.05 MW	Between 0.05 MW and 3 MW	Above 3 MW*
Total Consumption	58 TWh	57 TWh	26 TWh
Share of Consumption	41.1%	40.4%	18.4%

*** Note:** Consumers with peak demand between 3-5 MW in the manufacturing, mining, refrigerated warehousing, greenhouses and data-processing industries are currently eligible for Class A. All other 3-5MW consumers are Class B.

Since 2010, average bills for residential consumers (i.e., using 750 kWh/month) have increased by over 50%. Rates paid by commercial and industrial electricity consumers have increased by 56% and 6% respectively over the same period.



Note: 2016 represents May 2016 for residential and YTD June 2016 for commercial and industrial.

Existing Rate Mitigation efforts are on-going:

- Ontario currently provides rate mitigation to various electricity consumer classes through a combination of tax-based and rate-based programs.
  - For example, Northern Ontario residential electricity consumers receive tax credits in recognition of higher electricity costs in the north and rural consumers receive a subsidy funded through the rate-base due to the higher cost of delivering power to rural areas.
  - As of 2016, the government removed the Debt Retirement Charge (DRC) from residential electricity bills. While this saves a typical residential electricity ratepayer about $60 per year, it is less than the benefit previously provided through the Ontario Clean Energy Benefit (OCEB).
  - The Ontario Electricity Support Program (OESP) provides ongoing assistance directly on the bills of eligible low-income electricity consumers.
  - The Industrial Conservation Initiative (ICI) encourages Ontario's largest consumers to reduce consumption during peak periods while reducing system costs.

- The Rural or Remote Rate Protection (RRRP) program is provided to rural or remote residential and farm customers because the cost of distributing power to remote areas is much higher than for urban areas.

- Currently, electricity costs must be fully recovered from electricity consumers, rate mitigation funded through the rate-base often represents a shifting of costs from one consumer group to another (i.e., industrial to residential and commercial consumers).
  - Rate-based initiatives are generally associated with incenting changes in behaviour that provide electricity system benefits (i.e., shifting electricity consumption from on-peak to off-peak periods).

The table below shows the estimated cost shifts in the province's electricity system that result from three existing government programs (i.e., ICI, RRRP and OESP):

Cost Shift Impact	2011	2012	2013	2014	2015	2016
Residential Bill ($/month for 750 kWh)	3.55	4.07	3.85	4.46	5.68	6.55
Commercial – Class B ($/MWh)	4.74	5.43	5.14	5.94	7.57	8.73
Industrial – Class A ($/MWh)	-20.97	-25.26	-22.38	-24.68	-32.56	-31.55

Note: Negative values indicate a benefit; positive values denote an incremental charge.

Since 2013, a number of actions have and are being taken to reduce overall electricity system costs. Despite these actions to reduce system costs, electricity rates continue to increase for consumers:

- Renegotiating the Green Energy Investment Agreement, reducing contract costs by $3.7 billion;
- Deferring the construction of two new nuclear reactors at Ontario Power Generation's Darlington facility, avoiding an estimated $15 billion in new construction costs;
- Approving Ontario Power Generation's plans to enable the ongoing operation of Pickering up to 2024, which is expected to save ratepayers as much as $600 million.
- Reducing Feed-In-Tariff (FIT) prices through annual price reviews, saving ratepayers at least $1.9 billion relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast; and
- Removing an expected $3.3 billion in Large Renewable Procurement (LRP) costs relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast, based on the results of the first phase of the LRP.

The existing program costs are summarized in the table below:

($M)	2014-15	2015-16	2016-17[1]	2017-18[1]	2018-19[1]	2019-20[1]	2020-21[1]
OCEB	1,078	860	-	-	-	-	-
OREC	-	-	300	1,100*	1,200	1,200	1,200
Ending DRC[2]	-	85	330	330			
NIERP	108	120	120	120	120	120	120
NOEC	24	26	25	25	25	25	25
OEPTC[3]	429	444	450	460	470	481	481
TOTAL	1,639	1,535	1,225	2,035	1,815	1,826	1,826

1. 2016-17, 2017-18 based on forecasted numbers
2. Effective January 1, 2016. 2015-16 estimated for 3 months of reduced DRC revenue
3. OEPTC amounts in all years based on energy component of the rebate.

* Sourced from Energy PRRT submission

OCEB – Ontario Clean Energy Benefit, NIERP – Northern Industrial Electricity Rate program, DRC – Debt Retirement Charge, OREC – Ont. Rebate for Electricity Consumers, NOEC – Northern Ontario Energy Credit, OEPTC – Ont. Energy & Property Tax Credit

APPENDIX D: DETAILED INFORMATION SUPPORTING PROPOSED INITIATIVES

The Ministry is proposing the following to further mitigate electricity prices for consumers:

1. Targeted initiatives helping the most vulnerable Ontarians (Customers who are disproportionately affected by increased electricity costs) by enhancing electricity support programs and shifting cost onto the tax-base:

    - Targeted customers:
        - High Delivery Cost Customers – Some customers in rural areas where the cost to delivery electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
        - Low-Income Customers: Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
        - First Nation On-Reserve Customers: On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

    - Initiatives providing targeted assistance to ease the electricity cost burden:
      1a. Enhance the Rural or Remote Electricity Rate Protection (RRRP);
      1b. Expand the Ontario Electricity Support Program (OESP);
      1c. Establish a Local Distribution Company (LDC) Affordability Fund; and
      1d. Delivery charge relief for on-reserve First Nations customers.

2. Ongoing activities to bend the future cost curve of electricity:
    - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
    - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

3. Refinancing Global Adjustment assets in order to smooth the impacts of the Global Adjustment across ratepayers over a longer period of time.

4. Support for tenants & Supports for Class B – conservation efforts

1) Enhancing electricity support programs and shifting cost onto the tax-base

1a) Rural or Remote Rate Protection (RRRP) Enhancement

The Rural or Remote Rate Protection (RRRP) program mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.

The program, which costs approximately $242M/year is currently funded by ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial.

Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest delivery costs in the Province.

- From 2001-2016 the program provided $125.4M annually to help defray these costs.

- In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
- As of Jan 2017, R2 customers receive $60.50/month off their distribution costs.

While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (e.g. Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma) and Hydro One R1 customers (medium density).

The Ministry is proposing to enhance RRRP by:

- harmonizing the fixed distribution rates at $38/month for R2, R1 and the next seven highest cost LDCs (enhanced benefits for ~280k consumers and new cost decreases for ~420,000 consumers)
- funding its costs through the tax base from the rate base;

For this proposal, targeted RRRP consumers (an estimated 700,000 customers would benefit from this enhancement) would see additional savings in the range of $12-$75 on their monthly bill. The fiscal impact of this program is approximately $454M in 2017-18.

Implementation considerations:

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program. Legal and regulatory risks (particularly with regards to legal authority and to the Ontario Energy Board's role in setting rates and incenting efficiencies) require further analysis
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

Fiscal considerations:

- Distribution costs vary year to year.
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
TOTAL	-	454	450	446	444

1b) Ontario Electricity Support Program (OESP) Expansion

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base. OESP credits vary by income level and family size, and there are two credit scales that include:

- The basic program credit ranges from $30/month to $50/month.
- An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.

The OESP was launched on January 1, 2016, and in just over a year:

- Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
- Almost $50 million in credits have been provided to vulnerable consumers.
- Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.

The Ministry is proposing to enhance OESP and fund its costs through the tax base by:

- increasing the existing benefit scales by an additional 50%;
- expanding the categories of OESP credits

The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes – greater access to OESP credits at smaller family sizes at different income levels)::

Existing OESP Credit Scales

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$30	$30	$34	$38	$42	$50	$50
$28,001 - $39,000			$30	$34	$38	$42	$50
$39,001 - $48,000					$30	$34	$38
$48,001 - $52,000							$30

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$45	$45	$50	$55	$60	$75	$75
$28,001 - $39,000			$45	$50	$55	$60	$75
$39,001 - $48,000					$45	$50	$55
$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$45	$45	$51	$57	$63	$75	$75
$28,001 - $39,000		$40	$45	$51	$57	$63	$75
$39,001 - $48,000			$35	$40	$45	$51	$57
$48,001 - $52,000					$35	$40	$45

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$68	$68	$75	$83	$90	$113	$113
$28,001 - $39,000		$60	$68	$75	$83	$90	$113
$39,001 - $48,000			$52	$60	$68	$75	$83
$48,001 - $52,000					$52	$60	$68

For this proposal, OESP consu savings of approxima their monthly bill (up from the current $30 - $75). This proposal would have a fiscal impact of approximately $186M in 2017-18 increasing to $375M by 2020-21.

Implementation and fiscal considerations:

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.

- o If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- o Adding additional categories to the OESP matrix require will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

Note: OESP participation ramps up to 100% year 4

1c) LDC Affordability Fund

The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

The Ministry is proposing to establish an Affordability Fund which would be available to LDCs only to provide similar energy efficiency measures as provided under HAP to targeted customers (i.e., those who are most in need, such as those who are facing disconnection and who cannot qualify for the low-income programs).

To establish the Fund, the government would enter into a TPA with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province including, Hydro One, at the direction of the Trustees.

The Ministry indicates the Affordability Fund would not be used to provide grants or financial assistance to customers to forgive all or a portion of their arrears or electricity bill. It is not clear how the non-controlled independent entity (the AF Trust) would be blocked from a decision to cover arrears.

LDCs would apply for funding to the Fund administrator (Hydro One) to offer energy efficiency measures to its customers that meet the targeted eligibility criteria. Determination of eligibility could involve a number of factors and metrics:

- Do not meet the definition of "low-income";
- May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
- Require financial assistance to pay for energy efficiency measures.

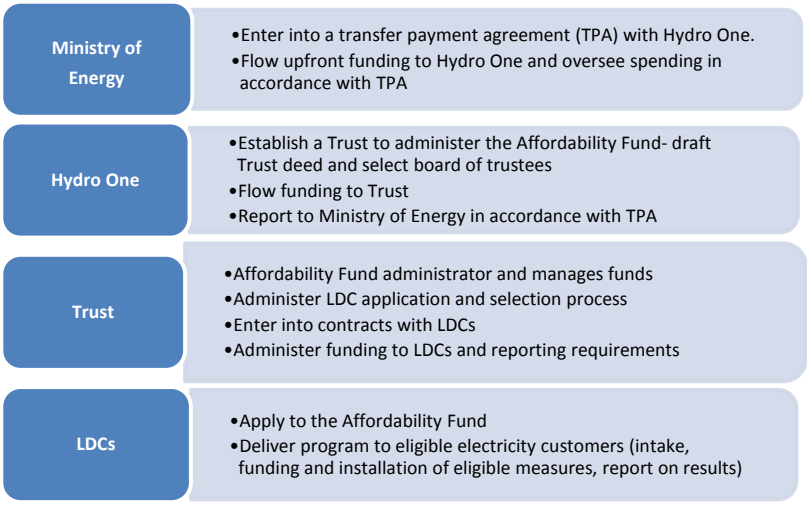
Recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17. Administration expense estimated to be 10% of the fund $20M, including expenses related to the Trust, Hydro One and LDCs. It is expected that the funds through the Affordability Fund will be

deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base.

The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

Figure 1: Summary of Roles and Responsibilities



Implementation and fiscal considerations:

- An illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households (having met targeted eligibility criteria), depending on measures and uptake.
- Administration expense estimated to be 10% of the fund $20M, including expenses related to the Trust, Hydro One and LDCs.
- The LDC Affordability Fund would be a fiscal impact of $200 million in fiscal year 2016-17.
- The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base.

1d) On-reserve First Nations Delivery Credit

On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve, average income is considerably lower, lower employment rates, historical grievances related to energy development on reserve lands and traditional territories, and impacts of energy infrastructure either present or due to connection delays. These challenges result in significantly higher electricity consumption levels and costs.

At the request of the Minister of Energy, the OEB worked with the Chiefs of Ontario to develop options to address these issues.

The ministry is proposing to implement the recommendations of the OEB's report:

- Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.
- Automatically qualify on-reserve First Nations residential customers (~21,500 customers)
- Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
- Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.

The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out. The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of up to $20 million (21,494 total customers across 9 distributors). OEB notes total annual costs could range between $13M to $20M.

Implementation and fiscal considerations:

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan
- Rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Appendix E: Ongoing Activities to Bend the Future Cost Curve of Electricity

Ontario Energy Board (OEB)

The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.

The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework. While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance. Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.

In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

The Ministry is proposing to help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation. In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses. This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

Independent Electricity System Operator (IESO)

The Ministry will continue to move forward with Independent Electricity System Operator’s (IESO) Market Renewal initiatives:

- Moving to “technology-agnostic” procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
- Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.

Changes related to IESO’s Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:

- About $1/month or less than 1% at current retail prices for a typical residential bill; and
- About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.

Appendix F: Refinancing Global Adjustment Assets To Smooth the Global Adjustment Across Ratepayers Over a Longer Time Period

At this time, the Ministry continues to work towards finalizing a structure for this initiative and plans to return to TB/MBC in Spring 2017.

The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized. The majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.

To enable this transition, generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs. he majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).

The Ministry indicates there is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs. In 2016, GA costs were $12.3 billion.

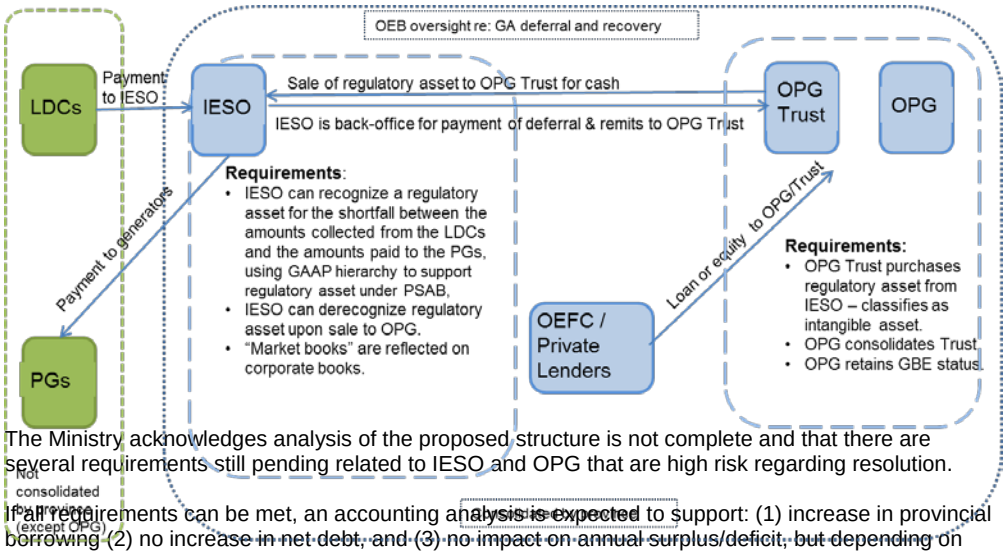
GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.

The Ministry is proposing to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs. Through GA Smoothing, these costs would be spread over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month. Bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021, and from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding 10% of total electricity costs.

The GA Smoothing options under consideration are illustrative, the Ministry notes, targeted to RPP eligible participants, and show potential rate mitigation measures to meet a total bill savings of 25%, 20% and 18% reduction from the projected residential bill in 2017 requires a significant GA subsidy. These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month. Actual ratepayer savings would vary due to differences in consumption patterns. Graphics for 25% and 18% appear at the end of this section.

The Ministry is working through different implementation options so as to mitigate negative fiscal plan implications GA smoothing. The following table shows the projected fiscal costs related to GA smoothing without legal and accounting treatments.

The Ministry has put forward a potential GA smoothing structure, as well as interactions between the sector entities and elements required to meet accounting objectives. The Proposed structure is still subject to legal, financing and accounting confirmation, and absent confirmation there would be a fiscal impact to the province.



The Ministry acknowledges analysis of the proposed structure is not complete and that there are several requirements still pending related to IESO and OPG that are high risk regarding resolution.

If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase on income from OPG.

- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.

Policy, Legal, Fiscal, Accounting considerations:

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices. A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs

- If Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA Smoothing (i.e., because it is only targeted to RPP consumers) – consideration could be given to provide tax-based measures to off-set electricity costs (e.g., tax-credits, programs, etc).

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

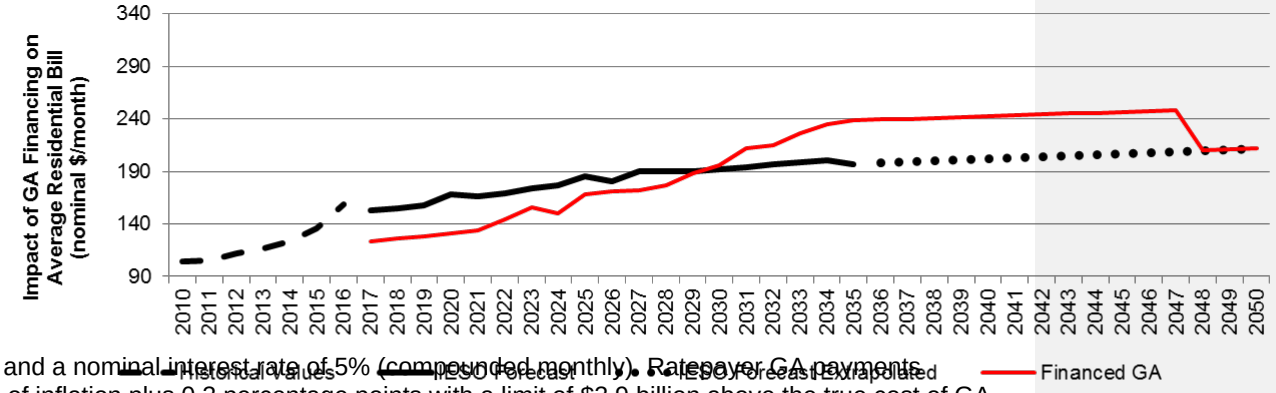
- The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation.

    - A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax.

      Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

- There is risk for any potential no fiscal impact implementation structure for GA smoothing given that the Ontario Auditor General has raised concerns about recognizing rate regulated assets and liabilities in previous Annual Reports.

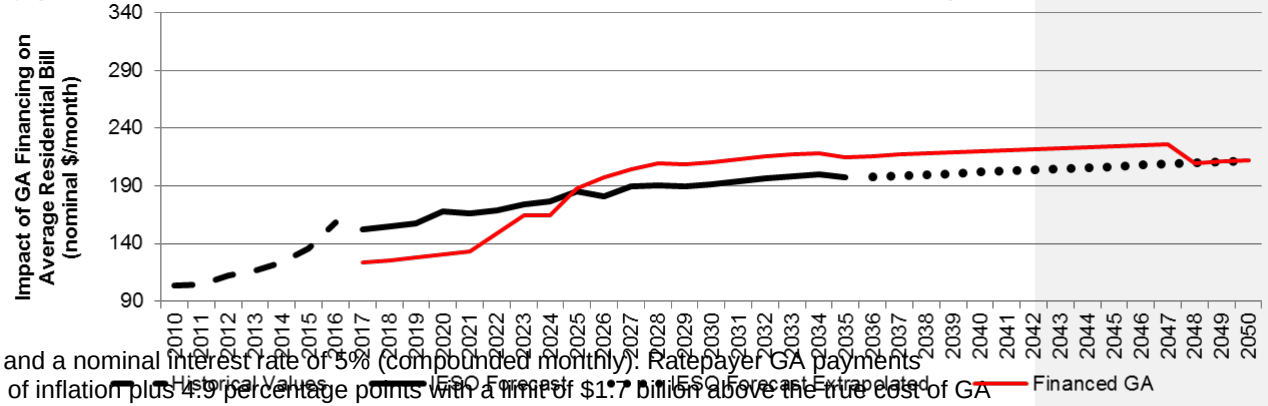
GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%) Original Option



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 at the rate of inflation plus 0.3 percentage points with a limit of $3.9 billion above the true cost of GA in any given year. IESO forecast is [illegible] and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	144	155	150	168	171	172	177	188	195	212	215	226	235	238	239	240	241	242	242	243	244	245	246	247	247	248	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	8.1	7.7	-3.2	11.6	1.9	0.4	3.2	5.9	4.2	8.6	1.4	5.0	4.0	1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-15.5
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-22.0	-16.3	-23.0	-15.2	-8.4	-16.1	-11.8	-1.7	3.3	15.9	16.5	24.3	31.1	36.7	36.5	36.4	36.2	36.1	35.9	35.8	35.6	35.5	35.3	35.2	35.0	34.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.6	20.2	23.6	26.4	28.6	31.7	34.5	36.4	38.0	38.3	38.5	37.9	36.6	34.5	32.4	30.1	27.7	25.2	22.6	19.8	16.9	13.9	10.7	7.3	3.7	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.0	2.6	3.4	2.8	2.2	3.1	2.8	1.9	1.5	0.3	0.2	-0.6	-1.3	-2.1	-2.2	-2.3	-2.4	-2.5	-2.6	-2.8	-2.9	-3.1	-3.2	-3.4	-3.5	-3.7	0.0

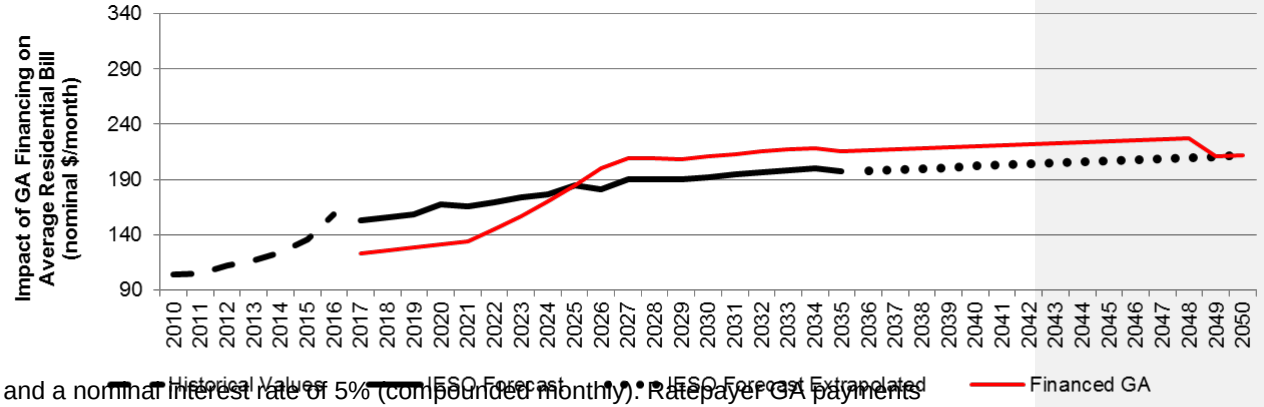
GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 at the rate of inflation plus 4.9 percentage points with a limit of $1.7 billion above the true cost of GA in any given year to cap repayment charges at a maximum of 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Inclu
Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residentialbillw GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	149	164	165	188	197	204	209	209	211	213	215	217	219	215	216	217	218	219	220	221	221	222	223	224	225	226	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	11.3	10.6	0.2	14.0	5.1	3.6	2.5	-0.4	1.0	1.2	1.0	0.9	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-7.2
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-18.2	-8.3	-10.4	2.4	14.8	12.8	16.8	16.8	16.7	16.7	16.5	16.4	16.3	16.1	16.0	16.0	15.9	15.8	15.8	15.7	15.6	15.6	15.5	15.4	15.4	15.3	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.2	19.0	21.0	21.8	21.5	21.2	20.6	19.9	19.2	18.5	17.7	16.9	16.1	15.2	14.2	13.2	12.2	11.1	9.9	8.7	7.4	6.1	4.7	3.2	1.6	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	2.6	1.7	2.0	0.8	-0.4	-0.2	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-0.9	-1.0	-1.0	-1.1	-1.2	-1.2	-1.3	-1.3	-1.4	-1.5	-1.6	-1.6	0.0

GA Smoothing for <u>RPP-Eligible Only</u> (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt, Smoothed Increase)



Notes: Assumes 31 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 8.4 percent per year with a limit of $1.7 billion above the true cost of [illegible]. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill *($/month)*	[illegible]																					213	215	217	219	215	216	217	218	219	220	221	221	222	223	224	225	226	227
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	8.4	8.4	8.4	8.4	8.4	4.6	0.3	-0.4	1.0	1.2	1.0	0.9	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-21.7	-15.1	-5.8	-0.7	16.9	16.8	16.8	16.8	16.7	16.7	16.5	16.4	16.3	16.1	16.0	16.0	15.9	15.8	15.8	15.7	15.6	15.6	15.5	15.4	15.4	15.3	15.3
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.6	20.0	21.7	22.8	22.3	21.7	21.1	20.4	19.8	19.1	18.3	17.5	16.7	15.8	14.9	14.0	13.0	11.9	10.8	9.6	8.4	7.1	5.7	4.3	2.8	1.2	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.0	2.4	1.6	1.2	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.2

Appendix G: Support for Tenants & Supports for Class B – Conservation Efforts

Support for Tenants:

The Ministry of Energy and the Ministry of Housing have explored whether it is possible to extend these programs to tenants who do not pay their own electricity bills.

The Residential Tenancies Act (RTA) governs the relationship between landlords and tenants. While it may be possible to use the RTA to direct landlords to pass on savings such as the 8% Rebate to tenants, there would be significant complexities with such an approach (E.g., different metering configurations including bulk metering, individual, both combined in a building; enforcement to ensure rebates based on; and to distinction if it only applies to pre-1991 buildings that are covered by rent controls)

The Ministry of Energy and the Ministry of Housing have concluded that the most vulnerable consumers in the province in social housing do benefit indirectly from the existing mitigation measures such as the 8% Rebate. Social housing providers do receive the 8% Rebate, which allows them to offset some of their electricity costs, and can use these savings for other issues related to the building.

Support for Class B electricity consumers

Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers). The Ministry notes, the cost of electricity for Class B consumers has risen faster than CPI.

- Further lower the threshold for participation in the Industrial Conservation Initiatives (ICI) below the current 1MW, which was recently approved – takes effect July 2017. Sector restrictions would be included. It could be narrowed to a specific sector – allow only manufacturers below 1 MW to participate.
    - Cost would be covered by other ratepayers. Ministry's preliminary analysis notes an increase of just over $1/month increase for a typical residential bill.
    - Regulatory amendments need to be made before end of April 2017 (due to putting it in place before next 12 month billing period beginning Jul 1 ,2017)
- Eliminate DRC earlier than scheduled April 2018 for all non-RPP Class B consumers (Saves $7/MWh)
    - Shift Class B DRC to Class A consumers
    - Partially reduce Class B DRC (A $148M fiscal impact if lowered by 50% to $3.50/MWh)
    - Remove DRC completely for Class B (fiscal impact estimated at $295M in 2017-18)

- DRC Benefit Voucher – Class B customers would receive a voucher equivalent to all or a portion of their DRC charges on their electricity bills. The customer would use this voucher to increase or 'top-up' incentive amounts available through the Ontario Climate Change Solutions Deployment Corporation (OCCSDC). Vouchers could incent higher participation towards OCCSDC programs, helping these customers transition to a low-carbon economy.
    - Vouchers could be funded either through the GGRA if the voucher can be linked to GHG reductions, or the tax base. It is estimated that the outstanding balance for DRC relating to Class B customers from April 1, 2017 to March 31, 2018 is approximately $295M.
    - Not all Class B customers may be able to benefit from the vouchers (e.g. a facility with limited ability to implement new energy efficiency measures).
    - LDCs may need to make changes to their administrative processes and billing systems in order to confirm value of voucher.

APPENDIX H: ILLUSTRATIVE BILL IMPACT

The follow table show electricity bill impact of 25% reduction..

GA Smoothing for <u>RPP Eligible Only</u> – Residential Bills Lowered 25% (with Government Funded 8% Rebate and Social Programs, 2% increase)

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full total from GA financing.

From:	Emily Kerr
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 7:11:43 PM
Attachments:	3 BN ENERGY Affordability Fund v4 FINAL.DOC

One comment I have is that I believe the affordability fund ultimately only received $100 M in funding, as per the attached note.

From: John Kim
Sent: Thursday, April 06, 2017 6:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi Bruno,

I think this is the right one….could Emily take a look in the next few minutes? I just want to have another look to see if latest.

Thanks,

John

From: Bruno Amara
Sent: April-06-17 6:32 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi

Take a look. This is from a late February TB note.

Bruno

From: John Kim
Sent: Thursday, April 06, 2017 6:08 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: Fair Hydro Plan

I am in transit but will take a look.

On Apr 6, 2017, at 6:00 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

Hi,

Can we respond?

Ron

Begin forwarded message:

From: "Nguyen, Marianne (MOF)" <Marianne.Nguyen@ontario.ca>
Date: April 6, 2017 at 5:57:43 PM EDT
To: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
Cc: "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Hi team,

I'm writing a one pager on the FHP. Is there a handy table somewhere of the fiscal impact, broken down by the different elements? I know that was in one of the decks we used to brief the Minister towards the end of February, but I want to ensure I have the most up to date one.

I would really appreciate if you could help me track this down ASAP.

Thanks,

Marianne Nguyen
Senior Policy Advisor
Office of the Honourable Charles Sousa
Minister of Finance

Office: 416-325-0007
Mobile: 416-562-4452
Email: marianne.nguyen@ontario.ca

TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 6, 2017
Agenda Class:	Discussion
Last reviewed by: TB/MBC (March 1, 2017)	**Tracking to:** Fast Track Cabinet (March 8, 2017)

SUBMISSION TITLE:	Affordability Fund

I. DECISION BEFORE THE BOARD

- Approve funding in 2016-17 to support the Affordability Fund.

II. RECOMMENDATIONS:

• Approve $100,000,000 in 2016-17 offset from the Treasury Board Contingency Fund to support the Affordability Fund.	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested	200.0	0.0	0.0
Initiative cost recommended	100.0	0.0	0.0
Recommended program base	0.0	0.0	0.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact (C-fund)	100.0	0.0	0.0

IV. KEY COMMENTS AND CONSIDERATIONS

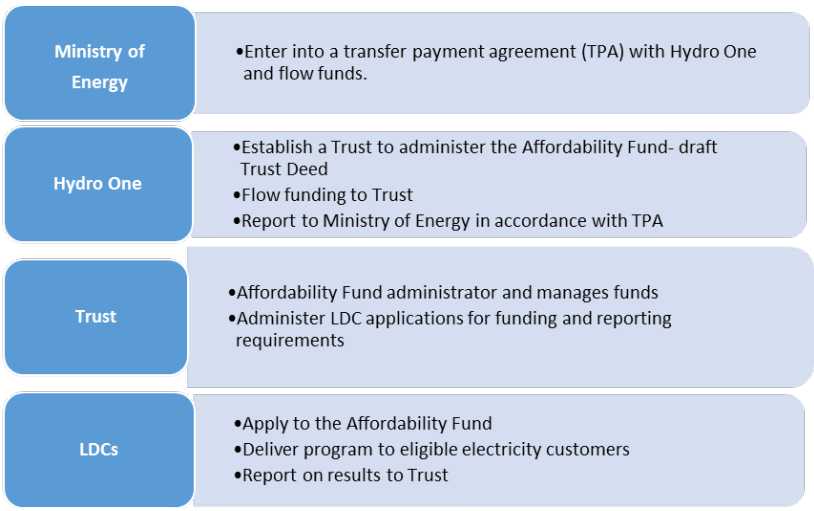
This item was part of the suite of initiatives before TB/MBC on March 1, 2017 related to electricity price mitigation. The Affordability Fund was minuted as follows:

> Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.
>
> a) Approved a commitment to provide up to $200,000,000 on a multi-year basis.
>
> b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

The Ministry's current request is for $200,000,000 in 2016-17 offset from the Treasury Board Contingency Fund. The Affordability Fund would be available to LDCs only and would target those electricity customers who do not qualify for low-income conservation programs (e.g. The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework) and who have difficulty paying their electricity bills.

- Ministry indicates that, based on LDC-reported data, 60,000 Ontarians at risk of disconnection from their electricity service each year. (TBS staff note a profile description or details of these consumers is not provided by the Ministry, and the Ministry has clarified this profile data has not been reported by LDCs to the OEB).
- Eligible customers will be identified by LDCs and could include those in frequent arrears or facing disconnection. Priority would be given to homes primarily heated by electricity. Appendix C outlines the Ministry's eligibility principles for the Fund.

To establish the Fund, the Ministry of Energy intends to enter into a Transfer Payment Agreement (TPA) with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province, including Hydro One, at the direction of the Trustees.



- The Trust's governing principles will be outlined in the Trust Deed and the Trust will be managed by a Board of Trustees.
    - The Trust Deed will be drafted by Hydro One with input from the province and others in the LDC sector. The goals and principles of the Fund will be outlined in the Trust Deed and be consistent with the TPA, but the Trustees will have the discretion as to how to achieve the goals in alignment with the principles.
- The Trust would include Trustees possibly from the government, from other LDCs across the province and other independent Trustees, but not be controlled by the Province.
- The Trustees will have the discretion to hire Hydro One or other entities as service providers to assist with administering the Fund.
- The Trust would distribute funds to LDCs across the province (including Hydro One) at the discretion of the Trustees.
- LDCs would identify their respective eligible electricity customers and deliver the funding in accordance with the program.
  To protect public interest, it is expected that the Trust Deed will reflect an expectation that accountability provisions be included in funding provided to the LDCs which are consistent with those required under the TPAD.

Since the submission was received centrally, the Ministry has been working with the Office of the Provincial Controller Division (OPCD) on appropriate funding arrangements (Providing the funding to the Trust directly versus providing funding to Hydro One, who would provide it to the Trust) to ensure that the Province's and the Auditor General's respective abilities to audit the use of the funds is maintained under the Province's Transfer Payment and Accountability Directive and the Auditor General Act. The Ministry is currently working with H1 and its external advisors on this topic, and further details will be available shortly. At this time, it is not anticipated that such changes would impair ability to complete the transfer by March 31st.

The Ministry indicates the measures funded through the Fund would be similar, or build on those available through the Home Assistance Program.

- The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

Affordability Fund recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the Ministry indicates the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake. The large range takes into account the potential take-up of more expensive measures such as cold climate air source heat pumps which can range in cost from $7-$13K, and which can achieve significant electricity savings.

Performance Measurement:

The submission indicates that Hydro One would provide support to the Province in exercising its oversight of the program by collecting reports from the LDCs on behalf of the Province and/or submitting regular progress reports on program participation. The TPA with Hydro One will include details on reporting requirements. There is currently no mention of outcome measures in the submission but such details are expected to follow as planning progresses. The Ministry notes the government can outline broader principles and intended outcomes but specific outcome targets (like helped X homes result in Y savings) would be seen as prescriptive and in conflict with the Trust model.

The Ministry will create a grant agreement (i.e., A Transfer Payment Agreement) consistent with OPCD's guidance on one-time transfers and TPAD.

Risks:
Appendix C is the risk table submitted by the Ministry. Many of the Ministry's cited risk focus on the quick timing to put the program in place in 2016-17, oversubscription of funds, and underspending.

The Ministry also notes moderate risk with a high impact from flowing the funds into an independent trust account also for limited accountability, oversight, and transparency provisions. TBS staff note the list of accountability provisions provided by the Ministry above does not explicitly mention (nor does the submission elsewhere) the Transfer Payment Accountability Directive (TPAD) principle – Value for money is expected in the expenditure of government funds. TBS staff noted OPCD's one-time guidance is implicitly aligned with TPAD including value for money expectation.

TBS staff notes moderate risk around geographical representation of members in the Trust, lack of program design details (e.g., LDC and customer eligibility criteria) and lack of articulation of what success looks like for the program to ensure accountability. With the non-application based program structure, eligibility and selection criteria needs to be clearly established to pass the equity test.

Financials:
The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17 offset from the Treasury Board Contingency Fund.

- The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

- Administration expenses will be in accordance with the Transfer Payment Directive.

- The Ministry expects that the funds through the Affordability Fund will be deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base. The Ministry intends to seek an exemption from the Cash Management Directive from the Ontario Financing Authority, MOF.

TBS staff note the March 1, 2017 minute was a commitment of up to $200M on a multi-year basis with direction to the Ministry Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

Given the high-level nature of the current submission without specific details from a pending TPA, nor a performance management framework in place to gather evidence to support evidence-based decision-making, it is recommended that only $100M in funding in 2016-17 be provided now (Of the multi-year $200M commitment) as it still demonstrates an upfront commitment. It also provides time to finalize program details and performance reporting framework and report back to TB/MBC on them by Q1 2017-18. For the 2018-19 PRRT, the Ministry can report back on Affordability Fund results achieved to date, and provide a value for money assessment, so that both can also act as evidence-based support for a future funding request.

Name of analyst:	James Strang	**Phone number:**	7-2071
Date:	March 3, 2017	**Log number:**	
Branch / Division:	General Government, Planning and Resources Branch, PEMD, TBS		

APPENDIX A: PROPOSED MINUTE

Approve providing $100,000,000 in 2016-17 for the government funded Affordability Fund.

In this regard,

i) Approve a Treasury Board Order, under the authority of the Financial Administration Act, in the amount of $100,000,000 in Green Energy Initiatives Transfer Payment, under Energy Development and Management (Vote/item 2902-1), offset by the Treasury Board Contingency Fund, to establish the Affordability Fund.

ii) Direct the Ministry to

a) Report back to TB/MBC by Q1 2017-18 with final program details, and a performance management framework including intended outcomes.

b) Report back to TB/MBC through the 2018-19 PRRT with spending to date, results achieved to date, a value for money assessment, and if needed at that time a multi-year funding request along with impacts to the Province's fiscal plan.

c) Provide regular updates to TB/MBC through regular reporting process including quarterly reports.

d) Work with Cabinet Office and the Office of the Premier to develop a communications strategy.

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
		Fiscal Plan Basis			*Appropriations Basis*
$ Millions		**20116-17**	**2017-18**	**2018-19**	**2016-17**
Initiative cost recommended		100.000	0.0000	0.0000	
Expense changes:					
Operating item – Green Initiatives TP	Oper	100.0000	0.0000	0.0000	100.0000
Total Fiscal Impact (draw from c-funds)		**100.000**	**0.0000**	**0.0000**	**100.0000**

APPENDIX C: AFFORDABILITY FUND PRINCIPLES

The Ministry has developed high-level principles by which the Affordability Fund will operate and will continue to refine these principles through discussion with all LDCs. LDCs are best positioned to provide further guidance on principles as they are closest to the customer and will be responsible for identifying the customers in need and delivering assistance to them. All LDCs will be able to apply to access to the Affordability Fund so they may address the needs of their customer base. Principles include:

- The purpose of the Affordability Fund is to assist electricity customers who do not qualify for low-income conservation programs, are struggling to pay their electricity bills, and are unable to make energy efficiency improvements to their homes without financial assistance. The Fund would offer these customers energy efficiency measures at no or minimal cost, providing LDCs with an additional tool to help customers in need to reduce their future electricity bills and avoid future disconnections.
- Trust and Trustees - The Fund is to be administered by an independent Trust. Trustees are to be representative and have relevant sector expertise.
- Allocation of funding to LDCs - Fund to be accessible to all LDCs on application basis, subject to consistent funding application and evaluation criteria.

Eligibility Principles:

- Customers who do not qualify for low-income conservation programs (i.e. are above Statistics Canada's Low-Income Measure).
- LDC has reasonable evidence to indicate that the customer requires financial assistance to pay for energy efficiency measures.
    - The Trust will be expected to consider the appropriate indicators for determining whether customers are reasonably in need. The Ministry does not expect that a new income threshold would be established, due to the administrative costs and timelines required to implement income-eligibility tests. The Ministry believes that other indicators available to LDCs would be sufficient.
- Customers may have triggered action by an LDC collection department (e.g., customers are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.).
    - Arrears are defined by the OEB as accounts that are 30 or more days past the 16-day minimum payment period.
    - LDCs have communicated that their customer care departments keep track of their customers who are in "frequent arrears" or "chronic arrears."
    - These terms are qualitative (i.e. do not refer to a set length of time or number of times customers are in arrears); however, generally ENERGY understands the bounds of these terms to be, on one end, customers who are in arrears for more than one billing period, and on the upper end, customers that have several thousand dollars in payments owing, accumulated from a number of missed or partially missed billing periods.
    - While arrears are an important indicator of need to LDCs, LDCs have also indicated that there may be customers who are keeping up with their bills, but at the expense of paying for food or other basic needs. LDCs have asked for discretion to also offer energy efficiency measures to these customers.
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances.
- Other factors as agreed by the Trustees.

Hydro One is expected to use the principles developed by the Ministry (with input from LDCs) to establish the Trust Deed. It is critical that there be fair and appropriate eligibility criteria for LDCs to consistently apply across the province to ensure that support is provided to those customers in need and to prevent any potential gaming.

The Trustees must be given some flexibility to determine this criteria. Flexibility is also desirable as it is expected that the Trustees will have knowledge of the LDC sector, customer needs and/or low-income and conservation programs to further refine appropriate customer eligibility criteria. It is also expected that Trustees will engage with other LDCs and industry experts as needed to inform eligibility criteria.

APPENDIX D: MINISTRY'S RISK ASSESSMENT AND MITIGATION STRATEGY

Risk	Likelihood (L/M/H)	Impact (L/M/H)	Mitigation Strategy
It is proposed that the funding for the Fund be expensed in 2016-17, while the programs would be delivered in future fiscal years. The Auditor General may ask for the funding to be expensed in future fiscal years.	M	L	ENERGY is continuing to engage with Hydro One and the Ontario Provincial Controller (OPCD) early to develop the funding mechanism and Trust. ENERGY is working to flow the funds to the Trust in advance of March 31, 2017.
The Auditor General may question the rush nature of this program in addition to the need for a Trust Account and why the Ministry is unable to deliver the program itself.	H	M	Explain that the Fund is part of the government's rate mitigation strategy, and intended to address an immediate need (getting customers on a more sustainable path with bills). ENERGY lacks the capacity to deliver the program itself. ENERGY will develop issues management materials to address these concerns.
Flowing the funds into an independent trust account allows for limited accountability, oversight and transparency provisions.	M	H	ENERGY has engaged with the Ontario Provincial Controller to seek their guidance on how to incorporate accountability, oversight and transparency provisions in the TPA. ENERGY will develop a TPA in-line with OPCD guidelines on accounting considerations for using government funded Trust Accounts.
Oversubscription of funds	M	M	Need for additional funding in future years can be evaluated based on customer needs.
Underspending of allocated funds	L	M	TPA will include the option to extend the original funding amount into future years. The Trust will also have the ability to extend funding as needed. To increase uptake for customers in need, LDCs will undertake targeted outreach.
Some entities, including LDCs who are not selected as parties to the TPA, may feel left out of the funding program or perceive the funding as inadequate.	M	L	Undertake consultations with LDCs and other stakeholders to provide input on allocation methodology. Prepare a robust communication plan to emphasize the scope and purpose of the Fund

From:	Bruno Amara
To:	John Kim
Cc:	Gavin He
Subject:	RE: Fair Hydro Plan
Date:	Thursday, April 06, 2017 6:42:02 PM

Hang on RRRP figures are quite the same as March 1, submission. Need to find out what the issue there is.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 6:32 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Hi

Take a look. This is from a late February TB note.

Bruno

From: John Kim
Sent: Thursday, April 06, 2017 6:08 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: Fair Hydro Plan

I am in transit but will take a look.

On Apr 6, 2017, at 6:00 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

> Hi,
>
> Can we respond?
>
> Ron
>
> Begin forwarded message:
>
> **From:** "Nguyen, Marianne (MOF)" <Marianne.Nguyen@ontario.ca>
> **Date:** April 6, 2017 at 5:57:43 PM EDT
> **To:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>, "Kwan, Ronald

(OFA)" <Ronald.Kwan@ofina.on.ca>
Cc: "He, Gavin (OFA)" <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Hi team,

I'm writing a one pager on the FHP. Is there a handy table somewhere of the fiscal impact, broken down by the different elements? I know that was in one of the decks we used to brief the Minister towards the end of February, but I want to ensure I have the most up to date one.

I would really appreciate if you could help me track this down ASAP.

Thanks,

Marianne Nguyen
Senior Policy Advisor
Office of the Honourable Charles Sousa
Minister of Finance

Office: 416-325-0007
Mobile: 416-562-4452
Email: marianne.nguyen@ontario.ca

From: Bruno Amara
To: John Kim; Emily Kerr
Cc: Gavin He
Subject: RE: Fair Hydro Plan
Date: Thursday, April 06, 2017 6:32:19 PM
Attachments: FHP programs.docx

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Take a look. This is from a late February TB note.

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From: John Kim
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To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
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SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	294	302	309	318
	Enhancement[2]	-	238	245	252	259
	TOTAL[2]	-	**532**	**547**	**561**	**577**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund		200	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**200**	**738**	**828**	**906**	**972**

1. Previously funded by the Rate Base.

Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet

From: Bruno Amara
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan
Date: Thursday, April 06, 2017 7:32:07 PM

Yes. I think that works better. I believe there is still report back for plans for the rest.

Bruno

From: Ronald Kwan
Sent: Thursday, April 06, 2017 7:29 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Fair Hydro Plan

Hi Bruno,

For sure, understood.

How about this?

Ron

From: Bruno Amara
Sent: April 6, 2017 7:26 PM
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan

Ron

The table sent previously I believe has more up-to-date figures than the placemat provided by Scott. The RRRP numbers were revised in the March 1 cab-sub. And as just noted $100m was approved for Affordability Fund.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:22 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>

Subject: RE: Fair Hydro Plan

Ron:

Emily is reminding me that Affordability Fund was eventually approved for $100m rather than $200m. In the attached I have revised and added a footnote.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: Bruno Amara
To: John Kim
Subject: RE: Follow-Up on the 2017 Budget - FAO
Date: Monday, May 01, 2017 10:33:13 AM
Attachments: image001.png

I think that covers it. OREC plus moving social programs to tax base.

From: John Kim
Sent: Monday, May 01, 2017 10:27 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Follow-Up on the 2017 Budget - FAO

I knew they missed the OREC.

From: Strang, James (TBS) [mailto:James.Strang@ontario.ca]
Sent: Monday, May 01, 2017 10:26 AM
To: John Kim <John.Kim@ofina.on.ca>; Chris Skubel (MGS) <Chris.Skubel@ontario.ca>
Subject: FW: Follow-Up on the 2017 Budget - FAO

Added OREC below.

From: Strang, James (TBS)
Sent: May 1, 2017 9:58 AM
To: Kim, John (OFA); Skubel, Chris (TBS)
Subject: FW: Follow-Up on the 2017 Budget - FAO

Hi John, do you have anything to add to the info below regarding Fair Hydro Plan appearing in the 2017 Budget (per the FAO request further down)?

James

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Where Interim 2016-17 Expense appears, it includes $100M for the Affordability Fund, $300M for the Ontario Rebate for Electricity Consumers. In table 6.15, both appear in the “Electricity Cost Relief Programs” line under ENERGY.

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From: Skubel, Chris (TBS)
Sent: May 1, 2017 9:26 AM
To: Strang, James (TBS)
Cc: Fung, Felix (TBS)
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Selena has also set up a meeting from 4-5 today to go over draft responses with a plan to have answers to the OFA tomorrow, so I apologize for the tight timelines.

Let me know if I can help.

Chris

From: Dutton, Andrea (TBS)
Sent: May-01-17 9:01 AM
To: Skubel, Chris (TBS); Komal, Indira (TBS)
Cc: Fung, Felix (TBS); Luk, Sandy (TBS); Parkash, Ruchi (TBS); Vovk, Igor (TBS)
Subject: FW: Follow-Up on the 2017 Budget

Please see below.

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April-29-17 12:46 PM
To: Dutton, Andrea (TBS)
Subject: RE: Follow-Up on the 2017 Budget

Hi Andrea,

Hope all's well.

On the FHP question, it identifies TBS PEMD. Could you share the draft response? We would like to keep our ADM and DM briefed on the response. If we could help out in any way, let me know as well.

Thanks,

John

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Friday, April 28, 2017 5:43 PM
To: Tim Cook (MOF) <Tim.Cook@ontario.ca>; Andrea Dutton (MOF) <Andrea.Dutton@ontario.ca>; Teuta Dodbiba (MOF) <Teuta.Dodbiba@ontario.ca>; Raj Sharda (MOHLTC) <Raj.Sharda@ontario.ca>; Dorothy Cheung (MCYS) <Dorothy.Cheung@ontario.ca>; Gladys Miu (MOI) <Gladys.Miu@ontario.ca>; Paul Lewis (MOF) <Paul.D.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Kostas Plainos (MOF) <Kostas.Plainos@ontario.ca>
Cc: Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>; Paul Ternamian (MOF) <Paul.Ternamian@ontario.ca>; Birks, Ryan (MOF) <Ryan.Birks@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Ghufran Tarin (MOF) <Ghufran.Tarin@ontario.ca>; Nina Arbabzadeh (EDU) <Nina.Arbabzadeh@ontario.ca>; Law, Rex (TBS) <Rex.Law@ontario.ca>; Patrick Laughton (MOF) <Patrick.Laughton@ontario.ca>; Patel, Lesley (MOF) <Lesley.Patel@ontario.ca>
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For reference I have attached an excerpt from our protocol for interaction with the FAO in case folks need a refresher on what information can/cannot be shared. We can discuss further on Monday at our call/meeting.

Thanks and pls let me know if you have any questions.

From: David West [mailto:dwest@fao-on.org]
Sent: April-28-17 9:32 AM
To: Schuurman, Tim (MOF); Hughes, Karen (TBS); Lewis, Brian (MOF); Veinot, Cindy (TBS)
Cc: Tarin, Ghufran (MOF); Birks, Ryan (MOF); Laughton, Patrick (TBS); Hosick, Sarah (TBS); Luan Ngo; Edward Crummey; Mario Angastiniotis; Nicolas Rhodes
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3. As detailed in the letter and background documents sent to Deputies Thompson and Angus on April 3, we are requesting pension expense and employer contribution details for the OTPP and OPSEUPP.- **TBS-OPCD**

We would also appreciate a meeting early next week (preferably Tuesday afternoon) to allow you to respond to a number of questions that we have with regard to the 2017 Budget.

We'll provide a list of specific questions later this afternoon, but these questions will cover a number of areas, including:

- Clarification on where the Fair Hydro Plan appears in the expenses **– CEFD/ TBS - PEMD**
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- Additional details/clarification on new infrastructure spending **TBS CPD**

- Assumptions behind the plan to reduce net debt-to-GDP to 35% and eventually to 27%. **OFA**

We'll provide a list later this afternoon that expands somewhat on these question topics.

Happy to discuss any of these requests.

Thanks again for your support,
David

David West
Chief Economist

Financial Accountability Office of Ontario

2 Bloor Street W, Suite 900, Toronto, Ontario M4W 3E2
t.416.579.1465 | dwest@fao-on.org
www.fao-on.org[fao-on.org]

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FAO
Financial
Accountability
Office of Ontario

From:	Shajee Kathirgamanathan
To:	John Kim; Bruno Amara
Subject:	RE: Follow-Up on the 2017 Budget - FAO
Date:	Monday, May 01, 2017 4:25:46 PM
Attachments:	2017-03-01 - Cabinet Submission - Electricity Price Mitigation - TEXT.pdf image001.png

Yes, we saw numbers for to 2020-21 for RRRP Enhancement, OESP, On-Reserve First Nations Delivery Credit.

Please see slide 66 of attached.

Note: The affordability fund was $200M for 2016-17 from the Cab Sub, but only 100M was approved in that fiscal year.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, May 01, 2017 4:03 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: FW: Follow-Up on the 2017 Budget - FAO

I'm in a call on the FAO Qs but did we see the 2018-19 onward figures for FHP?

From: Strang, James (TBS) [mailto:James.Strang@ontario.ca]
Sent: Monday, May 01, 2017 3:48 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Chris Skubel (MGS) <Chris.Skubel@ontario.ca>
Subject: FW: Follow-Up on the 2017 Budget - FAO

Thanks John, I was also sent the attached bulk FAO Qs. I've responded to FHP ones as well, and flag for you a Q related to $1B sales and rental increase.

James

From: Strang, James (TBS)
Sent: May 1, 2017 10:26 AM
To: Kim, John (OFA); Skubel, Chris (TBS)
Subject: FW: Follow-Up on the 2017 Budget - FAO

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- Additional details/clarification on new infrastructure spending **TBS CPD**
- Assumptions behind the plan to reduce net debt-to-GDP to 35% and eventually to 27%. **OFA**

We'll provide a list later this afternoon that expands somewhat on these question topics.

Happy to discuss any of these requests.

Thanks again for your support,
David

David West
Chief Economist

Financial Accountability Office of Ontario

2 Bloor Street W, Suite 900, Toronto, Ontario M4W 3E2
t.416.579.1465 | dwest@fao-on.org
www.fao-on.org[fao-on.org]

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Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

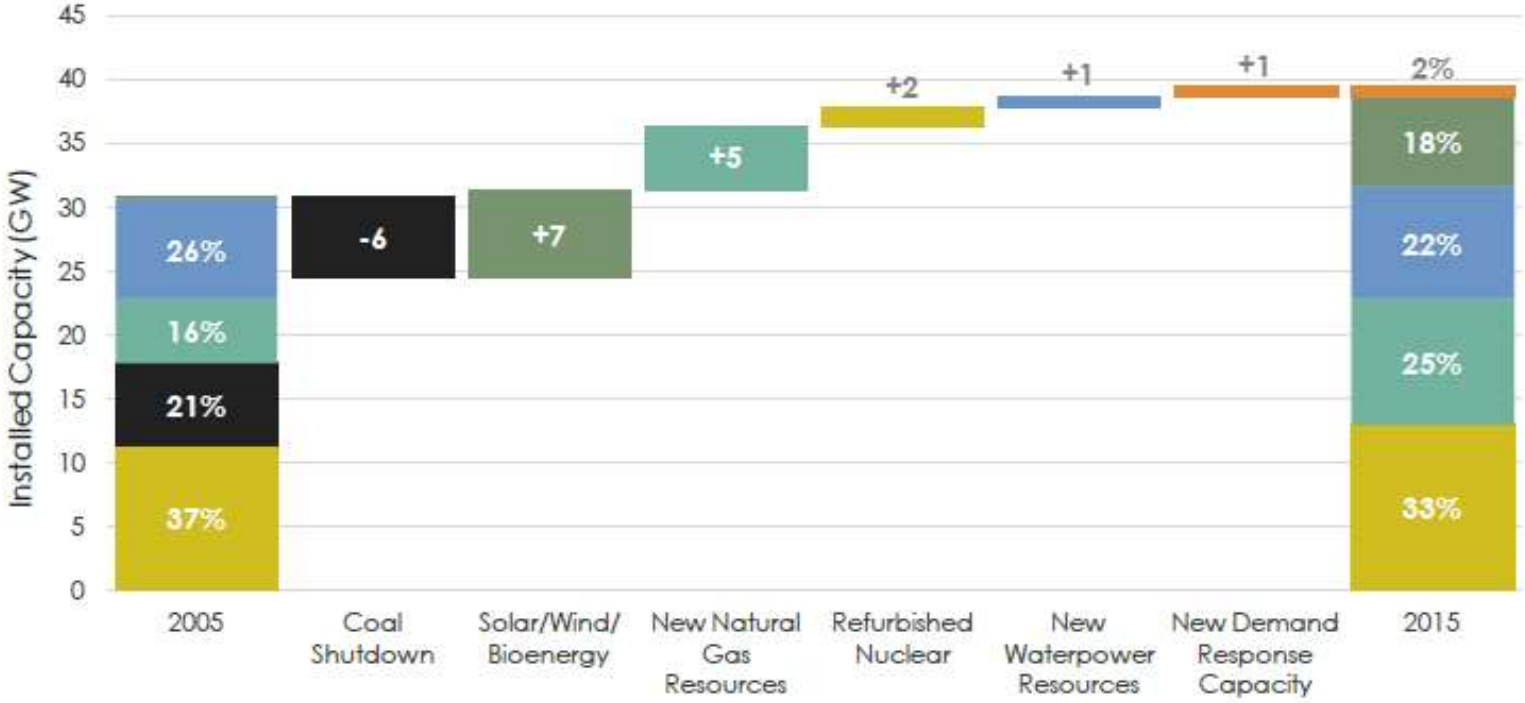
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



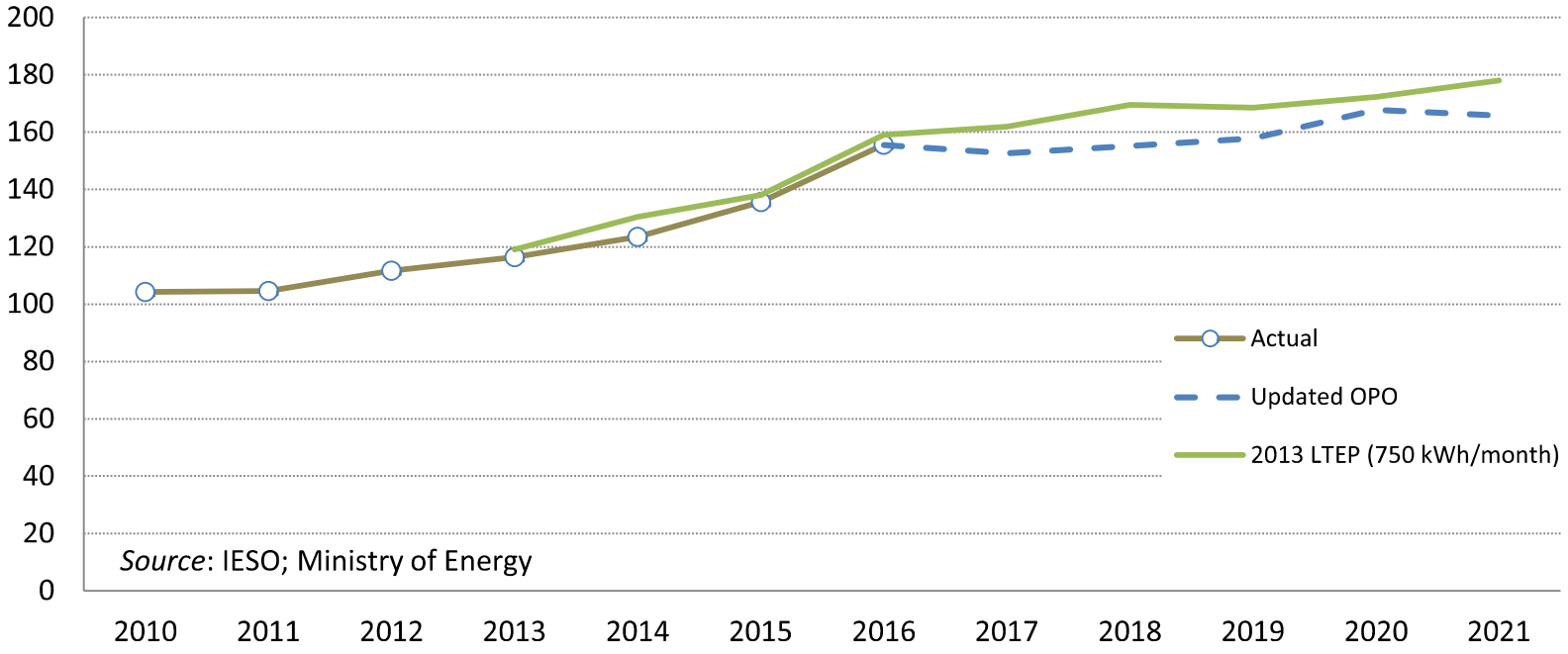
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

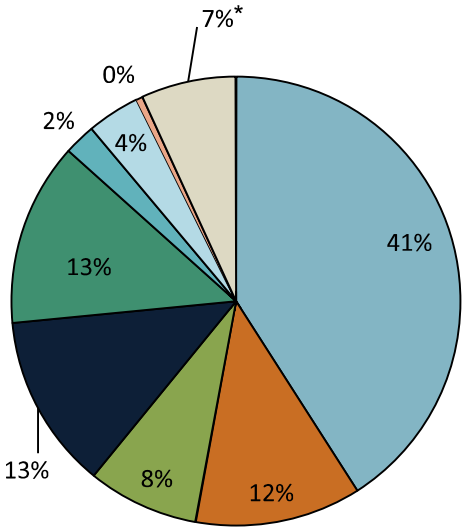
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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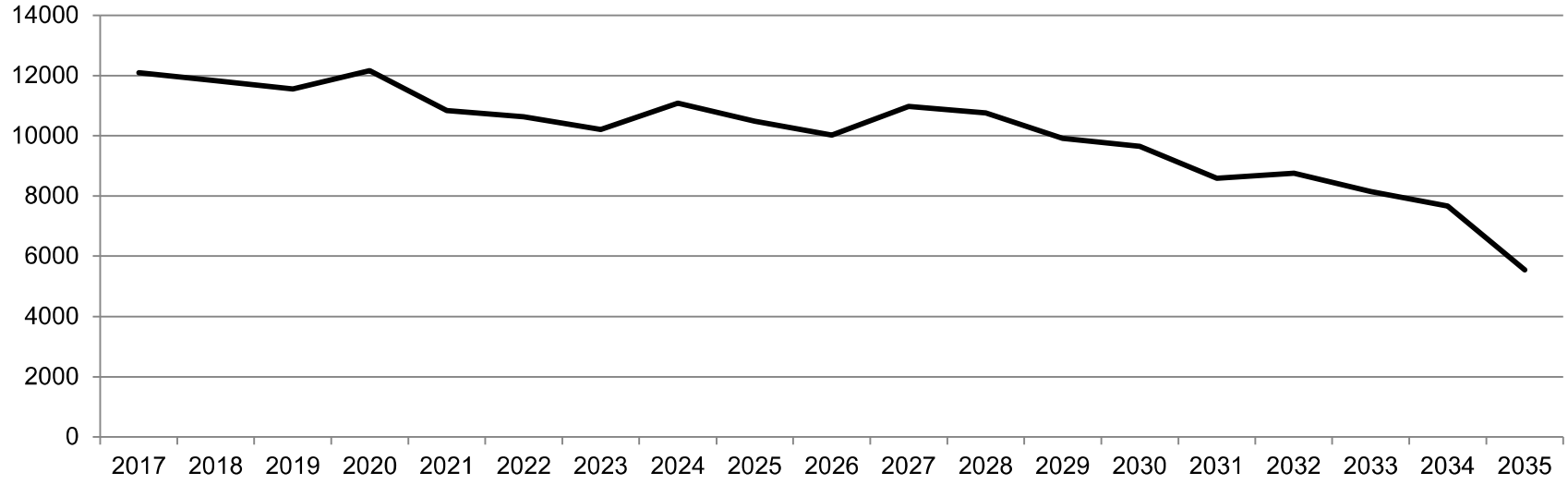
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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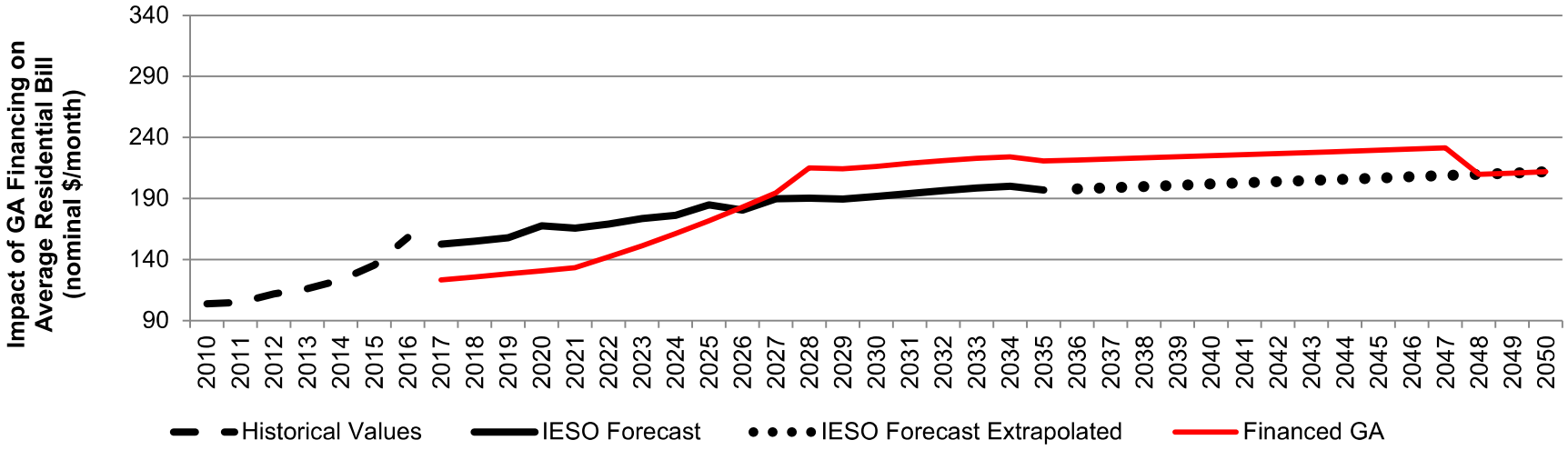
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

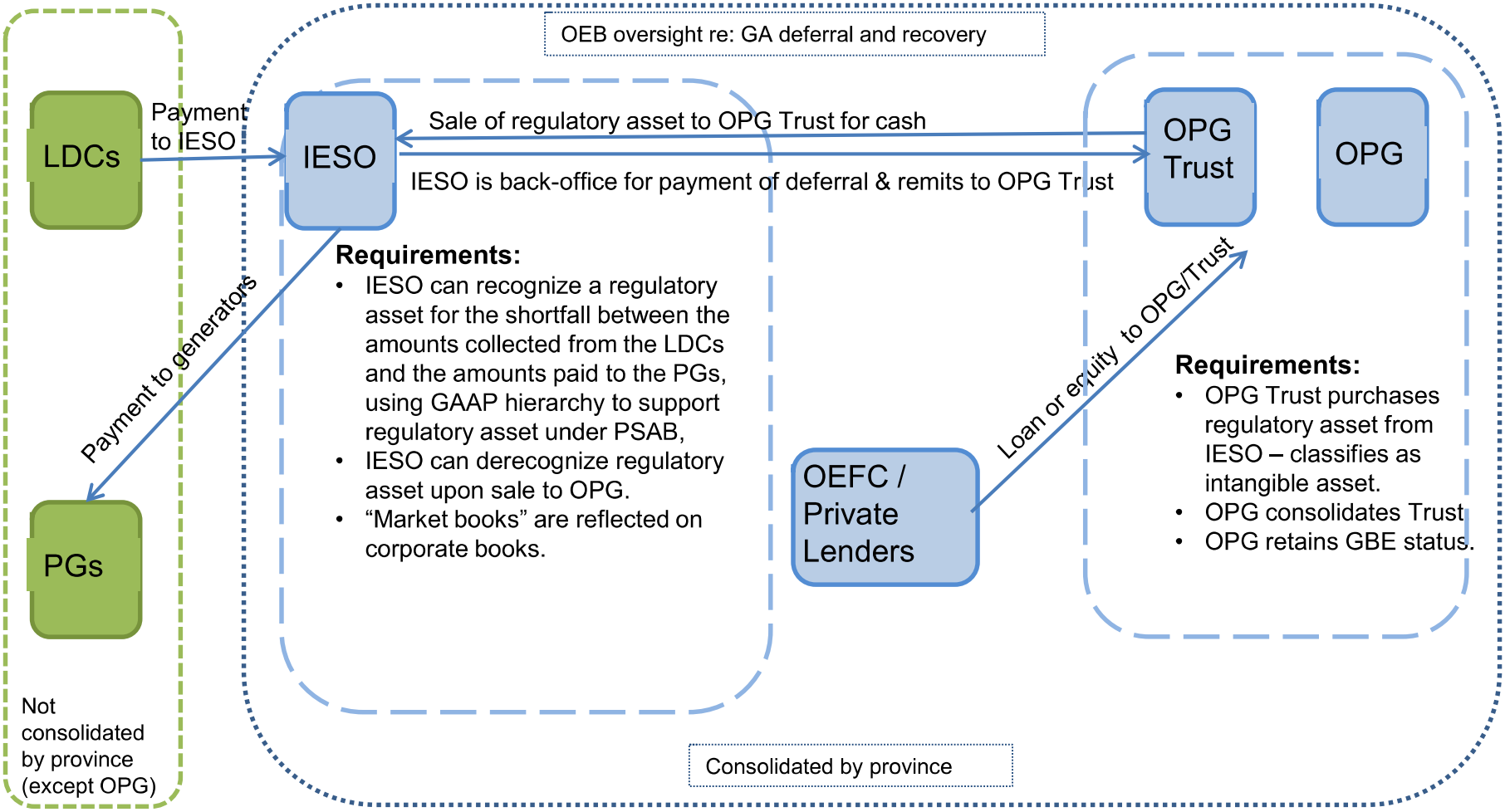
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

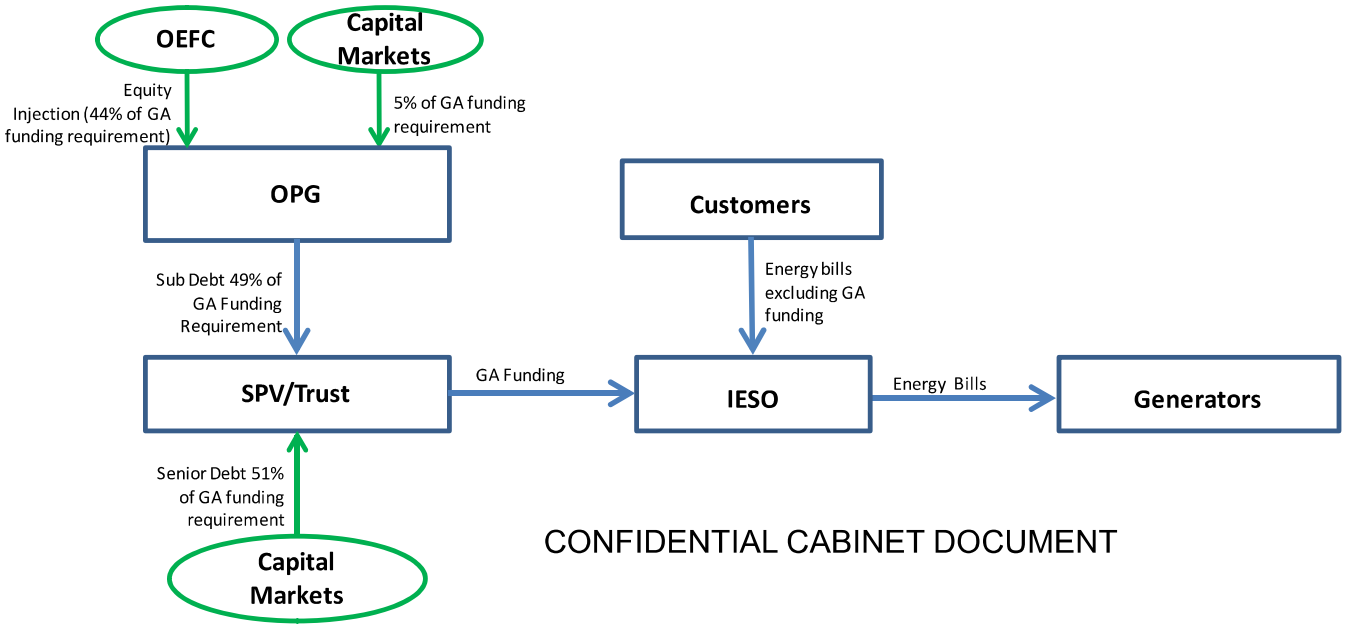
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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Ontario

GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

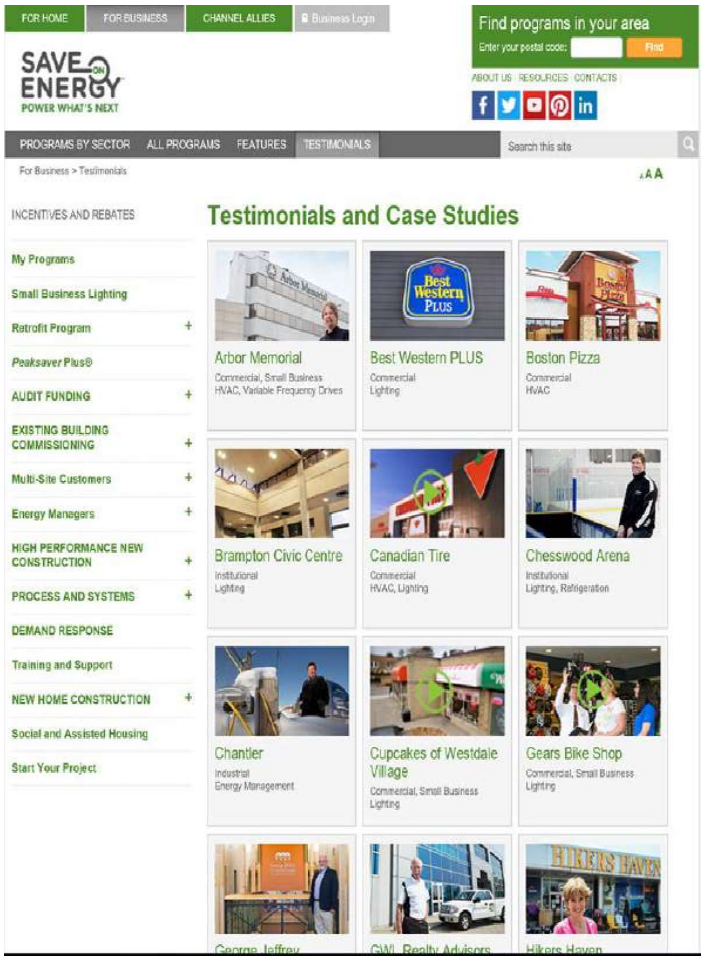
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



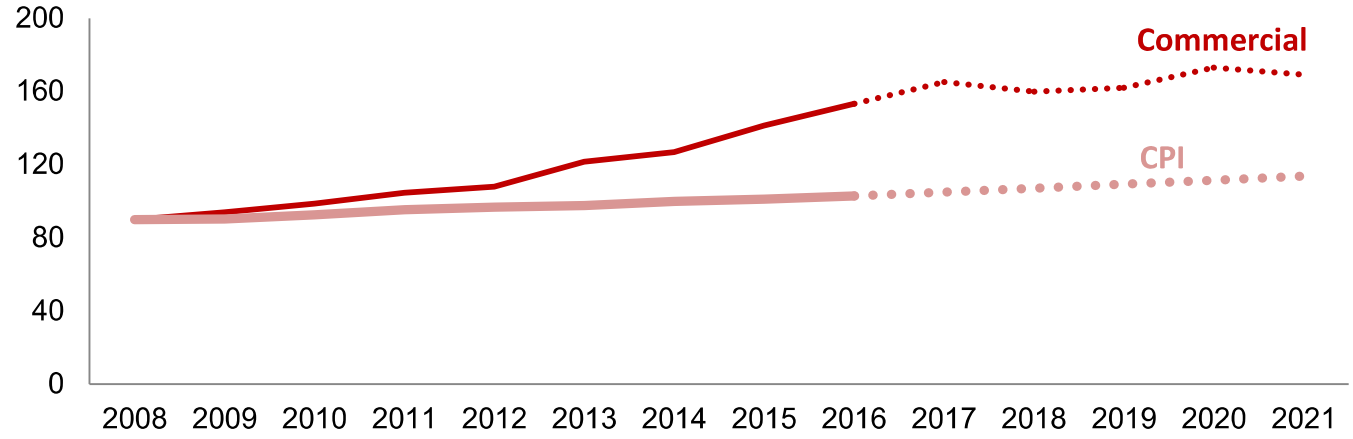
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

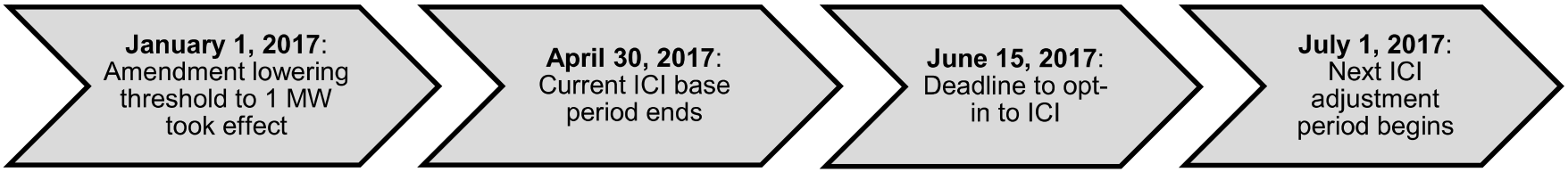
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

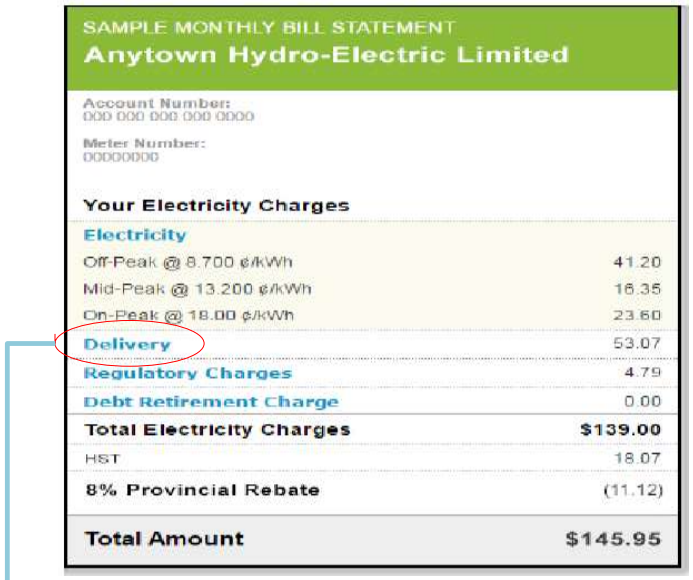
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

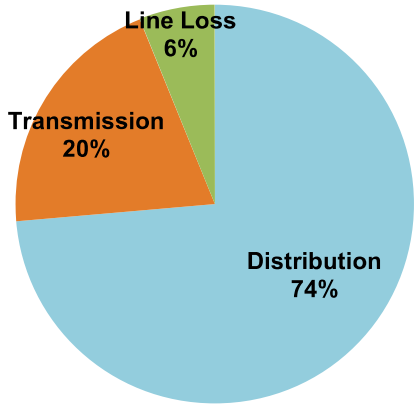
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

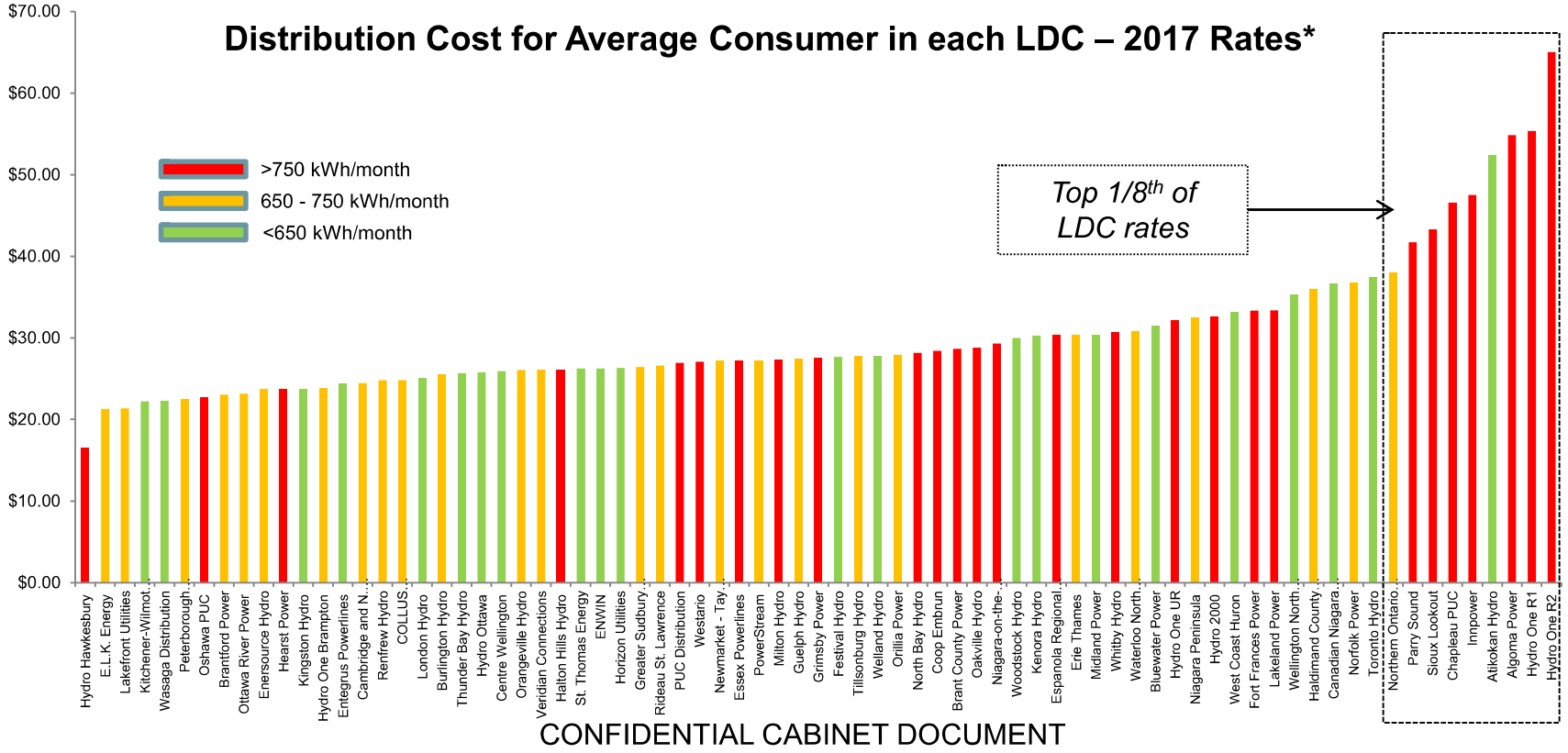
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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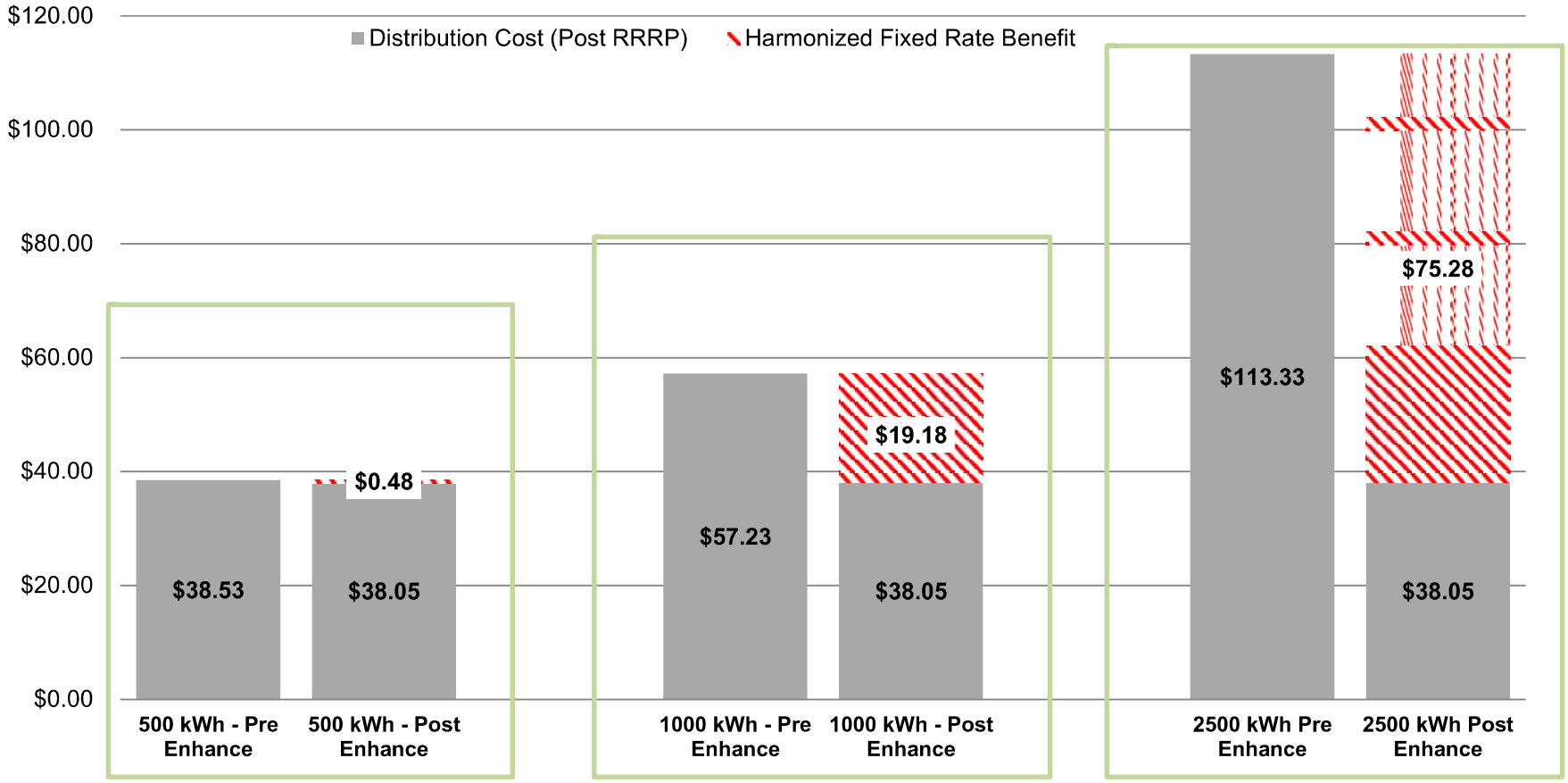
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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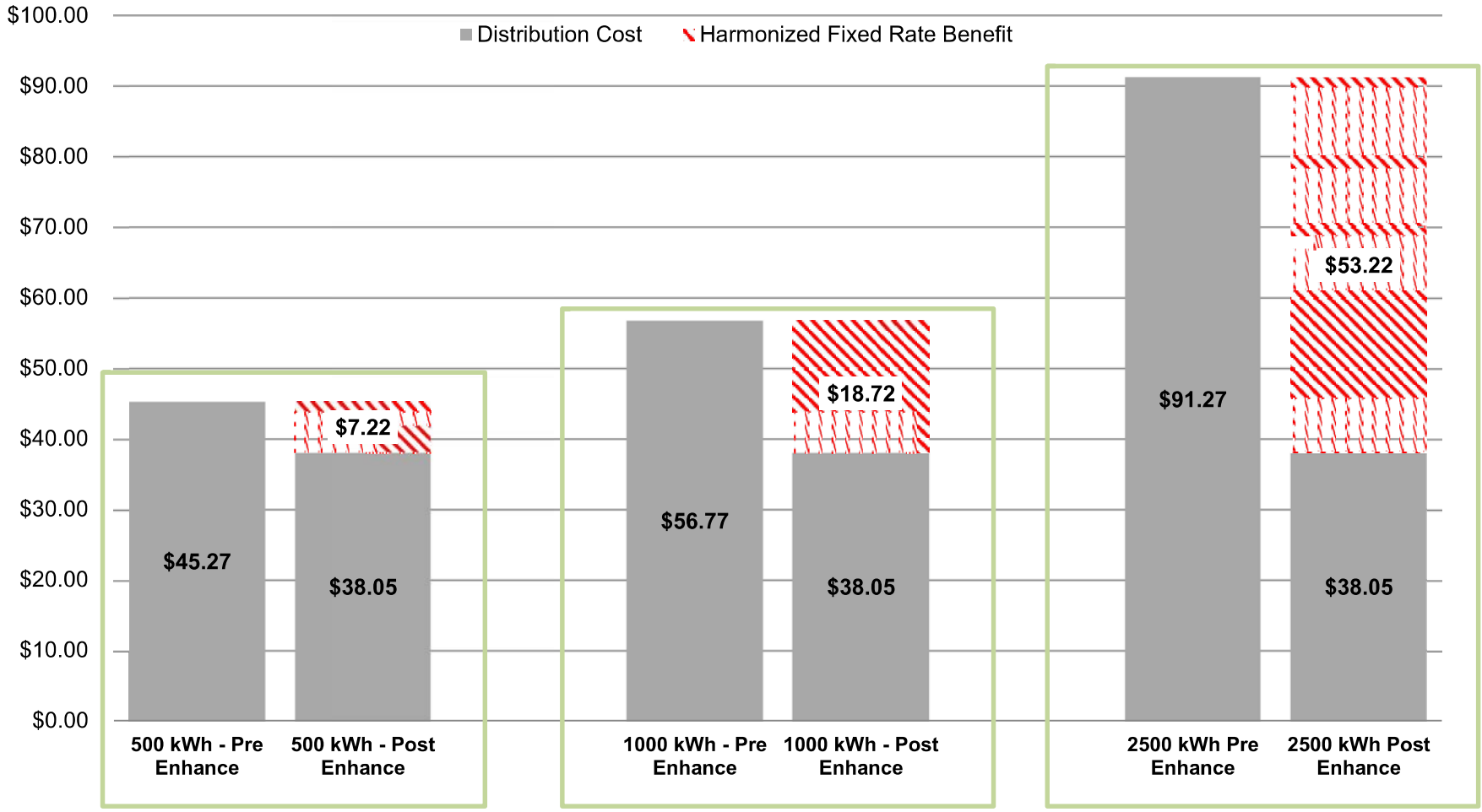
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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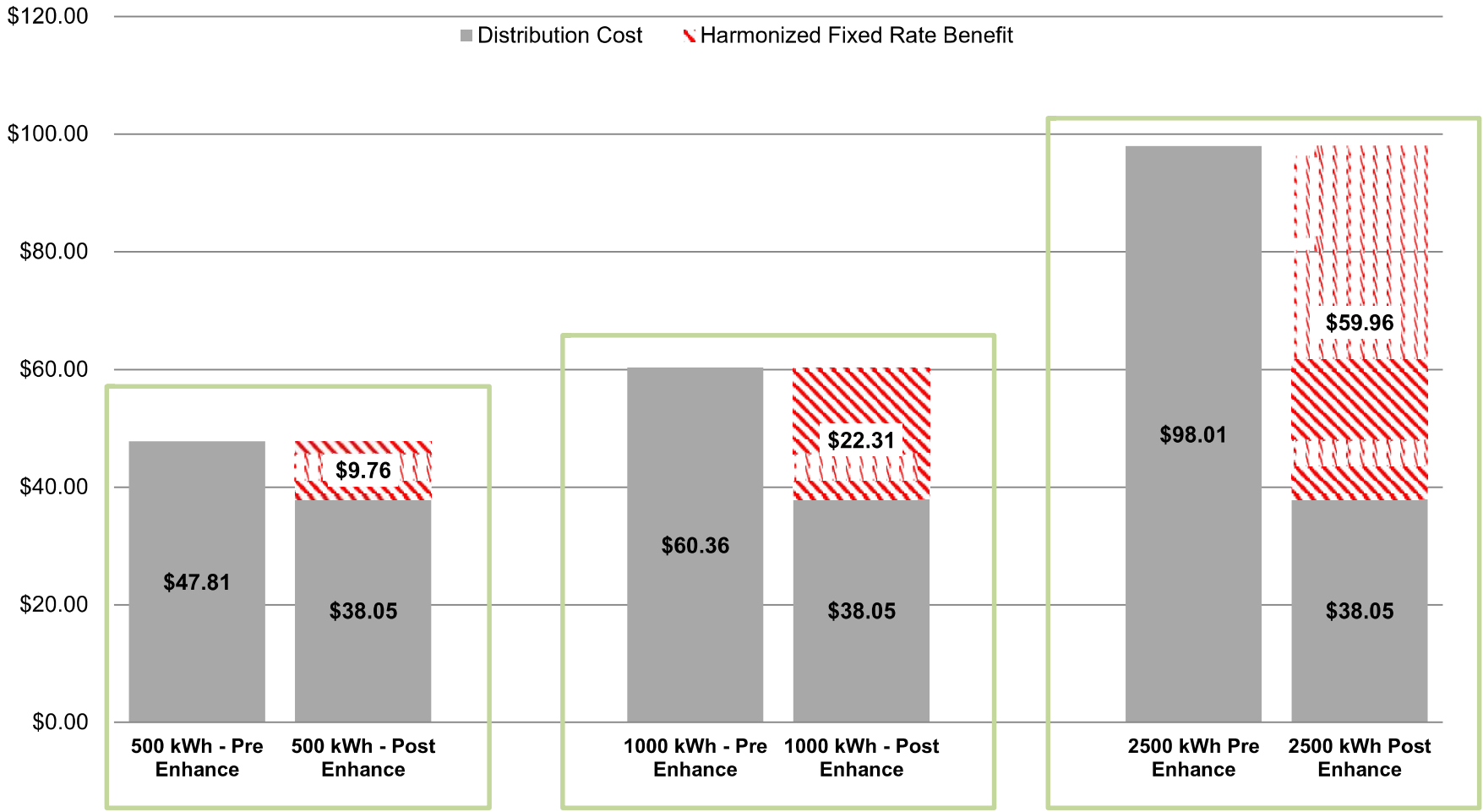
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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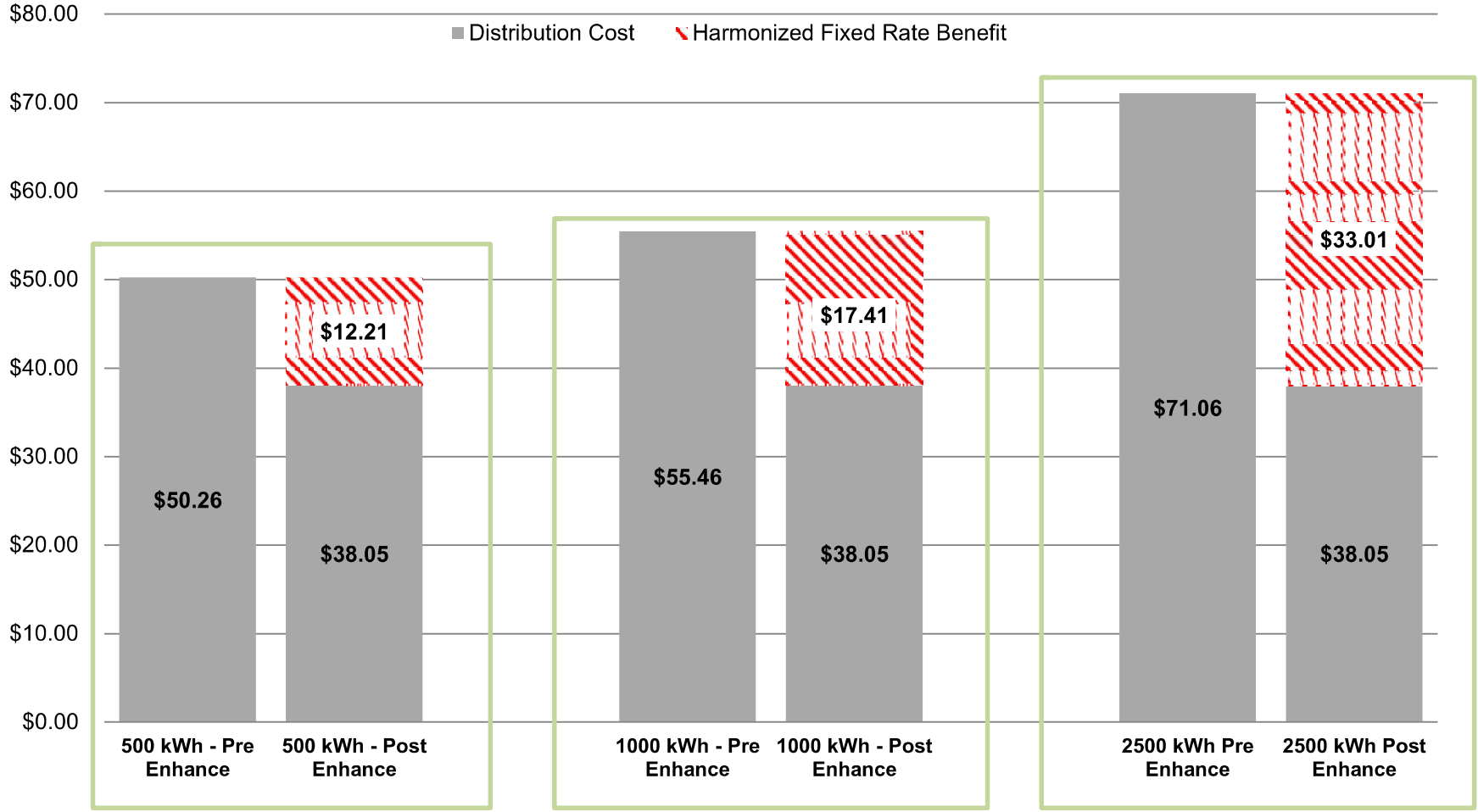
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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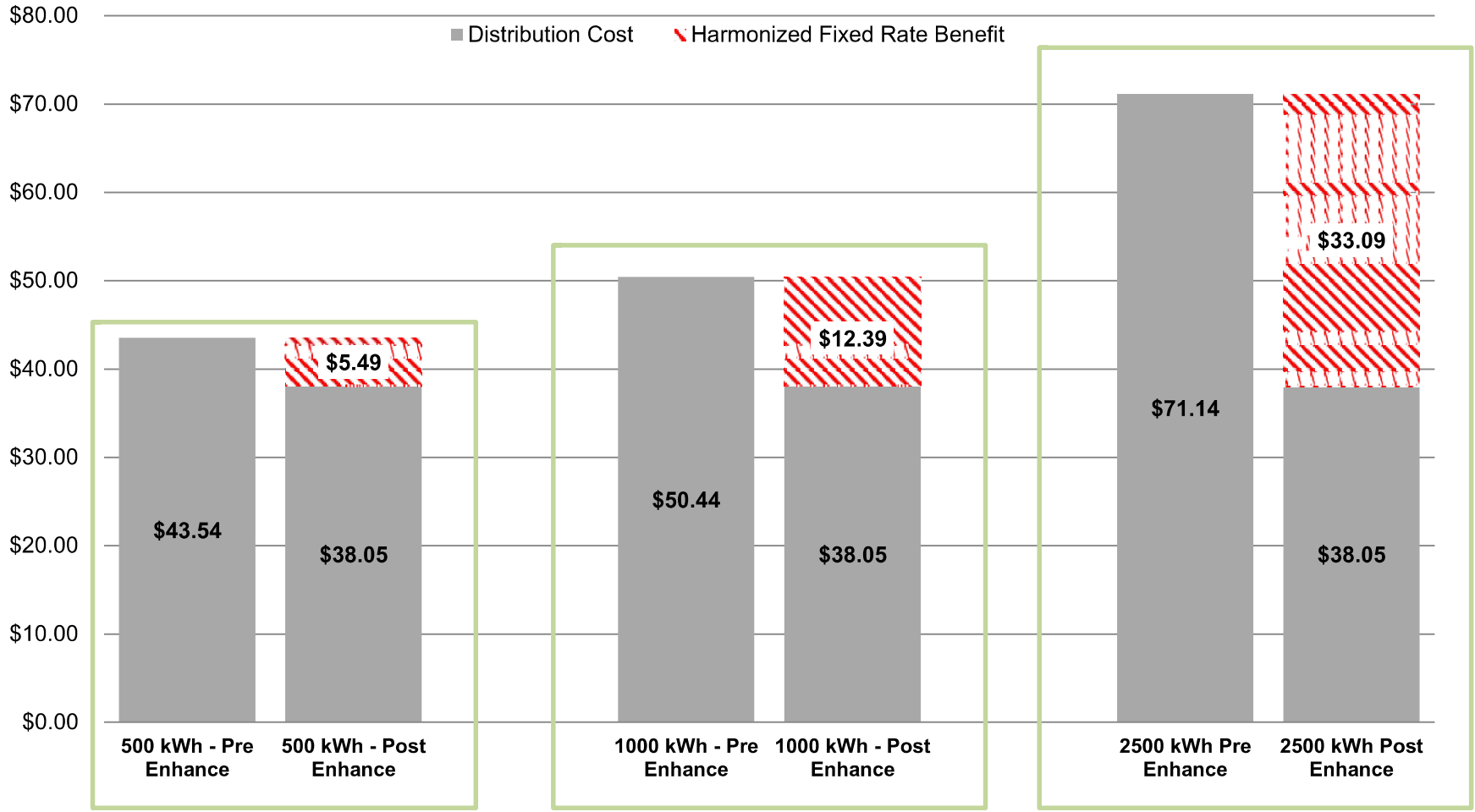
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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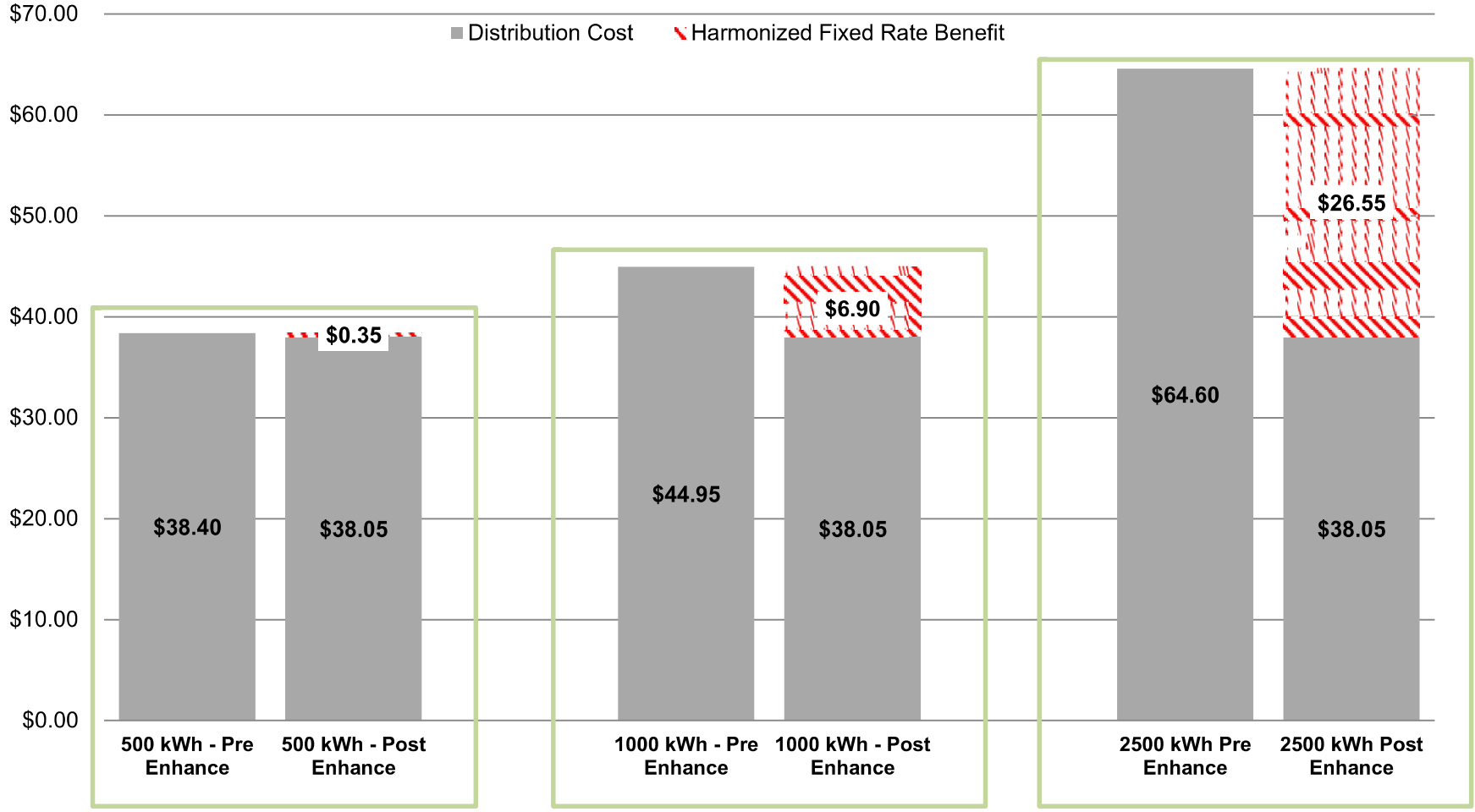
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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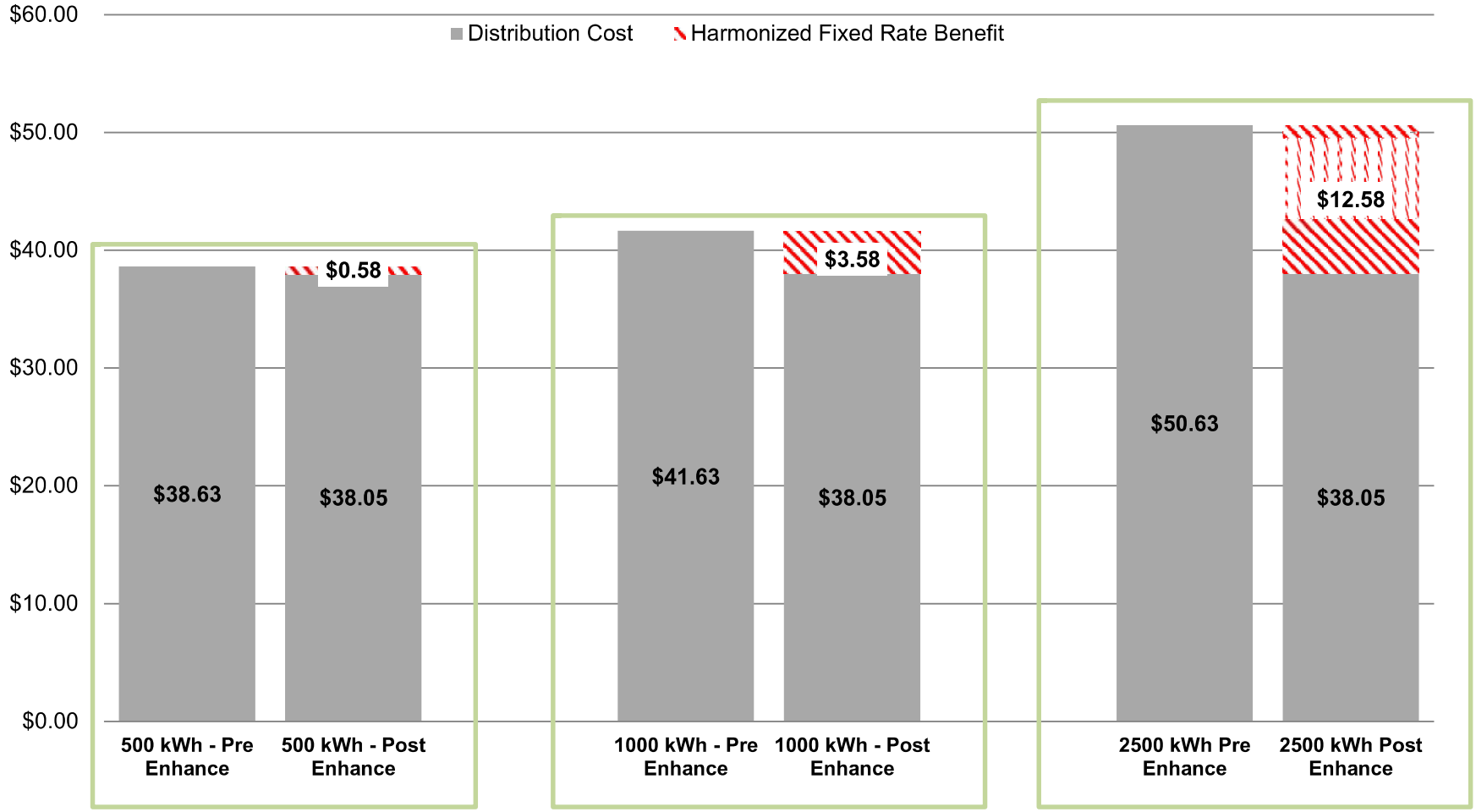
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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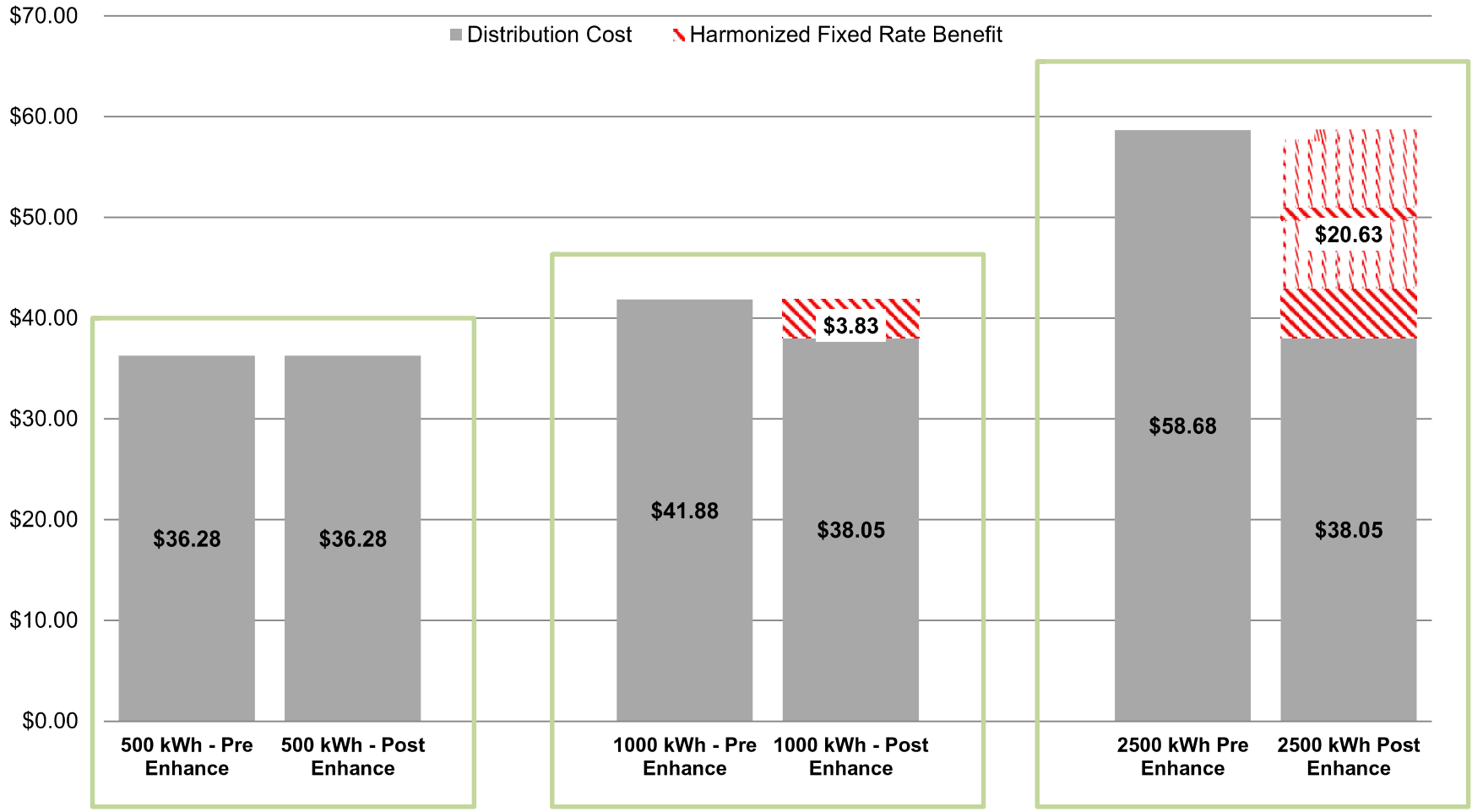
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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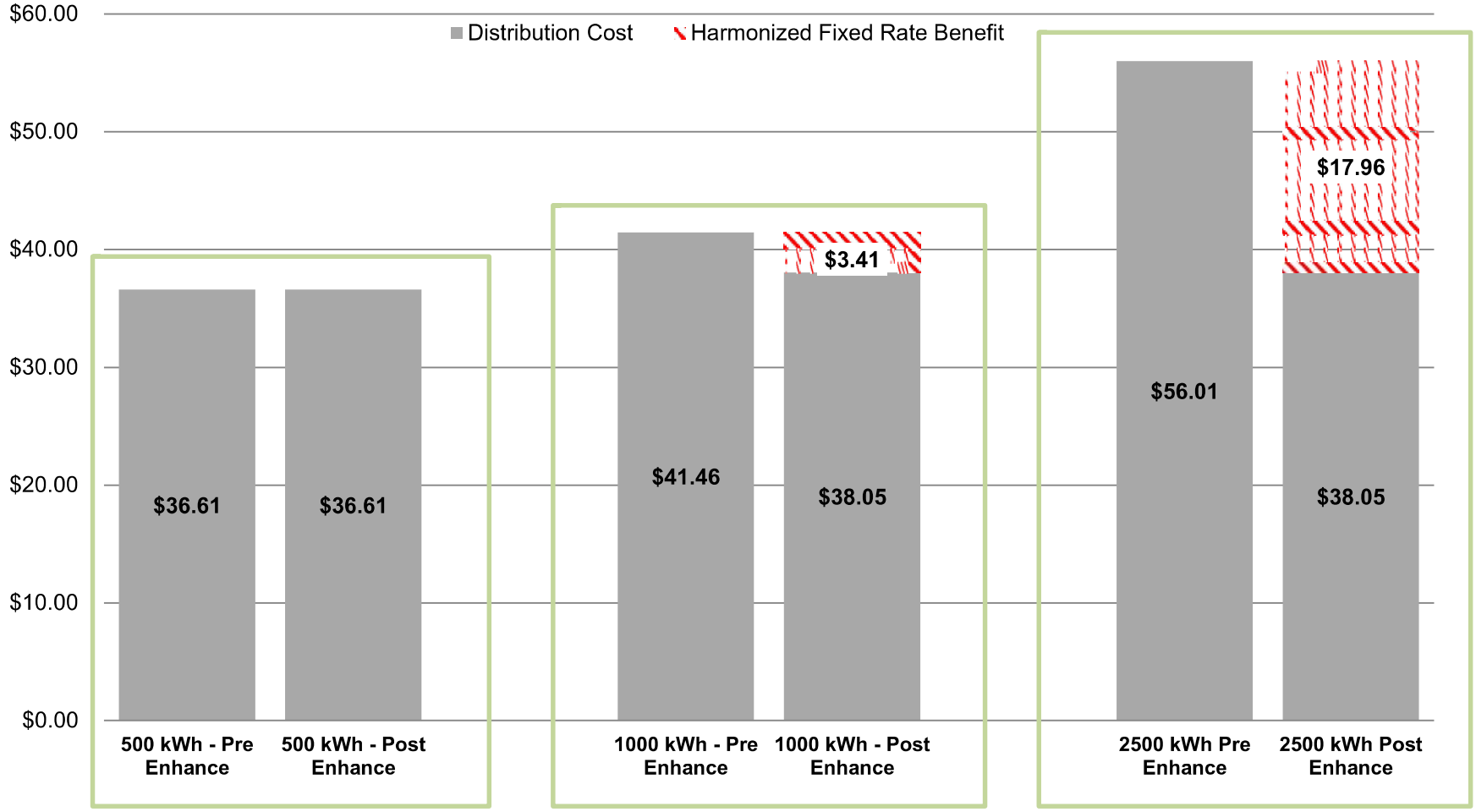
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

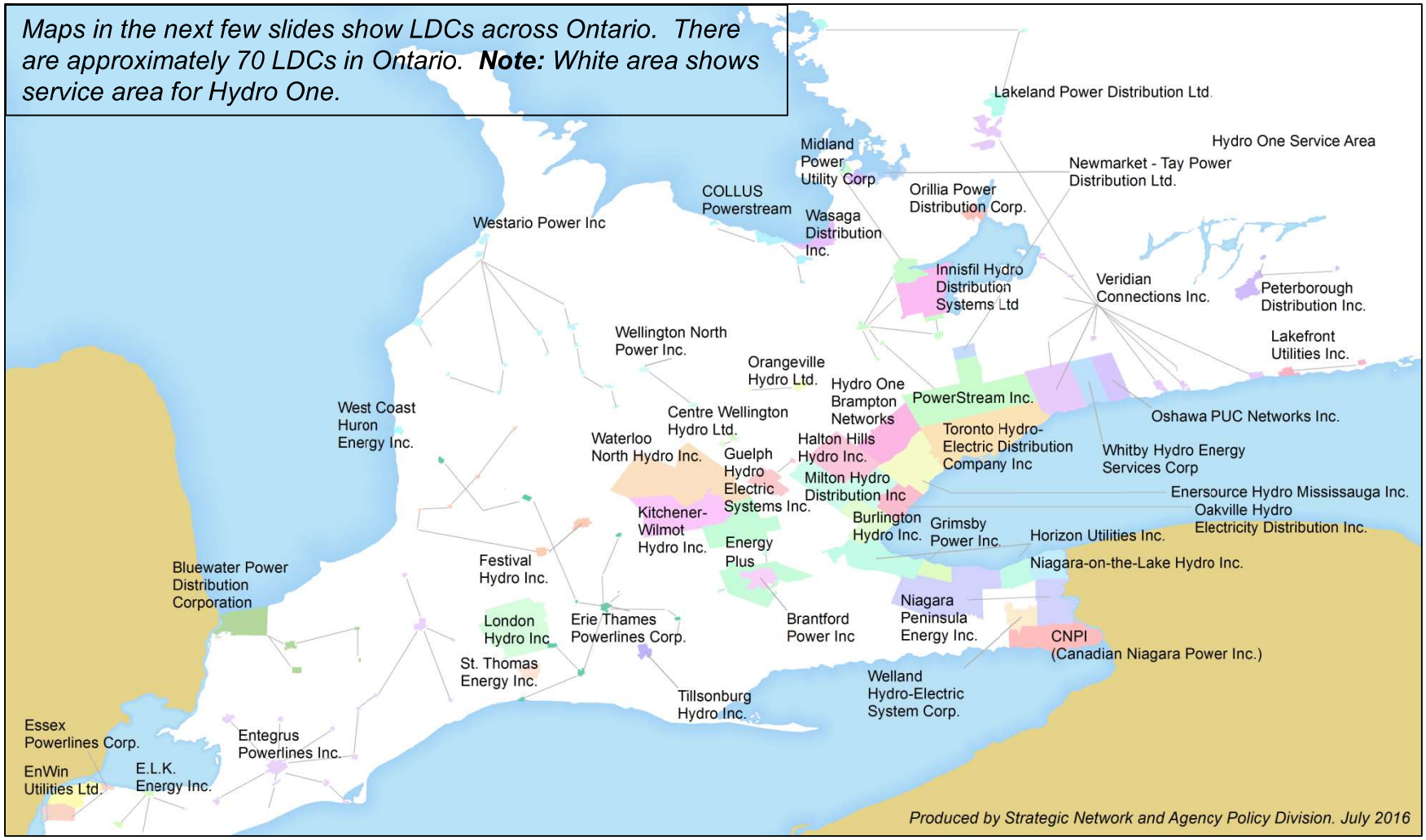
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

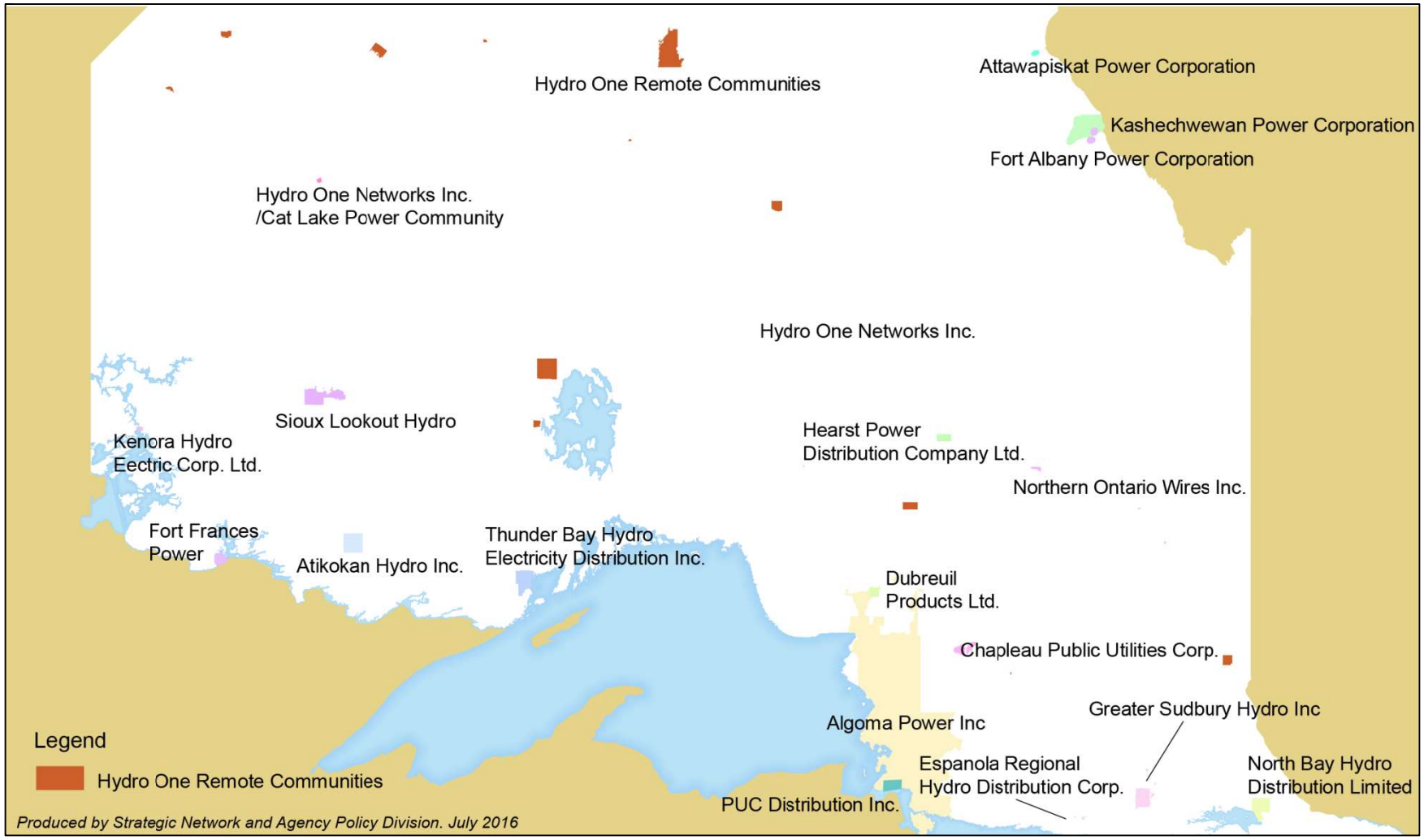
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

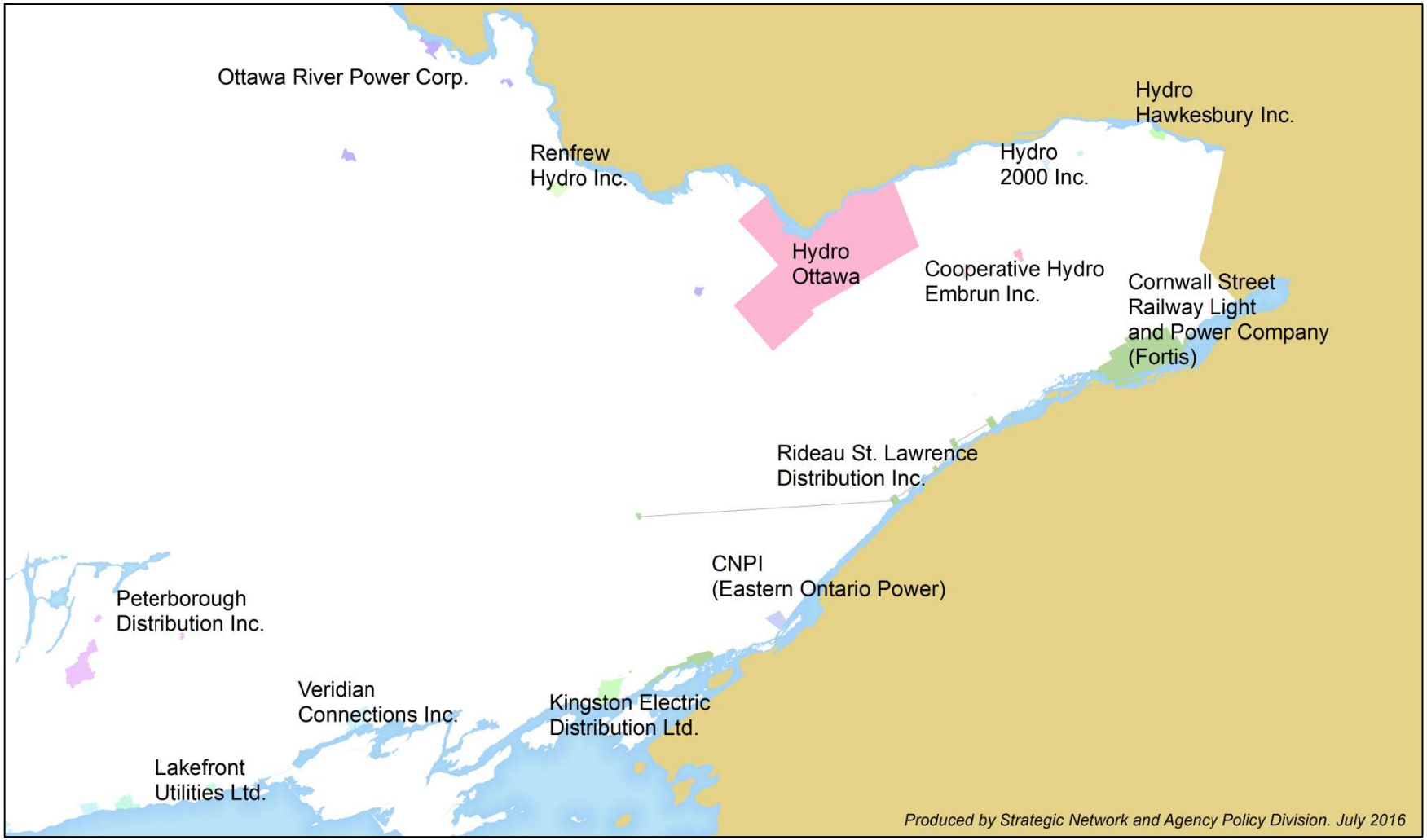
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

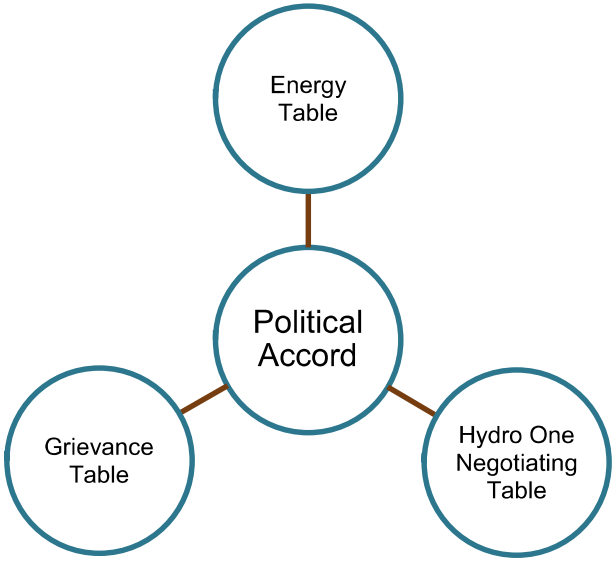
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

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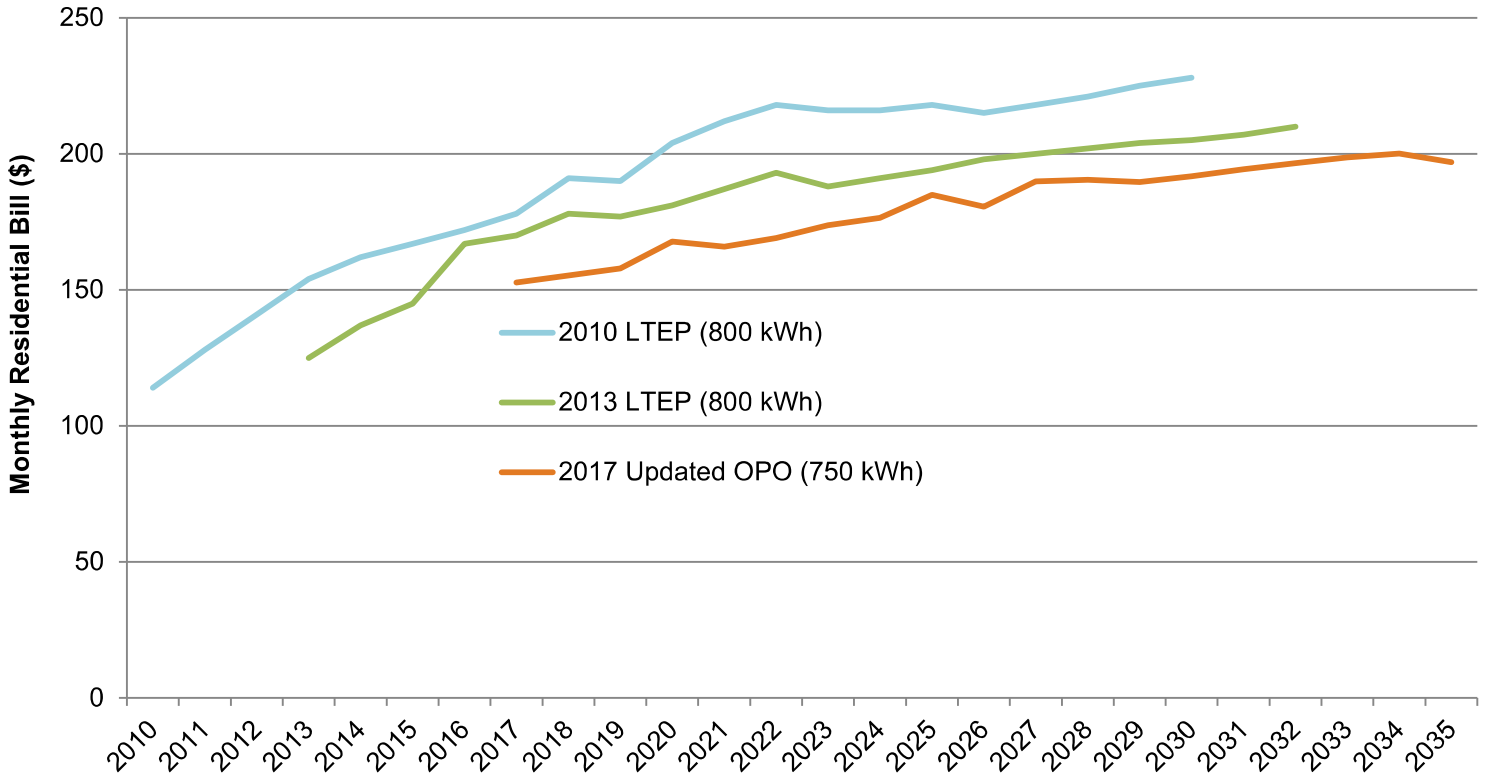
Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

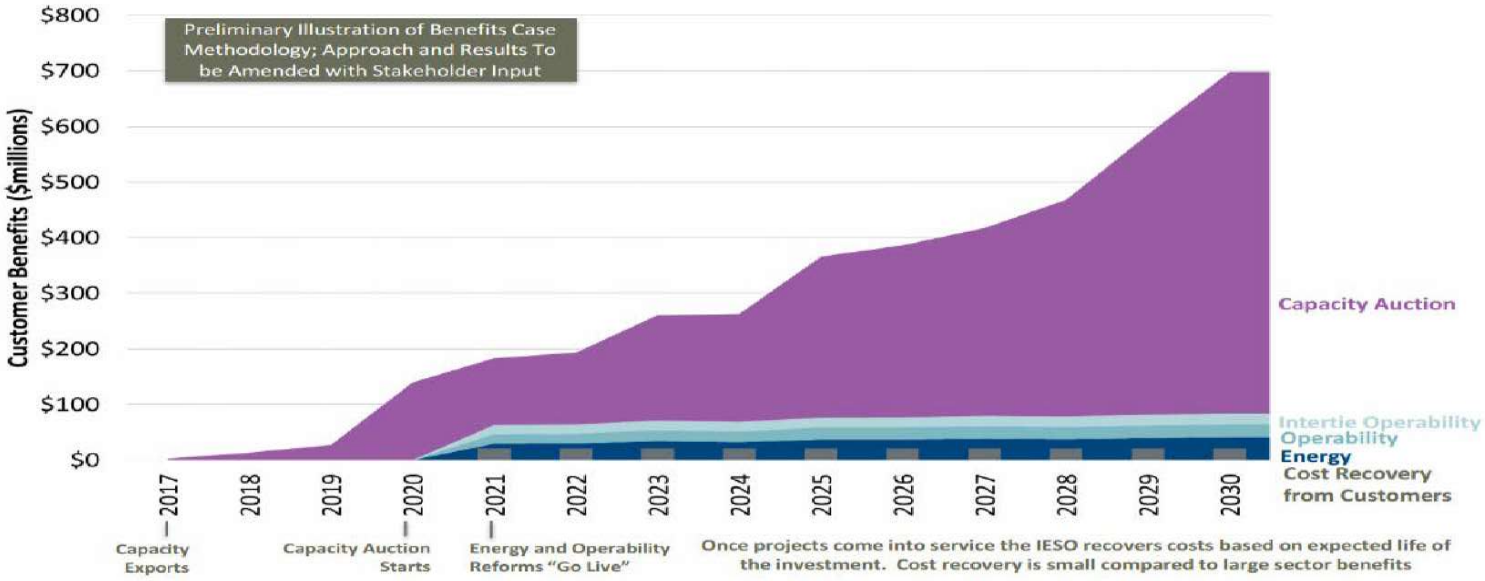
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

FAO
Financial
Accountability
Office of Ontario

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim
Subject: RE: For DM Briefing.docx
Date: Tuesday, March 28, 2017 12:38:12 PM
Attachments: For DM Briefing_Markup.docx

Thanks Bruno,

A few small suggestions.

Also, would you check with Daniel in OB on whether and whom in MOF Legal or the FOI office might be helpful to loop in to ensure we are responding properly.

Ron

From: Bruno Amara
Sent: March-28-17 12:24
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: For DM Briefing.docx

Ron/John

Thinking of using this 2-pager, just to have something to speak to an put in front of Deputy. It is the high level summary. Let me know if you are OK with this approach.

Thanks
Bruno

Financial Accountability Office of Ontario

Question on The Financial Impact of Ontario's Fair Hydro Plan

- FAO questions are largely seeking background data and information on ~~which~~the Ontario's Fair Hydro Plan (OFHP) ~~is based~~. This includes~~,~~
  - Projected costs of electricity over 2017 – 2048 period – Status Qu~~e~~o vs. OFHP
  - Projected Global adjustment deferral and repayment schedule 2017-20~~1~~48
  - Costs projections for other OFHP programs 2017-18 to 20~~1~~47-48
    - Details on customers affected
  - Information on IESO Market Renewal Initiative and OEB efficiency initiatives
  - Explanation of financial impact of using OPG to conduct financing operations rather than OEFC
    - ~~o~~ This last question is an "options" question, so the response is limited

- Ministry of Energy and Ministry of Finance are largely responsive to FAO questions
  - ENE provides supporting data, where available, including IESO electricity costs forecast, market data from OEB (including Local Distribution Company summary data) and Hydro One market data.
  - Much of the data was included in or underlay Energy's cabinet submission

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Financial Accountability Office of Ontario
Question on The Financial Impact of Ontario's Fair Hydro Plan

- Main areas where ENE/MOF do not provide response to FAO questions:
  - Request for long term cost estimates to 2047 for OFHP programs. ENE provides cost estimates to 2020-21 for these, per information provided in cabinet submission
  - Two questions had limited responses as responsive records are not authorized to be released under records OC 1412/2016
    - Information requested on Affordability Fund cash payments. ENE identifies a TB/MBC cabinet submission as Affordability Fund as unauthorized for release
    - FAO question 6 asks for explanation of financial impact of using OPG rather than OEFC to conduct financing operations. MoF (CEFD) does not provide an OPG vs~~the~~ OEFC comparison as OC 1412/2016 prohibits sharing of policy or costing options or recommendations, with FAO, unless the option or recommendation was selected by Cabinet or one of its committees. FAO is provided with a GA financing table and interest rate sensitivity analysis done by OFA/CEFD staff (only record being provided by MOF).

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From: Salman Qadir
To: Bruno Amara
Cc: John Kim
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx
Date: Friday, April 28, 2017 2:30:52 PM

Hi Bruno,

No issues with the changes.

One point we should make is the uncertainty, if at all, around IESO having the regulatory asset and whether upon consolidation with the Province, if it will get derecognized. It is TBC, so may not need to be the slide then but just making sure its not overlooked (unless Ron has confirmation to say otherwise…).

"*Potential for Fiscal Impact of de-recognition of Regulatory Asset held by IESO upon consolidation – TBC*"

The other point might be around the proposed Guarantee Agreement and risks around how that plays out – or just saying it is being contemplated. At the moment, I don't know if Energy's deck speaks to any guarantee being provided.

Salman

From: Bruno Amara
Sent: Friday, April 28, 2017 2:14 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Salman

Could we both review Ron's edits. Than I can respond to him.

Thanks

From: Ronald Kwan
Sent: Friday, April 28, 2017 2:11 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Bruno,

I had been thinking, to make it easier for Energy, to simply work with their version of the flow chart

from the March CabSub.

That said, their version may have been updated since then anyways, but they could take out suggestions in.

I also added reworked some parts of the text slide, and dropped some detail, as it was rather dense – may still be!

Thanks,
Ron

From: Bruno Amara
Sent: April-28-17 11:28
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: FW: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Ron

Attached are the updated slides per you request.

Thanks
Bruno

From: Ronald Kwan
To: John Kim
Cc: Bruno Amara; Salman Qadir; Gavin He; Deena Padamadan
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx
Date: Monday, May 01, 2017 6:21:07 PM
Attachments: GA - IESO Role and Financing v4 - extract v9_Markup2.pptx

---

Hi John,

How about this?

Ron

From: John Kim
Sent: May-01-17 17:42
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Deena Padamadan <Deena.Padamadan@ofina.on.ca>
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Ron,

Some edits. As discussed, I am not sure if we can say definitively what OPG Trust is expected to do.

John

From: Ronald Kwan
Sent: Friday, April 28, 2017 3:18 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx

Thanks Bruno.

I changed it to Energy's PW.

Ron

From: Bruno Amara
Sent: April-28-17 15:14
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Ron

We're fine with additional edits. See attached.

Thanks
Bruno

From: Ronald Kwan
Sent: Friday, April 28, 2017 2:53 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx

Hi,

I made a few more edits.

Ron

From: Ronald Kwan
Sent: April-28-17 14:11
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: GA - IESO Role and Financing v4 - extract v6.pptx

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To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>

Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: FW: GA - IESO Role and Financing v4 - extract v6.pptx

Hi Ron

Attached are the updated slides per you request.

Thanks
Bruno

DRAFT

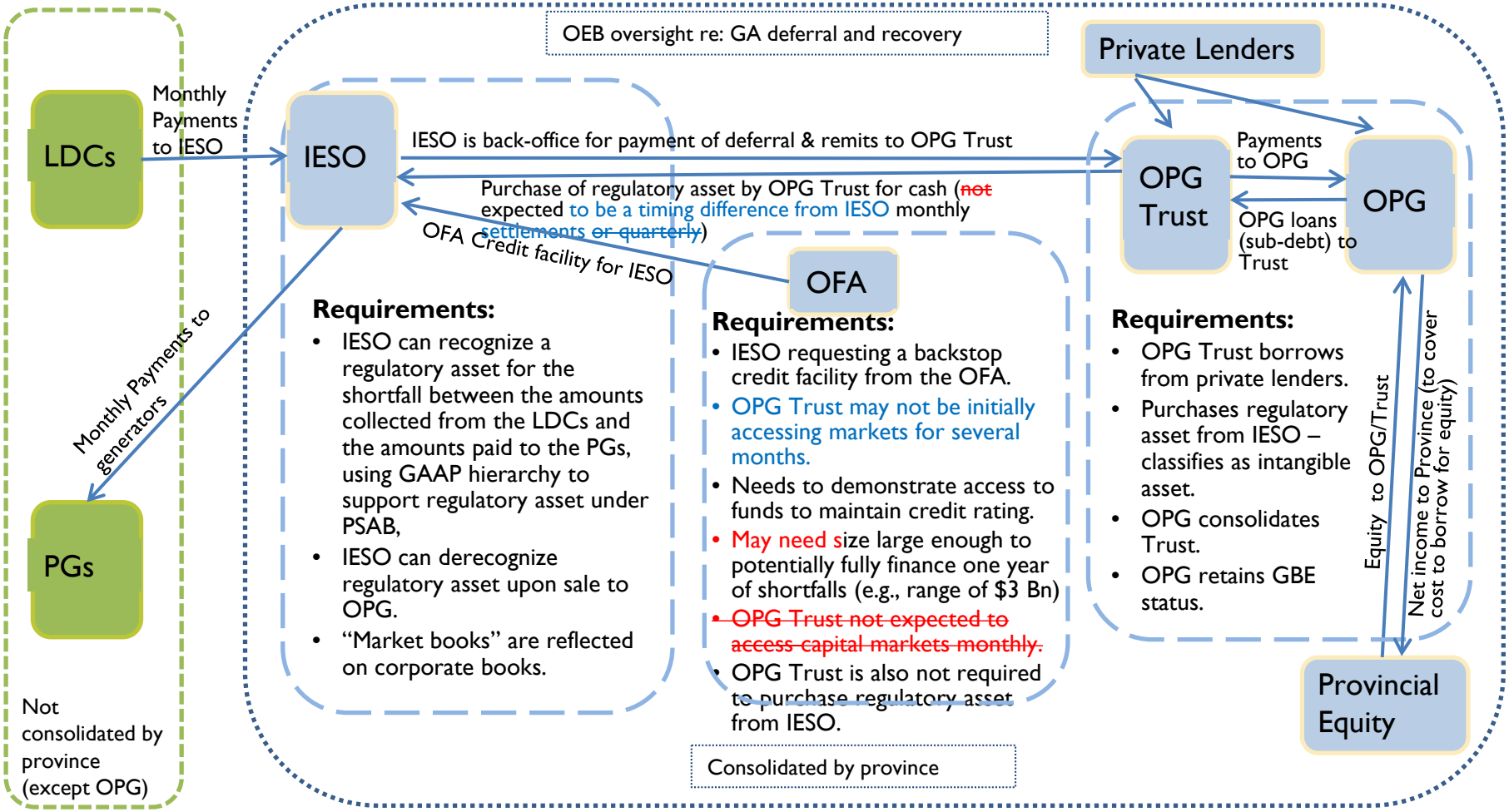
GA Financing Plan: Role of IESO

Corporate and Electricity Finance Division
April 28, 2017

DRAFT

GA Smoothing – Proposed Structure

- The following diagram provides an overview of the proposed GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

DRAFT

IESO Financing Requirements

- IESO will need to ensure that it continues to have the funds available to provide payments to generators on a monthly basis as part of the IESO settlements process, while recoveries from LDCs for Regulated Price Plan (RPP) / Fair Hydro Plan eligible customers will be lower.
- IESO has an existing credit facility from the OFA; however, a new or expanded facility is being requested.
- IESO would require financing to compensate generators should it be required to hold any portion of the unpurchased Regulatory Asset beyond each monthly settlement period.
  - OPG Trust is not expected to access public capital markets for several months after the start of the FHP, and may be purchasing the asset with a lag vs monthly settlements. Also, nor is it required to purchase the regulatory asset.
  - IESO will need a credit facility for interim financing.
  - IESO may require longer-term financing to maintain the deferral financing plan, should the OPG Trust not be able to access debt markets on a timely basis for purchase of some or all of the regulatory asset.
- Based on Ministry of Energy's GA deferral plan, it is estimated that approximately $2.5-3.0 billion need to be deferred per year for over first 10 years, equal to approximately $200-250 million per month, on average.[1]
  - The size of the credit facility required to backstop IESO could be $2.5 to $3.0 billion ~~per year~~. [TBC]
- The monthly and annual amount being deferred and the resulting monthly amounts can be substantially different than forecast based on various factors, such as seasonality or electricity usage, as well as potential changes to electricity costs from OEB rate decisions, with IESO estimating deferral amounts as high as $400 million per month.
- Other factors that may increase IESO's financing requirements:
  - IESO will also incur financing charges that will need to be refinanced.
  - The financing and administration costs that OPG Trust incurs will need to be paid.
- There is an accounting risk on how OFA financing of the IESO requirements would be treated.
  - Even if IESO is allowed to recognized the Regulatory Asset, there is a risk as to whether this recognition will be permitted under the accounting standards (PSAS) upon consolidation with the Province.

[1] Based on Ministry of Energy's annual GA deferral amounts, assuming the monthly deferral is equally-weighted.

From: John Kim
To: Adam Prokop
Cc: Bruno Amara; Shajee Kathirgamanathan
Subject: RE: GA Equity Injection
Date: Wednesday, April 05, 2017 2:04:27 PM

Without going through the whole email….what equity injection has guaranteed success, i.e. above the cost of capital?

Pulling Shajee in on the discussion.

From: Adam Prokop
Sent: Wednesday, April 05, 2017 1:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: GA Equity Injection

Hello John,

I would agree that as long as the return from the Trust is above/at the cost of capital, there is a low risk of the GBE status being threatened if the Province does an equity injection. If the return is just the financing costs, there may be some additional risk from the GBE status.

An important element for retaining the GBE status is if the GBE can continue to operate free of government funding or assistance as a going concern. For example, a GBE may need a one-time subsidy to get itself out of a tough pickle, but is projected to return to long-term profitability afterwards. In this case, it is unlikely that the GBE status would be threatened by the subsidy. What needs to be considered for this Trust is that these equity injections are monthly and over a long period of time of several years. At what point, if at all, would this continued reliance on government funding be considered as a form of a subsidy? If OPG (or the Trust) were to get this equity from a third-party, what would be the expected return to make this structure feasible (i.e., the market consistent equity costs)?

With a common equity injection, there is no guarantee that OPG will return the principal payments or give dividends. The proposed legislation also states that the Province cannot interfere with the Trust, which gives OPG an additional advantage.

The way I am viewing the problem is like buying a house with a 100% mortgage – I (the buyer) represent the Province. The house represents the 44% equity injection of OPG Trust, and the bank providing the mortgage represents the capital markets. Let's say the bank charges me an interest rate of 5% and the capital appreciation of the house is 10% annually.

I am putting my equity into the house, so I expect my return to at least be at the interest rate the bank is giving me (5%). My house will grow in value by 10% and my interest cost will be 5%, so I am getting a return. However, I am owing that cash in interest payments every year while getting no cash return from the house even though it's going up in value.

So on paper, I am growing in value, but my cash flows are actually negative. Eventually, I would need to exit the investment as it is unsustainable. In terms of the Province, this means that if not enough of the investment is returned as a cash inflow, the risk of loss and credit rating downgrades arise. What further complicates things is the fact that OPG is 100% owned by the Province

This is where the considerations of redeemable preferred equity (with a return and a redemption feature but no premium for the Province) or a redemption feature on common equity (redeemable by the Province and at a significant premium to par value after a lock-up period) could protect the cash flow concerns.

I have looked at several wholly-owned state-owned enterprises (SOEs) and their recapitalizations. Australia, Estonia, Hungary, New Zealand, Slovenia, and Norway all demonstrate that wholly-owned unlisted SOEs have requirements that recapitalizations from the public are subject to minimum expected rates-of-return. This is usually at least the cost of capital or market comparable rate. However, other countries (Chile, Finland, Israel, Korea, Lithuania, Netherlands, Poland, and UK) have no specific mechanisms to ensure market-consistent equity costs, but have several other methods including

- Subject to a regular feasibility study
- Takes both public interest and expected financial return into account.
- Considering a market consistent benchmark
- Considering the risk of the investment.

What it boils down to is the main point of the entire structure in the first place – to have 56% of the debt related to the GA financing structure off of the Province's books (on consolidation) to maintain the current credit rating as well as other political reasons regarding the Province's debt levels and balancing the budget. If the structure just involved the Province borrowing from the capital markets and getting payments from the ratepayers, it would be considerably less complicated. Since it is going through OPG, a separate commercial entity expected to be profitable, the rationale for this decision and the feasibility needs to be justifiable. The Hydro One equity injection was justified for protecting Hydro One's valuation; will the Province be compensate for the risk?

Just my continued mulling, will keep working on this.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Adam Prokop
To:	John Kim; Bruno Amara
Subject:	RE: GA Financial Flow Chart Model
Date:	Thursday, March 09, 2017 3:04:10 PM

Sure, what time works best?

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
Sent: Thursday, March 09, 2017 2:56 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financial Flow Chart Model

Could we book a 30 min to go through this pls?

From: Adam Prokop
Sent: Tuesday, March 07, 2017 3:55 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: GA Financial Flow Chart Model

Hello John and Bruno,

Here is the flow diagram model based on the recent information from Energy, OPG, and the latest model from . I believe the current proposition accounting wise is for the OPG Trust to actually start collecting the interest cost from ratepayers (or recognize it in income only with a receivable as an offsetting entry).

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
To: Adam Prokop; Bruno Amara
Subject: RE: GA Financial Flow Chart Model
Date: Thursday, March 09, 2017 2:56:25 PM

Could we book a 30 min to go through this pls?

From: Adam Prokop
Sent: Tuesday, March 07, 2017 3:55 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
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Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	John Kim
To:	Adam Prokop; Bruno Amara
Subject:	RE: GA Financial Flow Chart Model
Date:	Thursday, March 09, 2017 3:06:07 PM

I'm fliexible this afternoon or tomorrow morning. I need a big of a discussion on the whole equity injection piece too.

John.

From: Adam Prokop
Sent: Thursday, March 09, 2017 3:04 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financial Flow Chart Model

Sure, what time works best?

Kind regards,

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Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Bruno Amara
To:	John Kim
Subject:	RE: GA Financing - Equity Injection Discussion ed.docx
Date:	Wednesday, March 22, 2017 3:42:04 PM

Ok thx

From: John Kim
Sent: Wednesday, March 22, 2017 3:19 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

Let me check with Ron about that….as my weekly is tomorrow, so will try to get his okay latest by tomorrow.

From: Bruno Amara
Sent: Wednesday, March 22, 2017 3:04 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

For TBS if you are OK, with providing our note, I'm fine with that.

From: John Kim
Sent: Wednesday, March 22, 2017 3:00 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

Hi Bruno,

Let's think about this one….as for the details for TBS, I was wondering if we could provide our note. Maybe water it down or OPG's white paper.

I'm just not sure which is best.

John.

From: Bruno Amara
Sent: Wednesday, March 22, 2017 1:40 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: GA Financing - Equity Injection Discussion ed.docx

Hi John

Re Kaitlin's note and our balancing act, how about attached if we want to provide some feedback.

We update the chart we used based on the chart that Adam pulled together, and add some language to reflect our discussion this morning with TBS. I think this is minimal based on comments we already provided on the chart and our TBS discussion, but it does add some value. If that makes sense I could get Adam to review chart. I relabelled some of the arrows to make it more generic.

We could also provide this to TBS as follow-up to this morning's conversation. We said we would provide more details. It is mainly the chart that I think would help them. Maybe it's too early to get into the GA Financing model and all the issues we have been discussion e.g., interest recovered/capitalized etc.

Bruno

From: John Kim
To: Bruno Amara
Subject: RE: GA Financing - Equity Injection Discussion ed.docx
Date: Wednesday, March 22, 2017 3:18:57 PM

Let me check with Ron about that….as my weekly is tomorrow, so will try to get his okay latest by tomorrow.

From: Bruno Amara
Sent: Wednesday, March 22, 2017 3:04 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

For TBS if you are OK, with providing our note, I'm fine with that.

From: John Kim
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From: Bruno Amara
To: John Kim
Subject: RE: GA Financing - Equity Injection Discussion ed.docx
Date: Wednesday, March 22, 2017 3:03:54 PM

For TBS if you are OK, with providing our note, I'm fine with that.

From: John Kim
Sent: Wednesday, March 22, 2017 3:00 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
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Bruno

From: John Kim
To: Bruno Amara
Subject: RE: GA Financing - Equity Injection Discussion ed.docx
Date: Wednesday, March 22, 2017 3:00:03 PM

Hi Bruno,

Let's think about this one….as for the details for TBS, I was wondering if we could provide our note. Maybe water it down or OPG's white paper.

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We update the chart we used based on the chart that Adam pulled together, and add some language to reflect our discussion this morning with TBS. I think this is minimal based on comments we already provided on the chart and our TBS discussion, but it does add some value. If that makes sense I could get Adam to review chart. I relabelled some of the arrows to make it more generic.

We could also provide this to TBS as follow-up to this morning's conversation. We said we would provide more details. It is mainly the chart that I think would help them. Maybe it's too early to get into the GA Financing model and all the issues we have been discussion e.g., interest recovered/capitalized etc.

Bruno

From:	John Kim
To:	Bruno Amara
Subject:	RE: GA Financing - Equity Injection Discussion ed.docx
Date:	Wednesday, March 22, 2017 3:43:44 PM

He's OK generally so reminded him we had sent him the note which he said will take a look. :)

From: Bruno Amara
Sent: Wednesday, March 22, 2017 3:42 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

Ok thx

From: John Kim
Sent: Wednesday, March 22, 2017 3:19 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

Let me check with Ron about that….as my weekly is tomorrow, so will try to get his okay latest by tomorrow.

From: Bruno Amara
Sent: Wednesday, March 22, 2017 3:04 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

For TBS if you are OK, with providing our note, I'm fine with that.

From: John Kim
Sent: Wednesday, March 22, 2017 3:00 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Equity Injection Discussion ed.docx

Hi Bruno,

Let's think about this one….as for the details for TBS, I was wondering if we could provide our note. Maybe water it down or OPG's white paper.

I'm just not sure which is best.

John.

From: Bruno Amara

Sent: Wednesday, March 22, 2017 1:40 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: GA Financing - Equity Injection Discussion ed.docx

Hi John

Re Kaitlin's note and our balancing act, how about attached if we want to provide some feedback.

We update the chart we used based on the chart that Adam pulled together, and add some language to reflect our discussion this morning with TBS. I think this is minimal based on comments we already provided on the chart and our TBS discussion, but it does add some value. If that makes sense I could get Adam to review chart. I relabelled some of the arrows to make it more generic.

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Bruno

From:	John Kim
To:	Selena Esmail (MOF); Daniel Tiburcio (MOF)
Cc:	Bruno Amara
Subject:	RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx
Date:	Thursday, March 23, 2017 4:19:25 PM

Sure, we can give you a call at 4:30?

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Thursday, March 23, 2017 4:15 PM
To: John Kim <John.Kim@ofina.on.ca>; Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Hey john – are you around for a quick chat so we can clarify some things with you?

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March-23-17 3:40 PM
To: Esmail, Selena (MOF); Tiburcio, Daniel (MOF)
Cc: Bruno Amara
Subject: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Hi Selena, Daniel,

We have the attached deck with footers that we hope meet the protocol in sending information to FAO. Could you let us know if it does fit with the protocol.

We have sent a version of this deck up the line and assume that this had gone up to the Minister for something that had gone to Cabinet.

Thanks,

John.

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	John Kim
To:	Selena Esmail (MOF); Daniel Tiburcio (MOF)
Cc:	Bruno Amara
Subject:	RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx
Date:	Thursday, March 23, 2017 5:19:39 PM

Hi there,

Just wanted to confirm, you did mention that the numbers, if being provided in an Excel, for example, we need to show the calculations behind the numbers?

Did we hear that right?

John

From: Esmail, Selena (MOF) [mailto:Selena.Esmail@ontario.ca]
Sent: Thursday, March 23, 2017 4:21 PM
To: John Kim <John.Kim@ofina.on.ca>; Daniel Tiburcio (MOF) <Daniel.Tiburcio@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

Ok
416-325-5621

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March-23-17 4:19 PM
To: Esmail, Selena (MOF); Tiburcio, Daniel (MOF)
Cc: Bruno Amara
Subject: RE: GA Financing - Interest Cost Scenarios - Mar 1 Deck - Anonymised_Energy-PW.pptx

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From: Ronald Kwan
To: John Kim
Subject: RE: GA Financing / TB Sub
Date: Wednesday, April 26, 2017 1:03:02 AM

Hi John,

Just had a chance to flip through your deck. Looks good. I'll try to provide some suggestions on Wednesday.

Ron

From: John Kim
Sent: April-25-17 8:23 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: RE: GA Financing / TB Sub

Sure, I did convey some of the message. With more to follow.

John

From: Ronald Kwan
Sent: April-25-17 8:02 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: GA Financing / TB Sub

Hi,

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We should also discuss with TB staff the ask.

We can discuss in the morning too.

Ron

On Apr 25, 2017, at 7:57 PM, John Kim <John.Kim@ofina.on.ca> wrote:

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> **Sent:** April-25-17 7:34 PM

To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: GA Financing / TB Sub

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It may not be an approval item, but TB should be made aware.

And in my mind, Energy should add it in, as IESO is an Energy agency, which says it needs this to perform under the GA part of the FHP.

We can offer to review and support what energy writes.

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> **Date:** April 25, 2017 at 6:56:34 PM EDT
> **To:** "Kim, John (OFA)" <John.Kim@ofina.on.ca>
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> **From:** Montgomery, Kaitlin (MOF)
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Let me know what you think.
Kaitlin

<Finance Structure_GA_Rationale for 51%.docx>

From: John Kim
To: Ronald Kwan
Subject: RE: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 8:23:03 PM

Sure, I did convey some of the message. With more to follow.

John

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Sent: April-25-17 8:02 PM
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<Finance Structure_GA_Rationale for 51%.docx>

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: RE: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 7:56:30 PM

Hi Kaitlin,

Just some early thoughts. Sorry, the preparations for the Document day has kept us very busy.

Our thinking is that the TB submission should note that the IESO is potentially seeking a financing facility from the OFA to provide bridge financing and a backstop. Not sure if the existing facility is to be used or not but the GA-related purpose may be fundamentally different in its intent that the submission should cover it. While it may not be an approval item but TB should be made aware of the potential intent. We had that call, if you recall, where the IESO is saying that the purchase of the regulatory asset is not mandated in the draft legislation.

Given that IESO is an agency of the Ministry of Energy, Energy's submission should have it in there, indicating that it needs this to perform under the GA deferral proposal of the FHP.

I might have more comments later on but some early thoughts for now. We'd be happy to review or help out with anything that's needed.

Thanks,

John

From: John Kim
Sent: April-25-17 7:15 PM
To: Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: Re: GA Financing / TB Sub

Let's connect tomorrow. I have a deck in front of Ron but it's to give a status update more than needing anything per se. But let me take a close look

On Apr 25, 2017, at 6:56 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:

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<Finance Structure_GA_Rationale for 51%.docx>

From:	Bruno Amara
To:	John Kim
Cc:	Shajee Kathirgamanathan; Adam Prokop; Gavin He; Salman Qadir
Subject:	RE: GA Financing / TB Sub
Date:	Monday, April 24, 2017 11:39:44 AM

That OPG note referenced 6 criteria re not being a defacto agent, I only counted 5 and moreover counted 3 of 5 conditions met rather than 4 of 6.

We can draft something re: potential increase IESO borrowing requirements per Salman's deck. I'll take a look at emails from TPD. I don't recall them being comfortable about committing to PiLs exemptions.

Bruno

From: John Kim
Sent: Monday, April 24, 2017 10:20 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: GA Financing / TB Sub

Take a look….

Bruno, pls. take a look at the TB request.

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Monday, April 24, 2017 10:18 AM
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Kaitlin

From:	Salman Qadir
To:	John Kim; Bruno Amara; Salman Qadir
Cc:	Shajee Kathirgamanathan; Adam Prokop; Gavin He
Subject:	RE: GA Financing / TB Sub
Date:	Monday, April 24, 2017 10:29:56 AM

Thanks John.

It looks like what you guys have seen before:

"It is of vital importance, and as concurred by EY, that the majority of the debt in the Trust is not more than 44% funded by the Province".

Don't think it was the intention of this note, but nothing really speaks to OPG not being funded by the Province as debt vs equity.

Salman

From: John Kim
Sent: Monday, April 24, 2017 10:20 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
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Date: Wednesday, April 26, 2017 7:42:54 AM

Great, thanks.

John

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<Finance Structure_GA_Rationale for 51%.docx>

From: John Kim
To: Bruno Amara
Subject: RE: GA Structure v12Clean.docx
Date: Thursday, March 23, 2017 3:50:21 PM

I'd give her the heads up that we're looking into equity injection as a working group involving OPG….and that our understanding is that she's familiar with the process from the H1 IPO.

Could you also reach out to Kaitlin, tomorrow, and ask her to the extent to which ENE is in the loop on the equity injection? We're sort of assuming she's the area keeping them informed.

From: Bruno Amara
Sent: Thursday, March 23, 2017 3:44 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

ok

From: John Kim
Sent: Thursday, March 23, 2017 3:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

And could you engage Malle Hanslep in MOF Legal in the work that we've started on the implementing the equity injection?

John

From: Bruno Amara
Sent: Thursday, March 23, 2017 2:54 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

ok

From: John Kim
Sent: Thursday, March 23, 2017 2:29 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: GA Structure v12Clean.docx

Hi Bruno,

Pls. share this with Felix and James with the caveat of being staff-level internal discussion note. Not reviewed by ADM.

My view is that OPCD should be keeping them in the loop but things don't always work out as should.

Thanks,

John

From: John Kim
Sent: Friday, March 17, 2017 10:50 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: GA Structure v12Clean.docx

Hi Ron,

Pls. see attached on the GA structure, as we understand things.

It's very complex and not sure if an average person on the street would be able to follow.

Thanks,

John.

From:	Bruno Amara
To:	John Kim
Subject:	RE: GA Structure v12Clean.docx
Date:	Thursday, March 23, 2017 3:43:56 PM

ok

From: John Kim
Sent: Thursday, March 23, 2017 3:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

And could you engage Malle Hanslep in MOF Legal in the work that we've started on the implementing the equity injection?

John

From: Bruno Amara
Sent: Thursday, March 23, 2017 2:54 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

ok

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From:	John Kim
To:	Bruno Amara
Subject:	RE: GA Structure v12Clean.docx
Date:	Thursday, March 23, 2017 3:41:47 PM

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John

From: Bruno Amara
Sent: Thursday, March 23, 2017 2:54 PM
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Subject: RE: GA Structure v12Clean.docx

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Thanks,

John.

From: Bruno Amara
To: John Kim
Subject: RE: GA Structure v12Clean.docx
Date: Monday, March 27, 2017 11:26:09 AM

Hi John, I had not reached out to Malle Hanslep yet but am about to do so. Would our GA Financing note be something we could share as draft with her if conversation goes that way, I.e. if she asks if there is any info we can share?

From: John Kim
Sent: Thursday, March 23, 2017 3:50 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

I'd give her the heads up that we're looking into equity injection as a working group involving OPG….and that our understanding is that she's familiar with the process from the H1 IPO.

Could you also reach out to Kaitlin, tomorrow, and ask her to the extent to which ENE is in the loop on the equity injection? We're sort of assuming she's the area keeping them informed.

From: Bruno Amara
Sent: Thursday, March 23, 2017 3:44 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: GA Structure v12Clean.docx

ok

From: John Kim
Sent: Thursday, March 23, 2017 3:42 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
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Thanks,

John.

From:	Bruno Amara
To:	Gavin He
Cc:	John Kim; Adam Prokop; Shajee Kathirgamanathan; Salman Qadir
Subject:	RE: GA financing Ont IOD
Date:	Monday, March 06, 2017 5:40:54 PM

OK Thanks Gavin

Bruno

From: Gavin He
Sent: Monday, March 06, 2017 5:40 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: GA financing Ont IOD

Hi Bruno,

I have updated the IOD numbers. It seems that OPG's net income formula already been adjusted to include the IOD, so it should be fine.

In addition, I have updated the GRC numbers based on the response from OPG, as I think it hasn't been done yet. I saved my edits in v14.

Regards,
Gavin He

From: Bruno Amara
Sent: Monday, March 06, 2017 5:04 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: FW: GA financing Ont IOD

Hi Gavin

Could you please update the outlook based on the attached. It has the IOD figure related to province's GA financing role. This is to be offset by increased OPG net income (highlighted row 17).

I see the current v13 outlook has a placeholder on OPG worksheet line 43 which can be updated. But also need to add this to the OPG net inc. line.

I think this should be it for the outlook, unless OPG's monthly shows up?

Thanks
Bruno

From: Alexander Kraas
Sent: Monday, March 06, 2017 3:47 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: IOD_RPA <IOD_RPA@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: GA financing Ont IOD

Hello John & Bruno;

Please find attached the revised projected IOD numbers for 2017-18 to 2020-21. We used the numbers from the worksheet "Model" and estimated the IOD impact on worksheet "RPA IOD Impact". As you may see from the highlighted row 14 (which we will use for our own IOD update), the revised IOD numbers are marginally lower. We will extend the IOD impact to 2070 over the next couple of days.

Please let us know in case you have any questions.

Best regards

Alex

From:	Gavin He
To:	Bruno Amara
Cc:	John Kim; Adam Prokop; Shajee Kathirgamanathan; Salman Qadir
Subject:	RE: GA financing Ont IOD
Date:	Monday, March 06, 2017 5:39:36 PM

Hi Bruno,

I have updated the IOD numbers. It seems that OPG's net income formula already been adjusted to include the IOD, so it should be fine.

In addition, I have updated the GRC numbers based on the response from OPG, as I think it hasn't been done yet. I saved my edits in v14.

Regards,
Gavin He

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To: Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: FW: GA financing Ont IOD

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Sent: Monday, March 06, 2017 3:47 PM
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Cc: IOD_RPA <IOD_RPA@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan

<Shajee.Kathirgamanathan@ofina.on.ca>
Subject: GA financing Ont IOD

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Please let us know in case you have any questions.

Best regards

Alex

From:	Adam Prokop
To:	Gavin He; Bruno Amara
Cc:	John Kim; Shajee Kathirgamanathan; Salman Qadir
Subject:	RE: GA financing Ont IOD
Date:	Tuesday, March 07, 2017 9:55:28 AM

Hello Gavin,

The GRC numbers should remain the same as before as the new information from OPG did not split the GRC between OEFC and MOF.

Kind regards,

Adam Prokop

From: Gavin He
Sent: Monday, March 06, 2017 5:40 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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Please let us know in case you have any questions.

Best regards

Alex

From: Shajee Kathirgamanathan
To: John Kim
Cc: Bruno Amara
Subject: RE: GA forecasts
Date: Tuesday, March 14, 2017 4:14:47 PM
Attachments: Fwd GA Debt Financing numbers.msg
GA Financing Data for Cabinet Submission March 1.xlsx

Hi John,

Just want to confirm, we're free to share the attached excel file we received from Tim Christie's area. (Email also attached).

Karim was asking about these GA forecasts. If ok, will send it on to him.

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 5:57 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: GA forecasts

Fyi, SPFB is looking for some info on the GA forecasts. I'll dig up the info we received from Energy to send their way.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 5:56 PM
To: Karim Javeri <Karim.Javeri@ofina.on.ca>
Subject: RE: GA forecasts

Sure. I think it might have been in some of the files we received from ENERGY. Will take a look at it tomorrow.

Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Karim Javeri
Sent: Monday, March 13, 2017 5:12 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: GA forecasts

Hi Shajee,

We are in the process of evaluating whether or not the Fair Hydro Plan will impact the indices we use to determine NUG contract rates. To do that, it would be useful if you could share you GA estimates – Emily was saying you have been working on GA forecast that reflect the smoothing.

Regards,

Karim

From: Gavin He []
To: Adam Prokop [Adam.Prokop@ofina.on.ca]; Salman Qadir [Salman.Qadir@ofina.on.ca]; Shajee Kathirgamanathan [Shajee.Kathirgamanathan@ofina.on.ca]
Subject: Fwd: GA Debt Financing numbers
Date: Wednesday, March 01, 2017 10:47:15
Attachment 1: GA Financing Data for Cabinet Submission March 1.xlsx
Attachment 2: ATT00001.htm

Begin forwarded message:

From: "Malecki, Justin (ENERGY)" <Justin.Malecki@ontario.ca>
Date: March 1, 2017 at 09:46:24 EST
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: "Kim, John (OFA)" <John.Kim@ofina.on.ca>, Bruno Amara <Bruno.Amara@ofina.on.ca>, "Christie, Tim (ENERGY)" <Tim.Christie@ontario.ca>
Subject: RE: GA Debt Financing numbers

Hello Gavin,

Please find attached the borrowing/payment schedule for the GA financing option that is in today's cabinet submission. Happy to answer any further questions you may have.

Cheers,

Justin Malecki, PhD
Senior Advisor, Energy System Planning
Ontario Ministry of Energy
416-325-9372

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: February-28-17 8:14 PM
To: Christie, Tim (ENERGY); Malecki, Justin (ENERGY)
Cc: Kim, John (OFA); Bruno Amara
Subject: GA Debt Financing numbers

Hi Tim/Justin,

Hope you are doing well! It seems that the GA smoothing numbers for 25% reduction have been updated. Could you please provide the latest underlying numbers used for the GA numbers included in the deck tomorrow morning? I have attached the excel you provided previously but I think there's an updated version?

Thanks,

Gavin He
Corporate and Electricity Finance Division
Ontario Financing Authority
416-325-0924 | Gavin.He@ofina.on.ca

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

$ million	2017	2018
IESO Forecast GA Cost + Extrapolation	12,095	11,835
March 1 Cabinet Option		
Ratepayer GA Payment	9,595	9,327
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508
Interest on accumulated debt	0	-128
Amount by which debt account changes in present year	-2,501	-2,636
Accumulated debt	-2,501	-5,136

2019	2020	2021	2022	2023	2024	2025	2026	2027
11,552	12,168	10,844	10,634	10,243	11,128	10,527	10,033	11,043
9,051	9,094	8,184	8,180	8,206	9,743	9,316	10,236	11,476
-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433
-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367
-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934
-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662

2028	2029	2030	2031	2032	2033	2034	2035	2036
10,819	10,009	9,721	8,654	8,820	8,238	7,756	5,662	5,389
13,061	12,250	11,963	10,896	11,061	10,480	9,998	7,904	7,630
2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
-1,415	-1,373	-1,328	-1,282	-1,233	-1,181	-1,127	-1,070	-1,010
826	869	913	960	1,009	1,061	1,115	1,172	1,232
-26,836	-25,967	-25,054	-24,094	-23,085	-22,025	-20,910	-19,738	-18,506

2037	2038	2039	2040	2041	2042	2043	2044	2045
5,129	4,881	4,645	4,421	4,207	4,004	3,811	3,627	3,451
7,370	7,122	6,887	6,662	6,449	6,246	6,052	5,868	5,693
2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
-947	-881	-811	-738	-661	-580	-495	-406	-312
1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930
-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161

2046	2047	2048	2049	2050
3,285	3,126	2,975	2,831	2,695
5,526	5,368	2,975	2,831	2,695
2,242	2,242	0	0	0
-213	-109	0	0	0
2,029	2,132	0	0	0
-2,132	0	0	0	0

$ million	2017	2018
IESO Forecast GA Cost + Extrapolation	12,095	11,835
March 1 Cabinet Option		
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-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367
-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934
-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662

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-1,415	-1,373	-1,328	-1,282	-1,233	-1,181	-1,127	-1,070	-1,010
826	869	913	960	1,009	1,061	1,115	1,172	1,232
-26,836	-25,967	-25,054	-24,094	-23,085	-22,025	-20,910	-19,738	-18,506

2037	2038	2039	2040	2041	2042	2043	2044	2045
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-947	-881	-811	-738	-661	-580	-495	-406	-312
1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930
-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161

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2,242	2,242	0	0	0
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2,029	2,132	0	0	0
-2,132	0	0	0	0

From: Adam Prokop
To: Bruno Amara; John Kim; Shajee Kathirgamanathan
Subject: RE: GA structure edits/comments
Date: Tuesday, March 14, 2017 1:18:29 PM
Attachments: GA Structure v10.docx

Thanks for the comments and addition. V10 can be found here: \\ofina.on.ca\ofadfs\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure

I have responded to the comments. Good point John about how debt would be slightly higher under the immediate interest payment collection option if they remain committed to achieving the same savings as the interest deferral option.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Bruno Amara
Sent: Tuesday, March 14, 2017 12:19 PM
To: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: GA structure edits/comments

Hi,

I added some more edits to the note. Hopefully I edited the previous version 8. It's mostly wordsmithing, but a some comments/questions as well.

Thanks, the note has helped me grasp this much better but check my edits as some may reflect my not fully understanding.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a proposed cap of $2.242B on the annual additional cost over the GA to lessen the burden on ratepayers.
- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the ~~Province~~ mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in ~~interest on interest costs~~compounding) or if interest will be recovered from ratepayers on an ~~frequent~~ on-going basis.
    - If interest costs are capitalized, ~~Having "interest on interest" (i.e., compounding effect) with deferrals on interest payments increases~~ peak debt would increase by approximately $5B and ~~leads additional~~ accumulated interest costs would increase by an estimated $xxx~~, based on preliminary estimates~~.
    - Alternatively, if ~~However, if~~ interest payments are made by ratepayers on an ~~frequent~~ on-going basis~~,~~ debt costs would be lower, however this ~~it lessens the relief provided by the GA deferral mechanism and~~ would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of ~~borrowing~~principal simply needs to be larger to offset this effect.
- ~~Furthermore, i~~It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers immediately or recognized at the very least as a future benefit to the Province, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, ~~likely as a regulatory asset that~~ which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that ~~The proposal states that~~ the IESO ~~would~~ be required to recover ~~collect~~ the costs associated with this asset even after selling it.
    - To do this t~~T~~he IESO would need~~s~~ to sell the asset in order to secure cash to settle its arrangements with generators, thus ensuring ~~that~~ generators are not affected by the deferral.
        - Alternatively, IESO could simply borrow funds (using the regulatory asset as collateral), but poses risks ~~this has implications~~ for both consolidation on public accounts and ~~including the impact on~~ credit ratings.
        - With respect to the credit rating risk, ~~On the other hand,~~ DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate*

Commented [JK1]: A cap of $ amount?

Commented [AP2R1]: The cap on the current plan is $2.242B. It has been added.

Commented [BA3]: Can we put in a figure?

Commented [BA4]: ? borrowing would be less if ratepayers pay interest on an ongoing basis.. No?

Commented [AP5R4]: Yes the borrowing would be less if there is no firm savings target. But if interest rates are being paid immediately, this eats into the savings commitment of 25%. So one has to borrow a larger amount for the principal so that the total reduction in the GA less the interest costs is equal to 25%. I changed borrowing to principal to make this more understandable. Overall, the total borrowing in both situations are similar. See attached excel sheet for example.

GA interest vs no deferral.xlsx

Commented [BA6]: Recognized as expense with fiscal impact (or does this also get passed on to ratepayers?

Commented [AP7R6]: There could or could not be a fiscal impact, depending on the four options below. It could also be collected from ratepayers immediately, or recognized as an expense (with or without fiscal impact depending on offsetting entries) that would not be collected in cash from ratepayers until a later date.

base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt".

- OPG is proposing to set up a special purpose vehicle, "OPG Trust~~" that~~", which would purchase the regulatory asset from IESO.
    - The purchase would be funded by the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through a loan from the capital markets (5%) and an equity injection from the P~~p~~rovince (44%).
    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper released on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The ~~rationale behind an~~ equity injection ~~is that it~~ could lead to increasing, and then stabilizing, dividend payouts in ~~commensurate~~ consistent with ~~the~~ O~~ntario~~ PG'~~sower Generation~~'s risk profile and comparable business entities.
    - Principal ~~payments~~ and interest pay~~e~~ments flowing from the ratepayers through the IESO and the Trust could be ~~relayed~~ paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about~~n estimated ten~~ 10 years~~'~~ time, eventually reaching a cap of ~~an estimated~~ $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized ~~with the interest on~~ interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split, as dividends allow OPG to reduce its retained earnings thereby reducing equity.~~.~~
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts, potentially offsetting ratepayer benefit of the GA deferral mechanism.
- The financing structure split between equity (44%) and debt (~~56% –~~ 5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments ~~that can be undertaken~~, depending on legislative and regulatory approval, that would~~ill~~ impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers ~~immediately~~on an on-going basis:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers ~~immediately~~along the way. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest

Commented [JK8]: Released? Is this in reference to the 14 conditions?

Commented [AP9R8]: Reference to the 14 conditions as well as a multitude of other requirements (e.g., accounting treatment, risks) that need to fall in place in order for the proposition to be a success.

Commented [SK810]: Please confirm if this is Feb 17.

Commented [AP11R10]: This is from a report OPG sent on February 27, 2017 to the DM of MOE.

Commented [BA12]: I am unsure of what the key message of this section is? My lack of understanding.

Is this mainly about how the Province gets repaid for its equity injection?
Is the optimizing capital structure a key message and is this capital structure something the market is looking for, or the Auditor General?

Commented [JK13]: Might want to clarify as what you're saying here is to lower equity in the immediate sense to get to 55-45 right away before starting to inject equity.

Commented [JK14]: Not sure what this means. Does this mean that it is preferable to OPG doing its own borrowing?

Commented [AP15R14]: Yes, it is basically saying that an equity injection (recapitalization) is preferable to OPG taking on that 44% every year in debt, from OPG;s perspective and possibly the Province's.

on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be ~~collected as well~~made. Overall, there would be no fiscal cost, and less debt w~~ould~~~~ill~~ build up over time due to the elimination of the compound effects on interest. ~~However, the relief provided to ratepayers from the principal payments on deferred costs would be~~ lowered ~~mitigated by the amount of these~~is interest payments~~,~~ ~~although~~ this would be ~~fairly moderate~~it ~~is quite low for the initial 4 5 years.~~

- **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which ~~is~~ essentially propose~~s~~s~~ing~~ to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.
- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest. ~~There is a fiscal impact equal to 100% of the interest on the total borrowings. There is also a compounding effect on interest as even though cash interest has not been paid, an expense still needs to be recognized,. even though cash interest has not been paid.~~
- Option 4: **No collection from ratepayers but deferral of expense recognition (Same as Energy's analysis in its Cabinet Submission)**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books and recognize as a regulatory asset, thus eliminating the fiscal impact.
  - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
  - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
  - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
  - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
  - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
  - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
  - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Commented [JK16]: I'd suggest delete as in the end the 25% commitment would lead to more GA deferral over time.

Commented [AP17R16]: Yes, if the 25% commitment is retained then it would result in slightly higher total borrowings. It has been deleted .

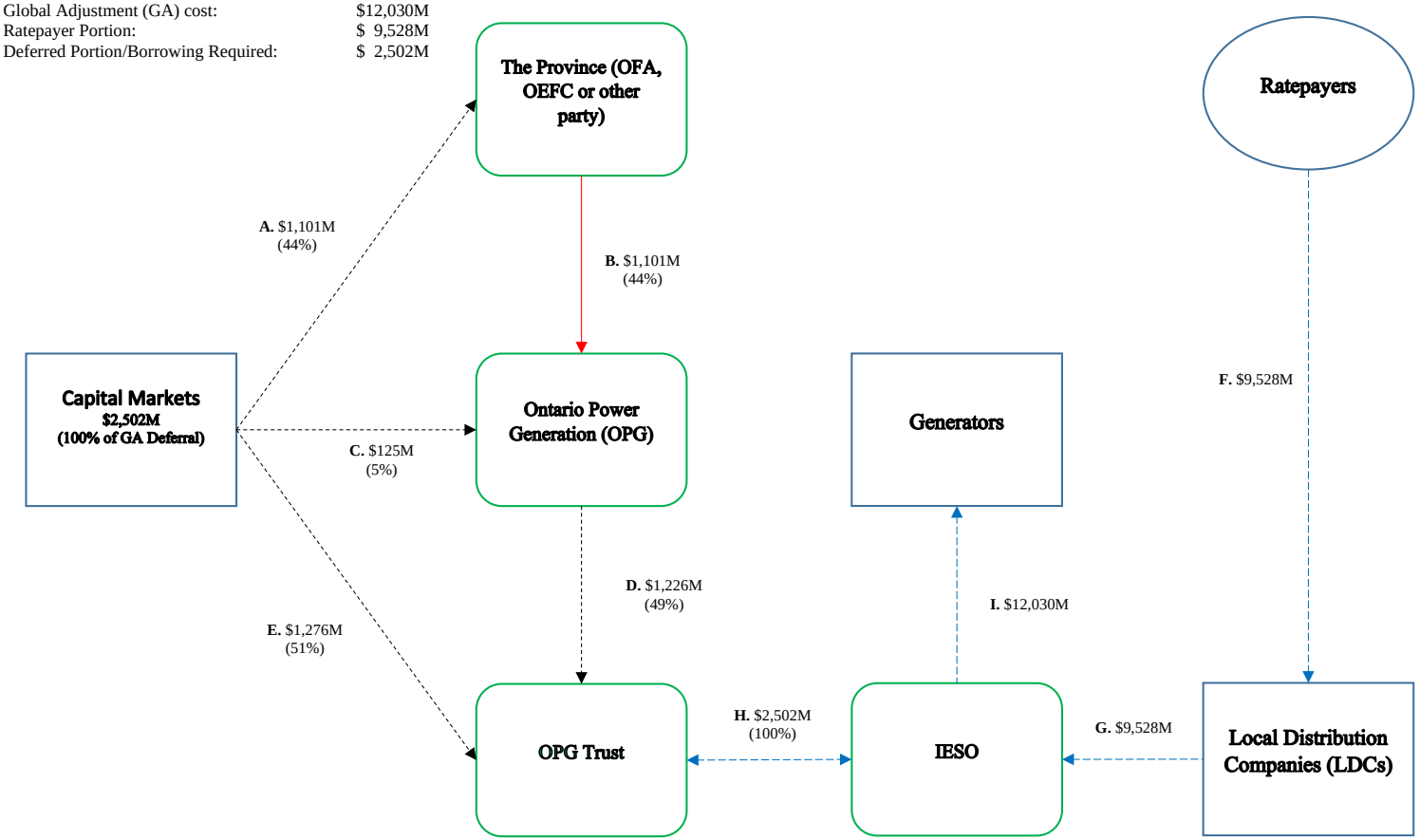
Commented [BA18]: Not sure I fully understand but does the last part of the 2nd sentence need to be moved up per the following:.

There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.

Commented [AP19R18]: Thanks, your rewording works much better.

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M

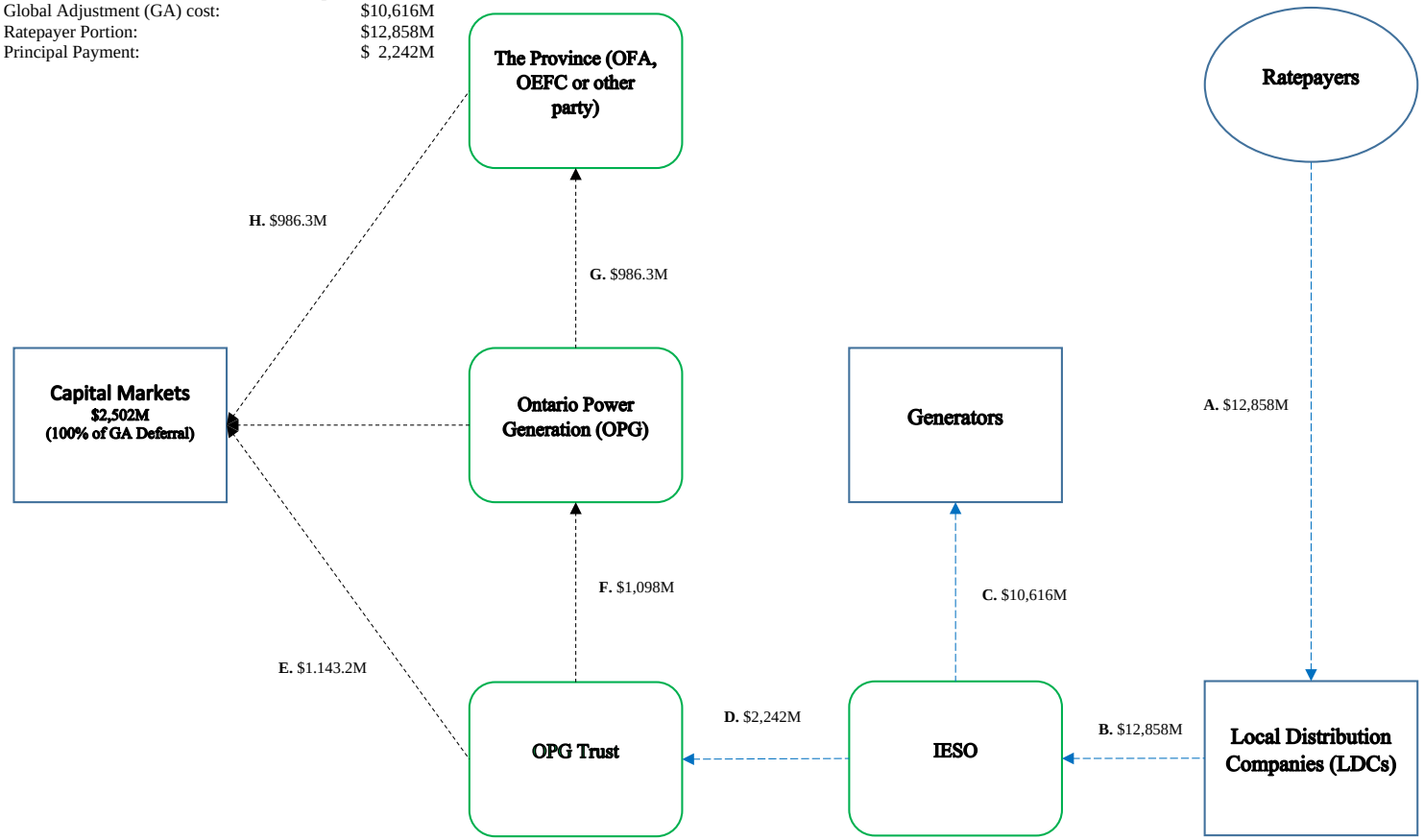


Setting up the Trust
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism
F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

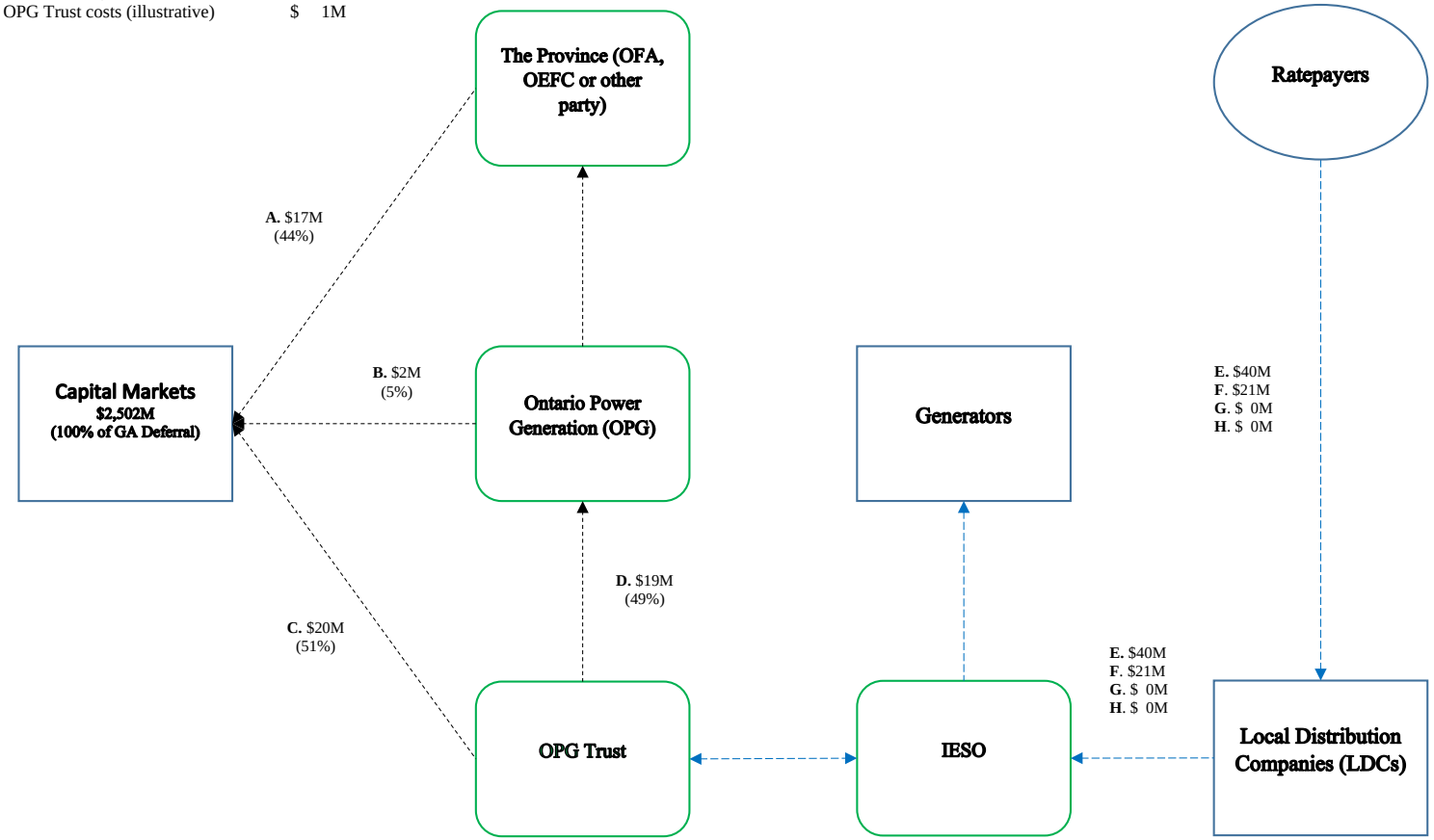
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Adam Prokop (416-325-6462)
Electricity and Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority
March 10, 2017

From:	Bruno Amara
To:	John Kim; Gavin He
Subject:	RE: Globe story
Date:	Saturday, April 15, 2017 8:30:41 PM
Attachments:	OFHP - Media Briefing-Mar1_800.pptx

I think you are correct. I checked the media deck it has the 2.5b over 10 years. See slide 10

From: John Kim
Sent: Saturday, April 15, 2017 8:14 PM
To: Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Globe story

The 25 bn was the interest cost over the 30 yr period. Which coincides with the 2.5bn over 10 yrs. I never liked 2.5bn over 10 yrs as it was just not consisten in the modelling scenario provided for the CabSub. It was less than 10 yrs and the average over 10 yrs was like 2bn. Which by the way is old news…as we have that news release.

Ron's reference to the media presentation simply seems to reinforce 2.5bn over 10 yrs as is in the narrative right now.

I'm happy to push back if that's the conclusion we're leading to.

From: Gavin He
Sent: April-15-17 8:08 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Fwd: Globe story

Hi John/Bruno,

For the $25 billion number, we used it to say over 30 years. Not sure if that was what Kelsey referred to.

Regards,
Gavin He

Begin forwarded message:

> **From:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>
> **Date:** March 2, 2017 at 17:10:50 EST
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Bonnie Lemcke <Bonnie.Lemcke@ofina.on.ca>

Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>, "David McLean (MOF)" <David.McLean@ontario.ca>, "Christopher Pearce (MOI)" <Christopher.Pearce@ontario.ca>
Subject: RE: Globe story

http://www.theglobeandmail.com/news/national/ontario-wynne-slashes-hydro-rates/article34183180/

From: Gadi Mayman
Sent: Thursday, March 02, 2017 5:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Bonnie Lemcke <Bonnie.Lemcke@ofina.on.ca>
Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Christopher Pearce (MOI) <Christopher.Pearce@ontario.ca>
Subject: Globe story

I see that they now have the $25 billion interest cost in their story.

Ontario's Fair Hydro Plan:
Providing Relief for Consumers

Technical Briefing
Ontario Ministry of Energy

March 2, 2017

Outline of Technical Briefing

1. Overview of Ontario's Electricity Market

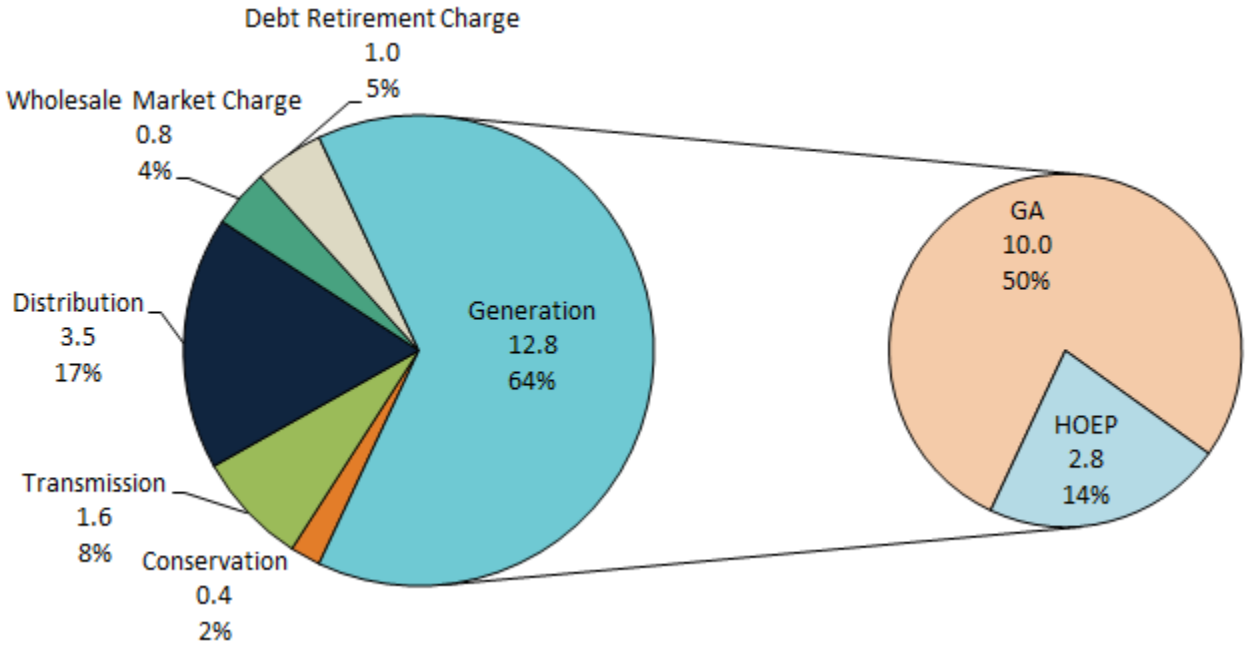
2. Ontario's Fair Hydro Plan – Providing Relief for Consumers

3. Questions

Ontario's Electricity Market

- In 2015, generation accounted for 64% of total electricity system costs. Total system costs in 2015 were $20 billion.

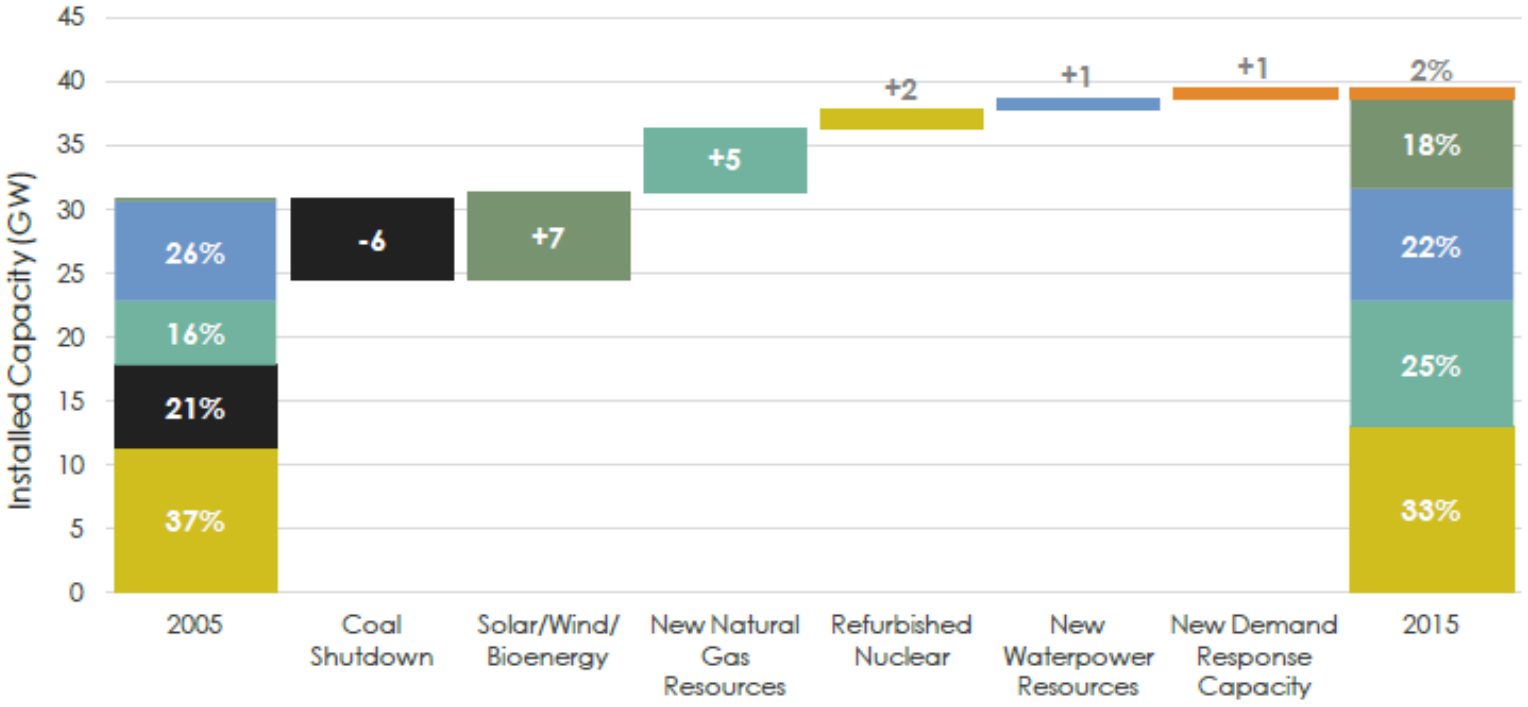
2015 Electricity System Cost
$ billion



Source: IESO

Significant Change in Supply Mix

- Between 2005 and 2015, government invested more than $50 billion in the electricity system, including $35 billion in electricity generation to restore reliability, replace coal and meet environmental objectives.
  - Electricity costs are increasing as necessary investments are made to decarbonize and modernize the province's electricity infrastructure.



Source: *IESO*

Electricity Prices Have Increased

- Since 2010, electricity prices have increased at a rate higher than the Consumer Price Index (CPI).

Typical Residential Electricity Bills
in $ per month, 750 kWh consumption

Source: *Ministry of Energy*

Recent Actions To Mitigate Electricity Rates

- Following the 2016 Throne Speech, several actions were announced to further reduce electricity costs.
  - As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.
  - Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.
  - Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.
  - Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to $129 million in cost savings.

Ontario’s Fair Hydro Plan

Ontario's Fair Hydro Plan

- Ontario is lowering electricity bills by 25 per cent for the typical residential customer and holding rate increases to the rate of inflation for four years. Small businesses and farms would also benefit from this initiative.

- People with low incomes, those served by local distribution companies (LDCs) with the highest distribution costs, OESP recipients and On-Reserve First Nation households would benefit from even greater reductions to their electricity bills.

- These new measures will cost the government up to $2.5 billion over the next three years.

- Government intends to introduce legislation to enable Ontario's Fair Hydro Plan.

1. Refinancing Global Adjustment

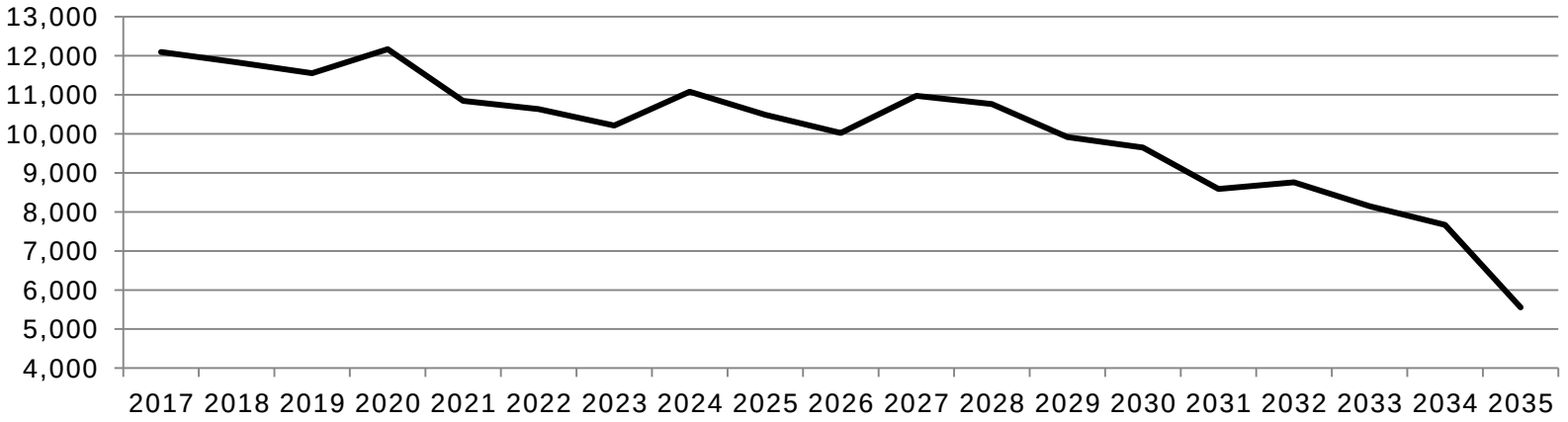
Refinancing the Global Adjustment

- Refinancing the Global Adjustment (GA) would provide significant and immediate rate relief by spreading the cost of electricity investments over a longer period of time.
  - 25% reduction on average for the typical residential customer and rates would follow inflation for the next 4 years.

- Under current forecasts, the immediate reduction (i.e., the financed portion) in the GA would be about $2.5 billion per year on average over the first ten years, with a maximum annual interest cost of $1.4 billion.

- This measure would share the associated costs more fairly. The chart below shows how Global Adjustment (GA) cost is front-end loaded and forecast to decline over time.

Forecast Global Adjustment Cost (nominal $ million)



Source: IESO

Policy Rationale

- The majority of the province's electricity generators are under 20-year contracts. Many of these generators will be able to operate past their contract term.

- By recognizing that generation assets are expected to continue to provide benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.

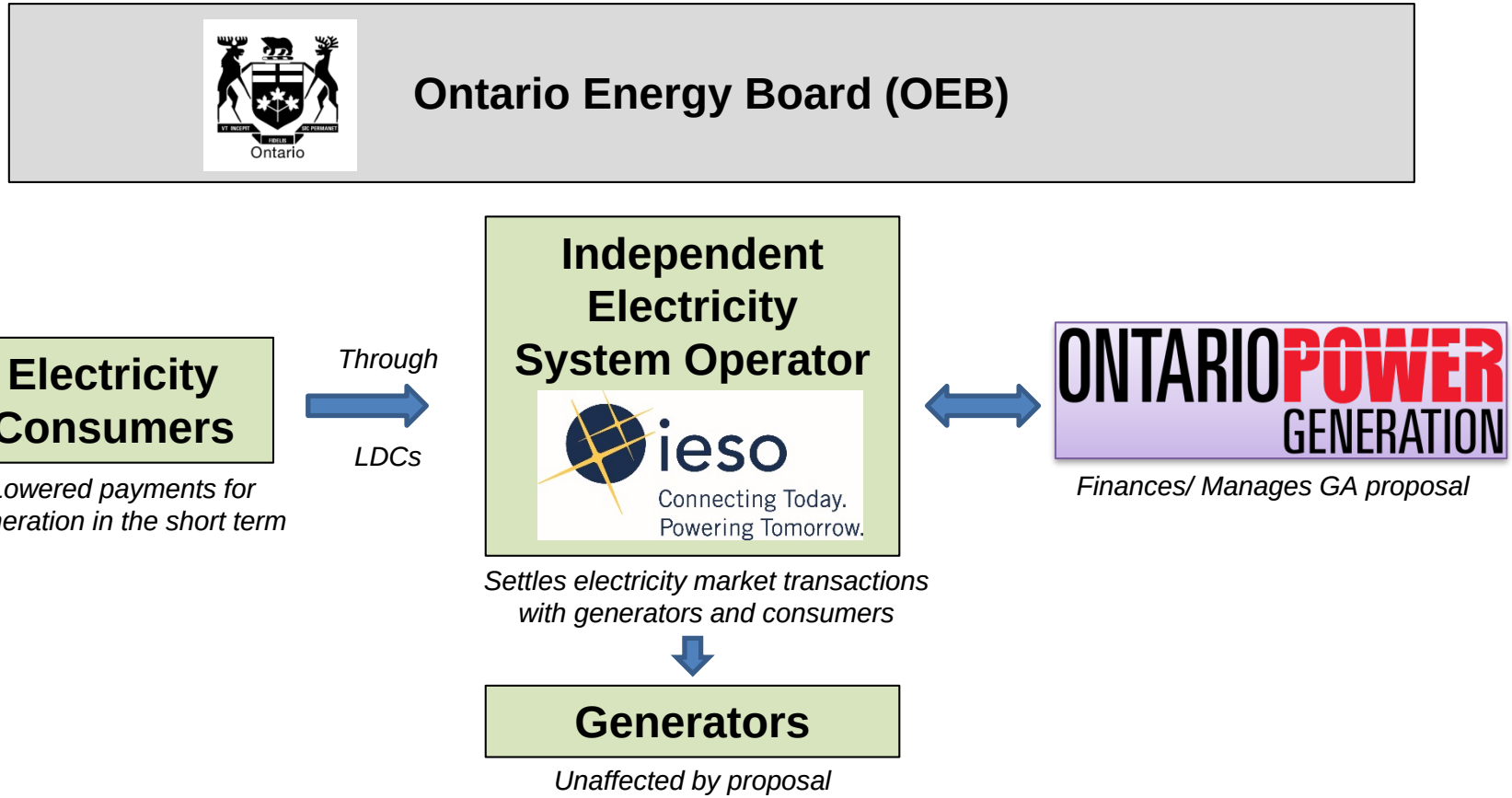
- In the early years, a portion of the costs covered by the GA would be financed to reduce pressure on electricity ratepayers.

- In the later years, when some system costs are expected to be reduced due to continued operation of existing assets under 20-year contracts, the cost of financing would be recovered from ratepayers.

"The amount consumers pay today could be reduced by stretching capital amortization periods to match the expected productive lives of the assets. In this way, the costs of generation charged to households would more closely reflect the true economic costs of the assets."
Globe and Mail Op-Ed (February 28, 2017) – Ivey Business School

Implementation

- The following entities would implement the proposed Global Adjustment (GA) refinancing mechanism.
  - The government intends to introduce legislation that would, if passed, enable IESO and OPG to work together to refinance the GA over a longer period of time. The legislation would also outline the role for the OEB, as it relates to the financing proposal.



2. Helping Vulnerable Consumers

Helping Vulnerable Electricity Consumers

- Fair Hydro Plan initiatives to help vulnerable consumers include:
  - Broadening Rural or Remote Rate Protection (RRRP) program to provide distribution charge relief for the customers of the costliest local distribution companies (LDCs).
  - Enhancing the Ontario Electricity Support Program (OESP) and working to ensure the program uptake is as close as possible to 100%.
  - Establishing a new First Nations On-Reserve Delivery Credit.
  - Establishing a new Affordability Fund which would support Ontarians who have difficulty paying their electricity bills to be able to access energy efficiency improvements.

- All of these initiatives would provide benefits to eligible consumers on top of the benefits they would receive from Global Adjustment (GA) refinancing.

- As part of the Fair Hydro Plan, these programs would be funded by provincial revenues, reducing regulatory charges for all Ontario ratepayers.
  - These programs would be funded by provincial revenues because they all provide targeted benefits to vulnerable consumers.

Broadening Rural or Remote Electricity Rate Protection (RRRP)

- Rural or Remote Rate Protection (RRRP) provides a rate subsidy to rural or remote residential customers who are faced with higher distribution costs compared to urban areas.
  - The RRRP is currently provided to approximately 350,000 Hydro One R2 residential customers in Ontario.

- The Province would expand the RRRP to provide distribution charge relief to additional hydro customers served by local distribution companies (LDCs) with the highest distribution rates, including: Hydro One R1, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power. This would extend RRRP availability to about 800,000 customers.

- The new benefits would vary from LDC to LDC. For example:
  - A Hydro One R2 customer consuming 2,500kWh a month would see distribution cost reductions of around $75 a month.
  - A Hydro One R1 customer consuming 1,000kWh a month would see distribution cost reductions of around $18 a month.
  - An InnPower customer consuming 1,000kWh a month would see distribution cost reductions of around $12 a month.

- The government intends to introduce legislation to broaden the RRRP and to move forward in having RRRP costs be funded by provincial revenues, reducing regulatory charges for all Ontario ratepayers.

Enhancing the Ontario Electricity Support Program (OESP)

- The OESP would be enhanced by increasing its monthly credits by 50%, expanded to cover more low-income Ontarians, and increasing uptake to as close to 100% as possible.
  - Sliding Scale #1 outlines basic program benefits, and Sliding Scale #2 outlines enhanced benefits for Indigenous households, electrically heated households, and households with certain medically intensive medical equipment.
- The government intends to introduce legislation to enhance the OESP and to move forward in having OESP costs be funded by provincial revenues, reducing regulatory charges for all Ontario ratepayers.

Existing OESP Credit Scales

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$30	$30	$34	$38	$42	$50	$50
$28,001 - $39,000			$30	$34	$38	$42	$50
$39,001 - $48,000					$30	$34	$38
$48,001 - $52,000							$30

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$45	$45	$50	$55	$60	$75	$75
$28,001 - $39,000			$45	$50	$55	$60	$75
$39,001 - $48,000					$45	$50	$55
$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$45	$45	$51	$57	$63	$75	$75
$28,001 - $39,000		$40	$45	$51	$57	$63	$75
$39,001 - $48,000			$35	$40	$45	$51	$57
$48,001 - $52,000					$35	$40	$45

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$68	$68	$75	$83	$90	$113	$113
$28,001 - $39,000		$60	$68	$75	$83	$90	$113
$39,001 - $48,000			$52	$60	$68	$75	$83
$48,001 - $52,000					$52	$60	$68

***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

First Nations On-Reserve Delivery Credit

- In 2016, the Minister of Energy asked the Ontario Energy Board (OEB) to develop options for a First Nation delivery credit for households.

- The OEB, engaging with First Nations, including remote communities, the distributors serving them, and consumer groups, developed the following recommendations:
  - Eliminating the delivery charge for all on-reserve First Nations households and removing the monthly service charge for customers of licensed distributors which charge a bundled rate. The OEB estimates this would provide residential customers an average monthly benefit of $85.
  - Automatically qualify on-reserve First Nations households (~21,500 customers).

- The government intends to introduce legislation to create the First Nations On-Reserve Delivery Credit and to move forward in having its costs be funded by provincial revenues, reducing regulatory charges for all Ontario ratepayers.

Establishing a New Affordability Fund

- The Affordability Fund would assist electricity customers who cannot qualify for low-income conservation programs and need financial assistance to undertake energy efficiency improvements.

- The Affordability Fund would provide LDCs with an additional tool to help customers in need. LDCs would use the Fund to provide support to customers for energy efficiency improvements to help reduce their future electricity bills.

- Measures supported by the Fund are expected to be similar to those available under the existing low-income conservation program, such as energy efficient lighting and appliances and, for electrically heated homes, insulation and weather stripping. Cold climate air source heat pumps would also be an eligible measure.

- The Province intends to work with Hydro One, in consultation with all other LDCs, to establish an independent Trust to serve as the administrator of the Affordability Fund.

- The Province would pay for the Fund through provincial revenues.

3. Enhancing Competitiveness for Small Manufacturers and Industrials

Enhancing Competitiveness for Small Manufacturers and Industrials

- The Industrial Conservation Initiative (ICI) provides a strong incentive for participating consumers to reduce their consumption during peak hours to reduce their costs.

- Expanding the eligibility threshold for the ICI would provide small manufacturers and industrials the opportunity to save on their electricity costs, while reducing the province's peak demand. The expanded ICI would include
  - Extending eligibility to small manufacturers and industrials with average monthly peak demand over 500 kilowatts; and
  - Targeting eligibility to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

- Under the expanded ICI, small manufacturers and industrials whose electricity demand is currently too low to qualify for ICI, would now be eligible for the expanded ICI if they wish to participate.

- Small manufacturers would also benefit from funding social programs through provincial revenues.

- In addition, the Ministry would assist small manufacturers and industrials' participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

4. Market Efficiencies / Bending the Cost Curve

Ongoing Efforts To Bend The Cost Curve of Ontario's Electricity System

- Since 2010, the government has taken a number of important actions to reduce electricity system costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.

Improving Electricity Sector Efficiency

The Ontario Energy Board (OEB)

- The Ontario Energy Board (OEB) regulates and licences more than 70 Local Distribution Companies (LDCs) in the province. The OEB would identify opportunities for cost efficiencies by:
  - Encouraging shared partnerships on services between utilities, which will help reduce costs and encourage further innovation for small to medium sized utilities;
  - Reviewing regulatory requirements to reduce “red tape” and eliminate unnecessary costs on LDCs; and
  - Looking at opportunities to further drive transmitter and LDC efficiencies and productivity improvements, including the use of innovative technologies and business processes.

Independent Electricity System Operator

- The IESO plans for the province’s electricity needs, balances the supply and demand for electricity in Ontario in real time and administers conservation programs.

- The IESO’s Market Renewal includes such initiatives as developing a capacity auction process, introducing a day-ahead energy market, etc.

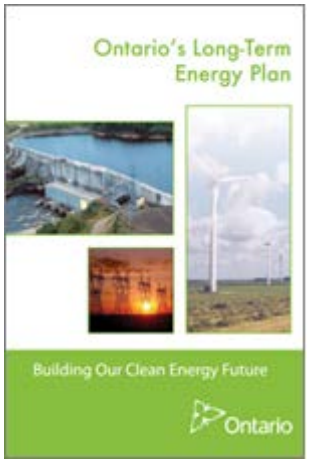
- Changes related to IESO’s Market Renewal initiatives are estimated to save at least $200 million per year, starting in 2021.

2017 Long-Term Energy Plan

- The Ministry of Energy is developing the next Long-Term Energy Plan (LTEP) after receiving feedback from the public, stakeholders and indigenous communities during the engagement process that took place from October to January 2017.

- The LTEP process is designed to be iterative and flexible and only commit resources as demand needs become clearer.

- The Ministry of Energy anticipates that the next LTEP will be published in spring 2017.



From:	Salman Qadir
To:	John Kim
Cc:	Bruno Amara
Subject:	RE: IESO slides
Date:	Wednesday, April 26, 2017 3:55:49 PM
Attachments:	GA - IESO Role and Financing v4 - extract v2.pptx

Hi John,

Tried to incorporate. See slide 2 of the attached. (slide 4 was the previous version and can be deleted).

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<2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf>

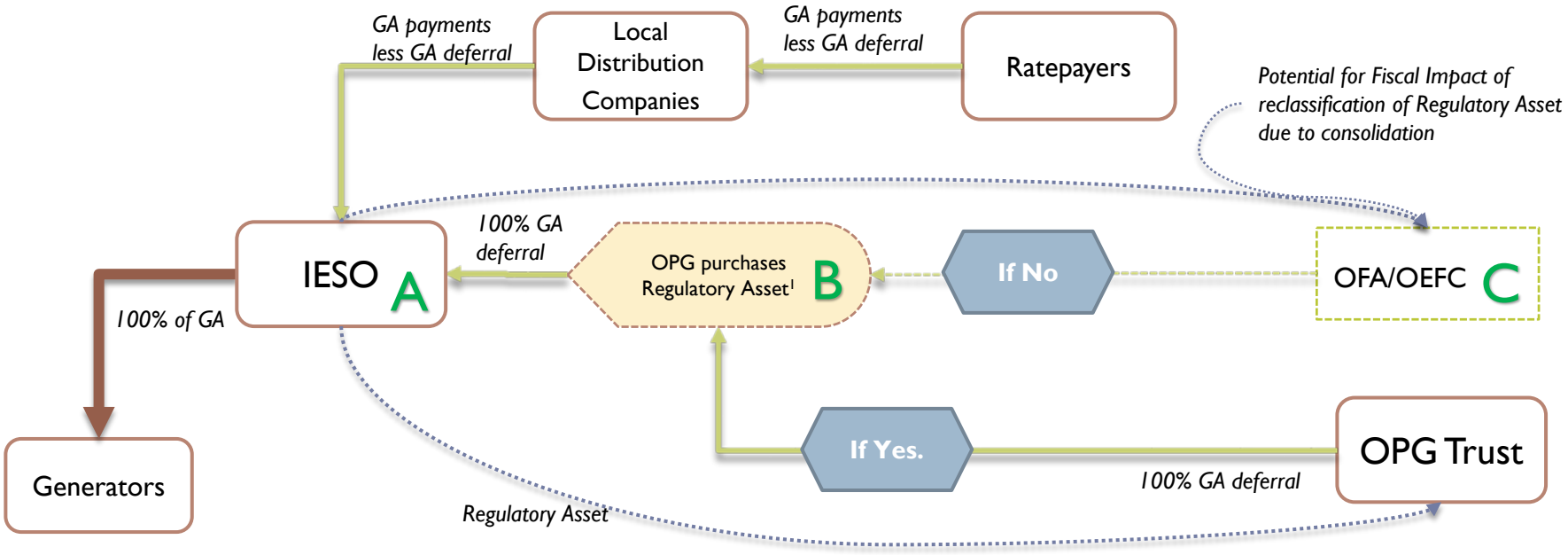
DRAFT

GA Financing Plan: Role of IESO

Corporate and Electricity Finance Division
April 25, 2017

Proposed GA Deferral Structure

- As ratepayers will be paying a reduced GA amount, IESO will have a shortfall in its payment to the generators. OPG, through a Trust, would purchase the Regulatory Asset (i.e. shortfall).



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- Current draft legislation does not appear to mandate that OPG Trust must purchase the 100 per cent of the Regulatory Asset every month from IESO, which results in IESO requiring a revolving credit facility from the Province/OEFC/OFA(C).
  - The use of a credit facility would likely represent a fiscal impact to the Province [TBC – Accounting]

1 Under the proposed Fair Hydro Act, OPG will act as the Financial Services Manager to the OPG Trust to ensure the Financing Plan (i.e. plan to finance the purchase of the Regulatory Assets from IESO) is implemented.

IESO Financing Requirements & Risks

- IESO will need to ensure that it continues to have the funds available to compensate generators on a monthly basis.
- As a result, IESO would potentially require financing to compensate generators should it be required to hold any portion of the unpurchased Regulatory Asset.
    - Even if IESO is allowed to recognized the Regulatory Asset, there is a risk as to whether this recognition will be permitted under the Accounting standards upon consolidation with the Province.
- Based on Ministry of Energy's GA deferral plan, it is estimated that approximately $2.5-3.0 billion will need to be deferred per year for over first 10 years, equal to approximately $200-250 million per month.[1]
- However, the annual amount being deferred and the resulting monthly amounts can be substantially different based on various factors, such as seasonality or electricity usage, with IESO estimating deferral amounts as high as $400 million per month.
- Other factors that may increase the monthly GA deferral amounts:
    - IESO will also incur financing charges that will need to be refinanced.
    - The financing and administration costs that OPG Trust incurs will need to be paid for each month and will not be deferred. The GA amounts Ministry of Energy modelled to be deferred did not include the financing and administration costs. If the ratepayer is paying these costs every month, the GA deferral will need to increase to ensure that the related electricity bill decreases (as a result of the deferral) can reflect the government's proposed 25% electricity rate cut and the increase in bills at the rate of inflation.
- Should OPG not purchase the Regulatory Asset, IESO may require long-term financing to either 1) help unwind the asset or 2) maintain the deferral financing plan.
- If the IESO borrowing requirements increase, the Province will be obligated to provide increased support, which would have implications for the overall GA deferral plan. This increased support from the Province would be repaid by ratepayers.
    - Recent documents show that the Province may be asked to provide a guarantee in which if the GA deferral plan is cancelled, the Province would be responsible for making the investors of the Trust whole. This would mean that the taxpayers could be liable and result in a significant fiscal impact.

1 Based on Ministry of Energy's annual GA deferral amounts, assuming the monthly deferral is equally-weighted.

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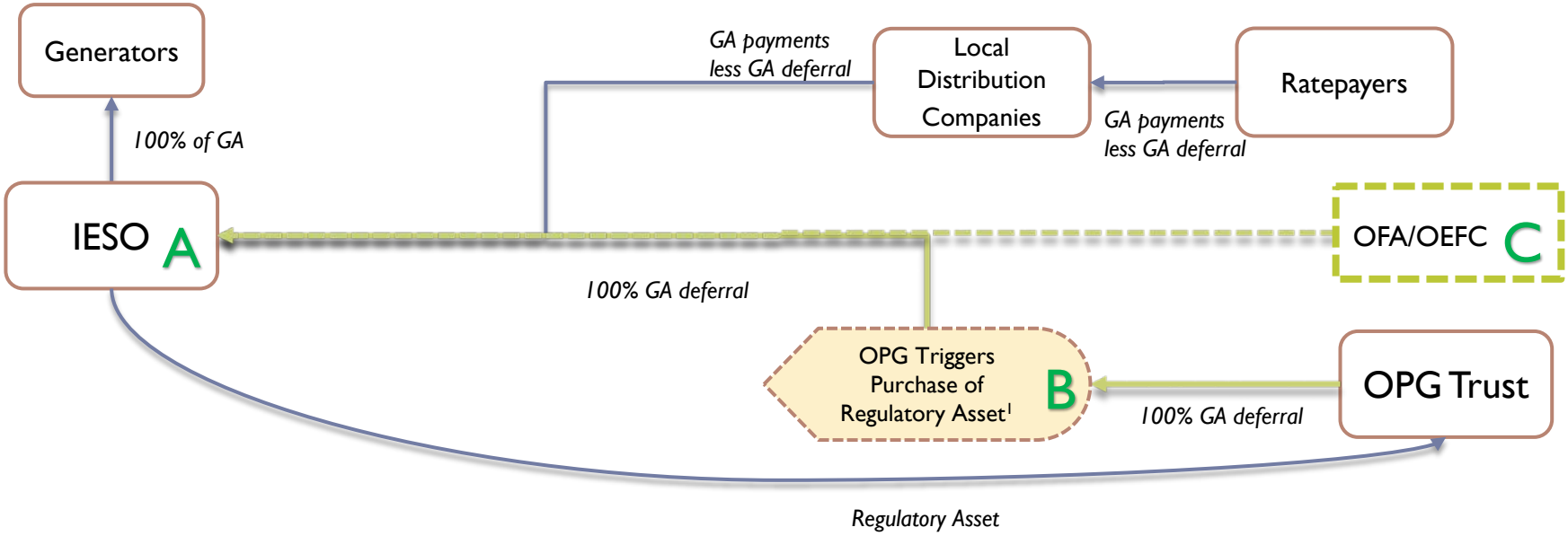

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From:	Bruno Amara
To:	Salman Qadir
Cc:	John Kim
Subject:	RE: IESO slides
Date:	Wednesday, April 26, 2017 3:20:19 PM

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> Ph: 416-212-6996
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> <2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf>

DRAFT

GA Financing Plan: Role of IESO

Corporate and Electricity Finance Division
April 25, 2017

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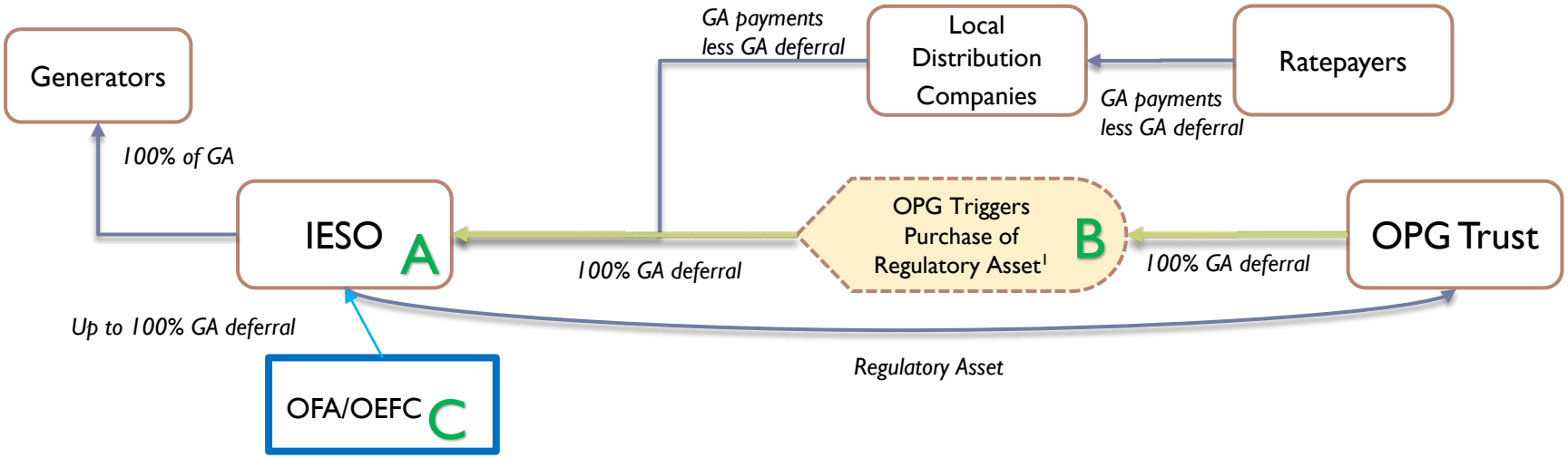

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From: John Kim
To: Bruno Amara; Salman Qadir
Subject: RE: IESO slides
Date: Wednesday, April 26, 2017 2:32:53 PM

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Sent: Wednesday, April 26, 2017 1:55 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: IESO slides

I'm OK with it.

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Sent: Wednesday, April 26, 2017 1:43 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: IESO slides

Hi John/Bruno,

Added another bullet to the end of the list. For your review.

Thanks,
Salman

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Sent: Wednesday, April 26, 2017 12:54 PM
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Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
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From:	Bruno Amara
To:	Salman Qadir
Cc:	John Kim
Subject:	RE: IESO slides
Date:	Wednesday, April 26, 2017 1:54:49 PM

I'm OK with it.

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Subject:	RE: IESO slides
Date:	Wednesday, April 26, 2017 1:43:23 PM
Attachments:	GA - IESO Role and Financing v4 - extract.pptx

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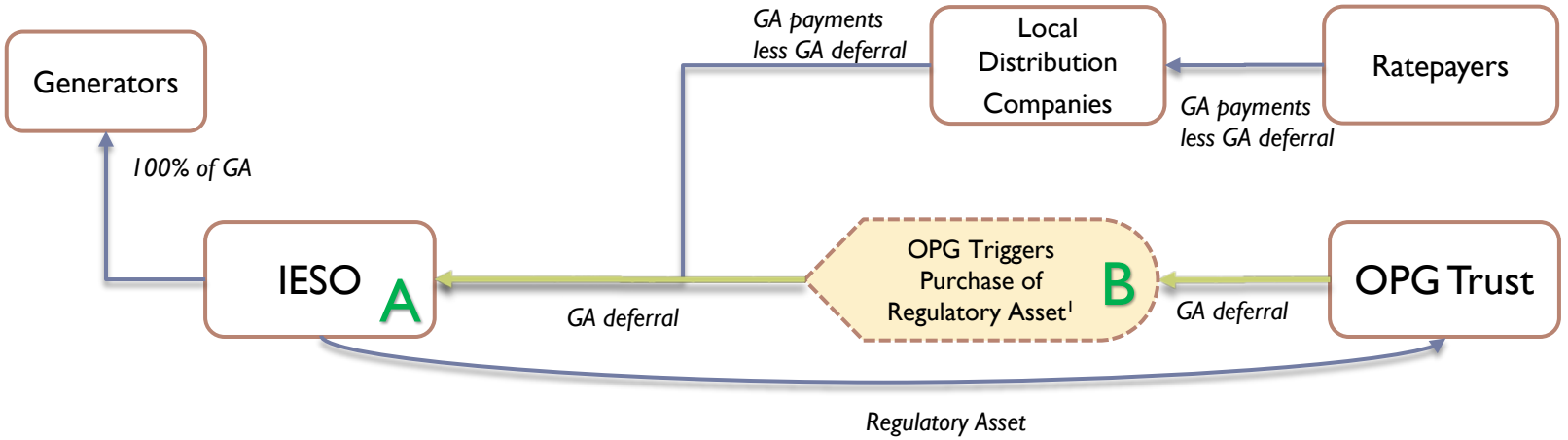

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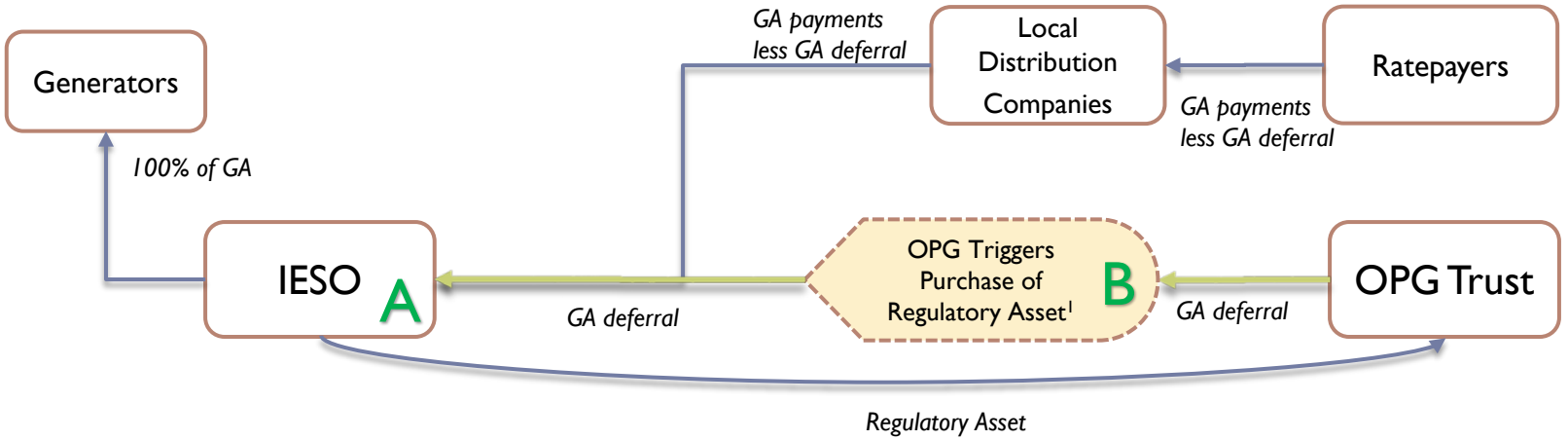

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From: Salman Qadir
To: John Kim
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Date: Wednesday, April 26, 2017 4:15:16 PM

Hi John/Bruno,

I was speaking with Adam about the "potential of fiscal impact upon consolidation" if IESO holds the regulatory asset. The assumption is that upon consolidation, the asset would be decognized as a Regulatory Asset and would be a fiscal impact due to a write down of the asset.

IESO currently has two smaller regulatory assets on its books. What we would like to do is ask OPCD what happens to those assets upon consolidation, whether it remains a regulatory asset or not. Adam can look up the appropriate line items to ask OPCD about.

Salman

From: Salman Qadir
Sent: Wednesday, April 26, 2017 3:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: IESO slides

Hi John,

Tried to incorporate. See slide 2 of the attached. (slide 4 was the previous version and can be deleted).

Salman

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To: Salman Qadir <Salman.Qadir@ofina.on.ca>
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Subject: RE: IESO slides

Along with the adjustment I suggested….is there a way of representing treatment of regulatory asset? i.e. In GBE, the regulatory asset works without a fiscal impact but PSAB may not allow for regulatory assets, for IESO's consolidation.

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Sent: Wednesday, April 26, 2017 3:20 PM
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Thx

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Adding a text box with arrow to IESO with something like "potential OFA lending if OPG Trust buys less than 100% of asset" ?

Is that the way you read it?

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Subject: RE: IESO slides

Hi John/Bruno,

Here is first draft. I think there are 2-3 more points to add to the financing requirements and risks (just need to double check), but thought I'd send this your way in the meantime. I have meeting on the IESO directives/facilities with Lisa/Documentation, so will continue on this afterwards.

Early comments welcome.

Z:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure\IESO Financing

Salman

From: John Kim
Sent: Wednesday, April 26, 2017 12:10 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: IESO slides

This is a stand-alone request….give it a shot

I'm thinking two slides because one with the diagram and the other with some commentaries about the IESO facility being as big as the whole of the deferral program over the deferral years, which I think is higher than 3bn at its high.

From: Salman Qadir
Sent: Wednesday, April 26, 2017 12:09 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: IESO slides

Hi John,

Are you looking to replace that slide with two new ones or we can leave that as is and add 1-2 slides on IESO.

The latter might work best.

Salman

Sent from my iPhone

On Apr 26, 2017, at 11:34 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Salman,
>
> I have a fairly urgent request (hoping for end of day)….in the attached (SpringBreak17 and p. 15 of 80), we have slide 14 that shows the GA diagram. I want to insert the potential IESO funding requirement that we have summarized in our deck of yesterday. I'm open to an updated look but want to have it sent to Energy soon.
>
> Looking for maybe 2 slides to potentially suggest Energy put in their TB submission.
>
> John
>
> Y. John Kim
> Director, Electricity Finance Branch
> Corporate & Electricity Finance Division
> Ontario Financing Authority
> Ph: 416-212-6996
> Email: john.kim@ofina.on.ca
>
> <2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf>

From: Ronald Kwan
To: John Kim
Cc: Gavin He; Bruno Amara; Salman Qadir
Subject: RE: Interest cost deck
Date: Monday, March 06, 2017 5:39:45 PM

Hi John,

A draft covering email.

Ron

Hi David, Chris,

Attached is a response to the request from the MO (see the email chain). MO had asked for a response ASAP (now (EOD). (Doc internal PW)

I'd note that our analysis is a refinement from the Energy analysis. And that our modelling has not been shared with or reviewed by Energy.

Energy said in its CabSub that it was using a 5% interest rate, compounded monthly, but it's actual calculations were done using a proxy annual 5.12%, with interest costs assumed to occur in the following year. That means that the tables from the Energy decks have zero in-year interest costs in 2017, which would be awkward to show, and interest cost in each year calculated based on the beginning of the year debt balance only, not financing the in-year deferrals.

Staff have taken Energy's GA deferral amounts and calculated in-year interest costs based on even monthly GA deferral amounts (a simplification) to generate a table with interest costs starting in 2017. However, since interest costs in the proposed plan are deferred and capitalised, that changes the annual and accumulated debt amounts a bit for what Energy had estimated.

In both the revised and Energy cases, on a rounded basis, the cumulative interest cost is $25 bn, with an annual peak of $1.4 bn in the 5% interest rate scenario. The peak cumulative debt rounds in both cases to $28 bn, but is a little lower in Energy's table, and a little higher in the detailed modelling with interest compounding monthly.

Communications have also talked about implementation in the summer. As such, staff did some sensitivity modelling on a July 1, 2017, implementation date, effectively assuming only half the estimated deferral amount in 2017. The impact on estimated life-cycle cumulative interest costs is significant.

Also included are some interest rate sensitivities, which are have significant impacts.

Ron

From: Gavin He
Sent: March-06-17 17:38
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Interest cost deck

Hi Ron,

EFB is good with the edits. Attached is the clean copy.

Please let me know if you are good with the attached version going to DMO and MO.

Thanks,
Gavin He

From: Ronald Kwan
Sent: Monday, March 06, 2017 5:18 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Interest cost deck

Thanks John. Looks good. I had some suggested text to add.

Ron

From: John Kim
Sent: March-06-17 16:47
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Interest cost deck

Hi Ron,

Pls. see attached. It'd be good to emphasize that the tables are illustrative estimates.

Thanks,

John.

Y. John Kim
Director, Electricity Finance Branch

Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From:	Gavin He
To:	Ronald Kwan
Cc:	Bruno Amara; Salman Qadir; John Kim
Subject:	RE: Interest cost deck
Date:	Monday, March 06, 2017 5:37:55 PM
Attachments:	GA Financing - Interest Cost Scenarios - Mar 1 Deck v6.pptx

Hi Ron,

EFB is good with the edits. Attached is the clean copy.

Please let me know if you are good with the attached version going to DMO and MO.

Thanks,
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Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
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Subject: Interest cost deck

Hi Ron,

Pls. see attached. It'd be good to emphasize that the tables are illustrative estimates.

Thanks,

John.

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division

Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

DRAFT

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

Corporate and Electricity Finance Division
March 6, 2017

DRAFT

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**)* March 1 Deck

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred, per its March 1 Cabinet submission.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

DRAFT

GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)* *March 1 Deck*

- Ministry of Energy modelling estimates provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred in its March 1, 2017, Cabinet Submission.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

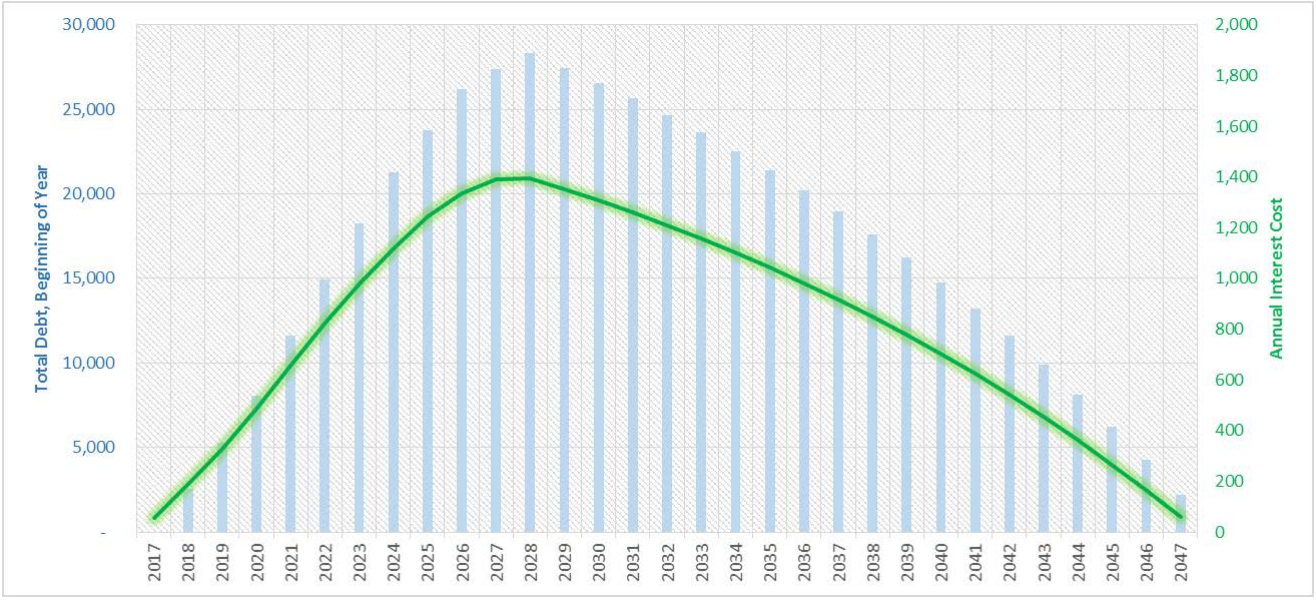
APPENDIX

Effective Date: January 1, 2017

DRAFT

GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

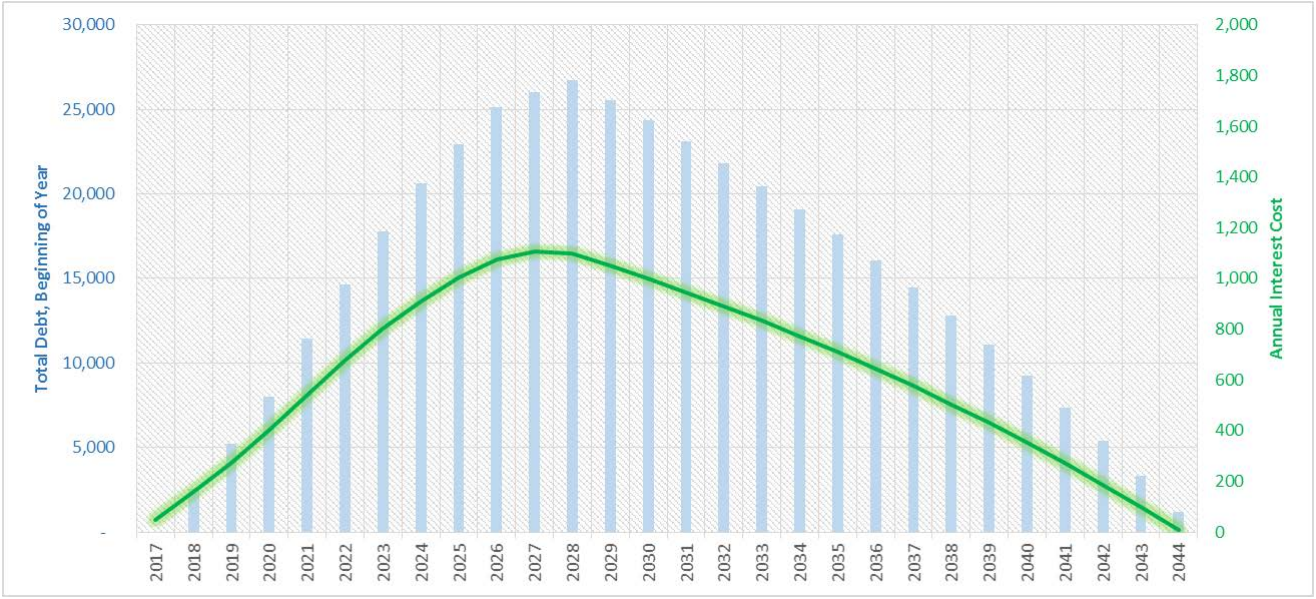
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	**17,367**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

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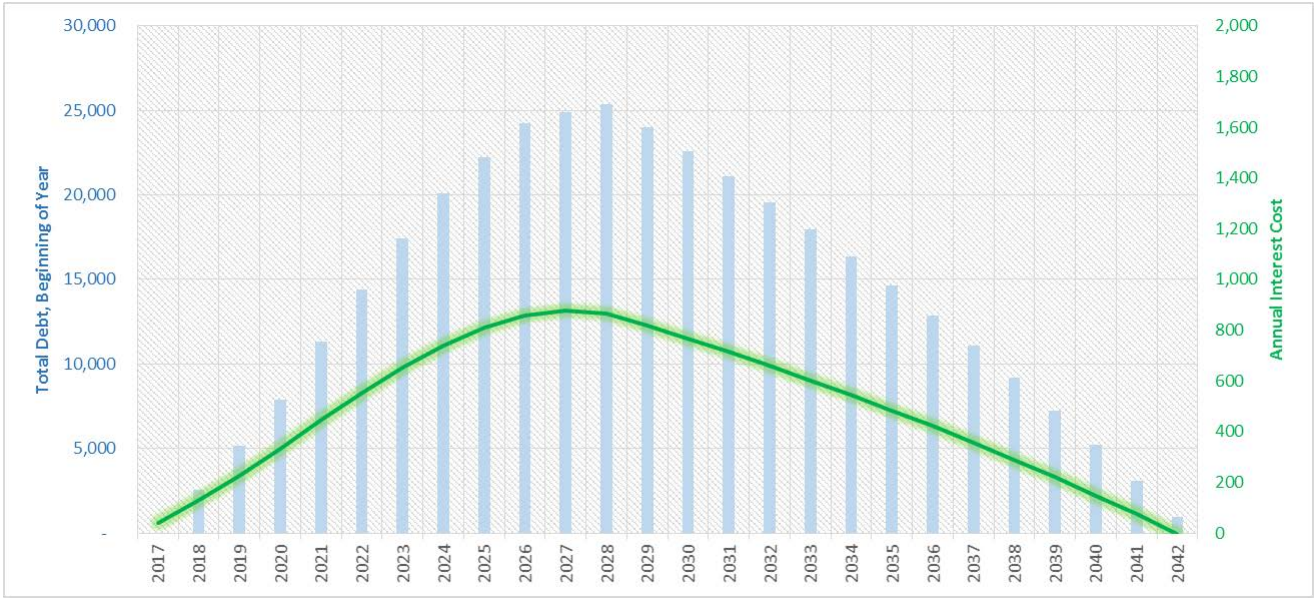
GA Financing: 3.5%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

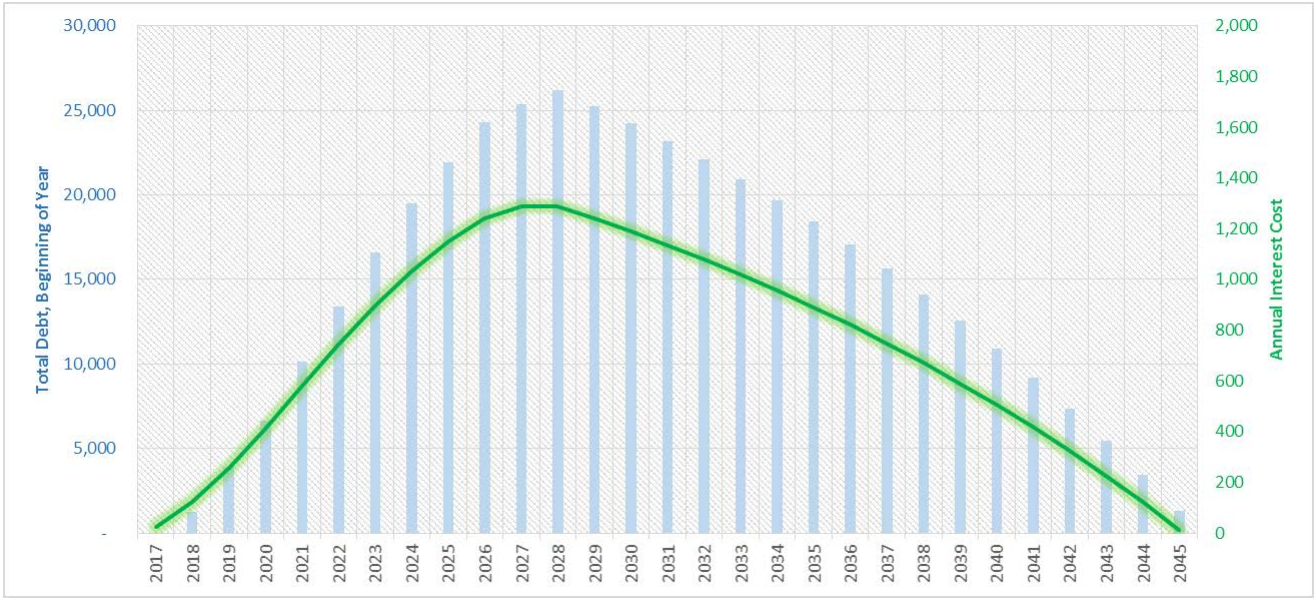
APPENDIX

Effective Date: July 1, 2017

DRAFT

GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
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	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
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Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

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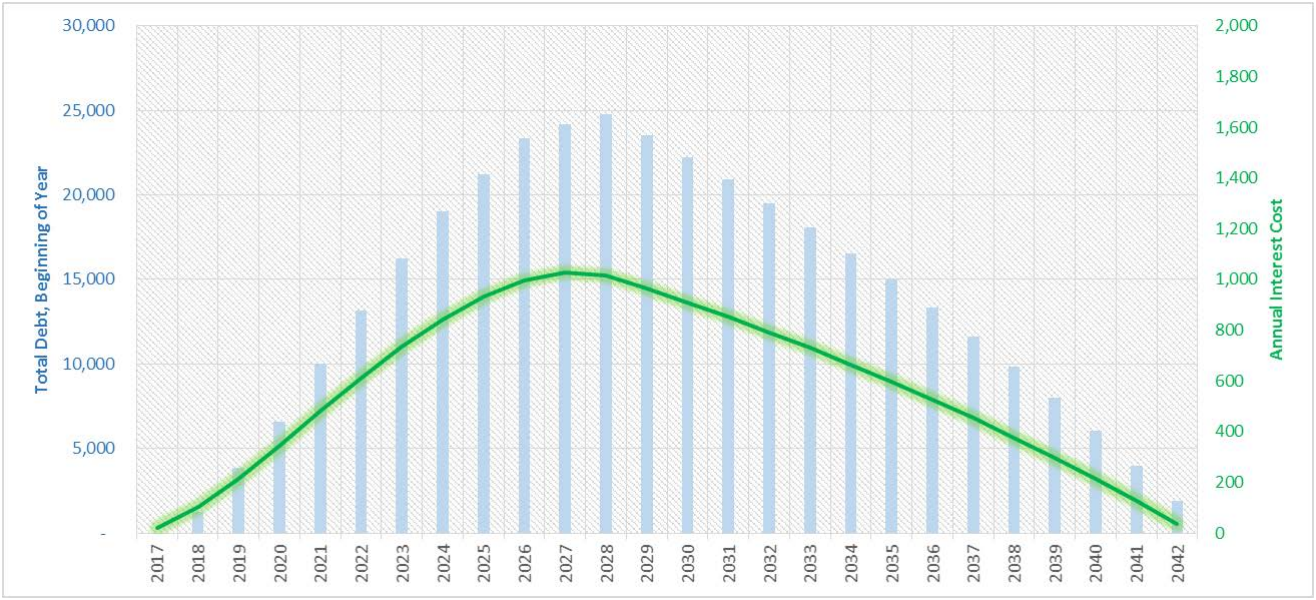
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

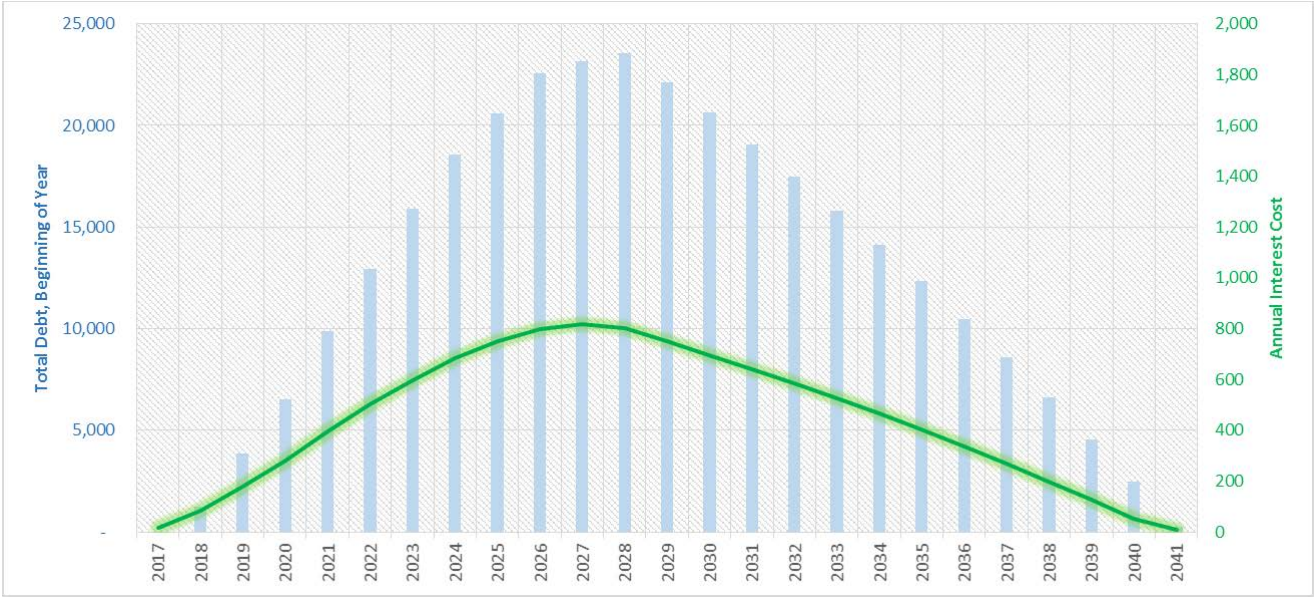
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 5%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

From: Salman Qadir
To: John Kim; Bruno Amara
Cc: Gavin He
Subject: RE: Interest cost deck
Date: Monday, March 06, 2017 5:36:09 PM
Attachments: GA Financing - Interest Cost Scenarios - Mar 1 Deck v6.pptx

---

Looks good to me as well.

Gavin: attached is a clean copy, v6.

Salman

From: John Kim
Sent: Monday, March 06, 2017 5:34 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Interest cost deck

And to me, as well.

If Salman is onside, Gavin, pls. let Ron know that EFB is good. I'm going to get lunch.

From: Bruno Amara
Sent: Monday, March 06, 2017 5:21 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Interest cost deck

Ron's edits look good to me.

From: Ronald Kwan
Sent: Monday, March 06, 2017 5:18 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Interest cost deck

Thanks John. Looks good. I had some suggested text to add.

Ron

From: John Kim
Sent: March-06-17 16:47

To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Interest cost deck

Hi Ron,

Pls. see attached. It'd be good to emphasize that the tables are illustrative estimates.

Thanks,

John.

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

DRAFT

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

Corporate and Electricity Finance Division
March 6, 2017

DRAFT

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**)* March 1 Deck

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred, per its March 1 Cabinet submission.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)* *March 1 Deck*

- Ministry of Energy modelling estimates provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred in its March 1, 2017, Cabinet Submission.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

APPENDIX

Effective Date: January 1, 2017

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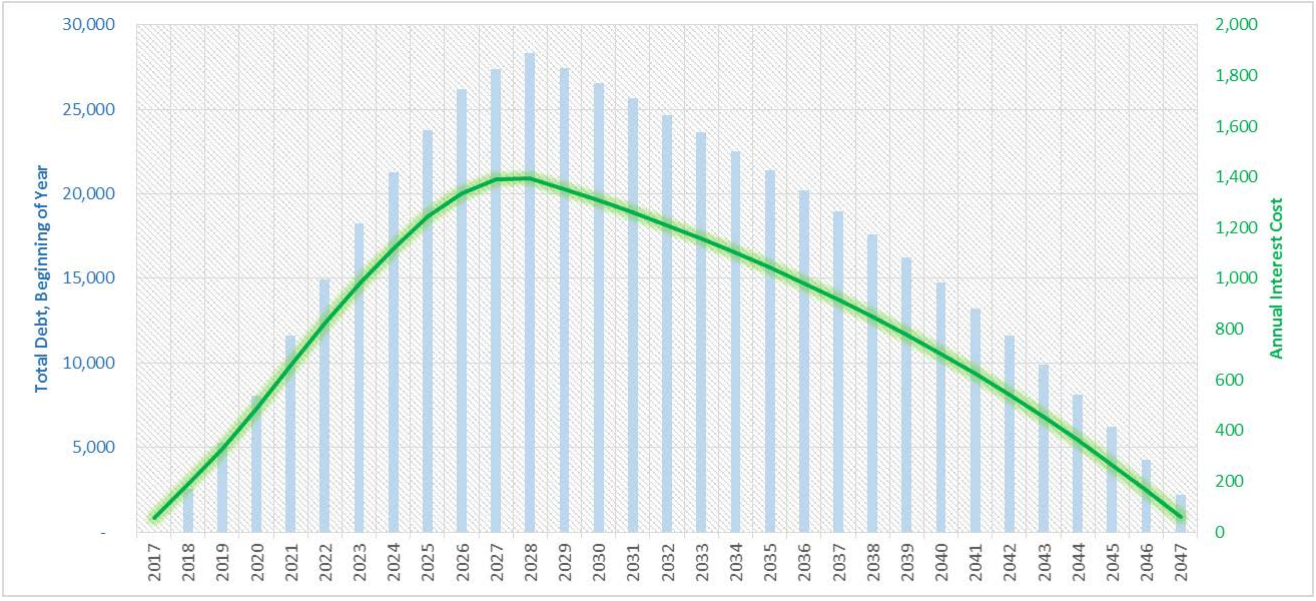
GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

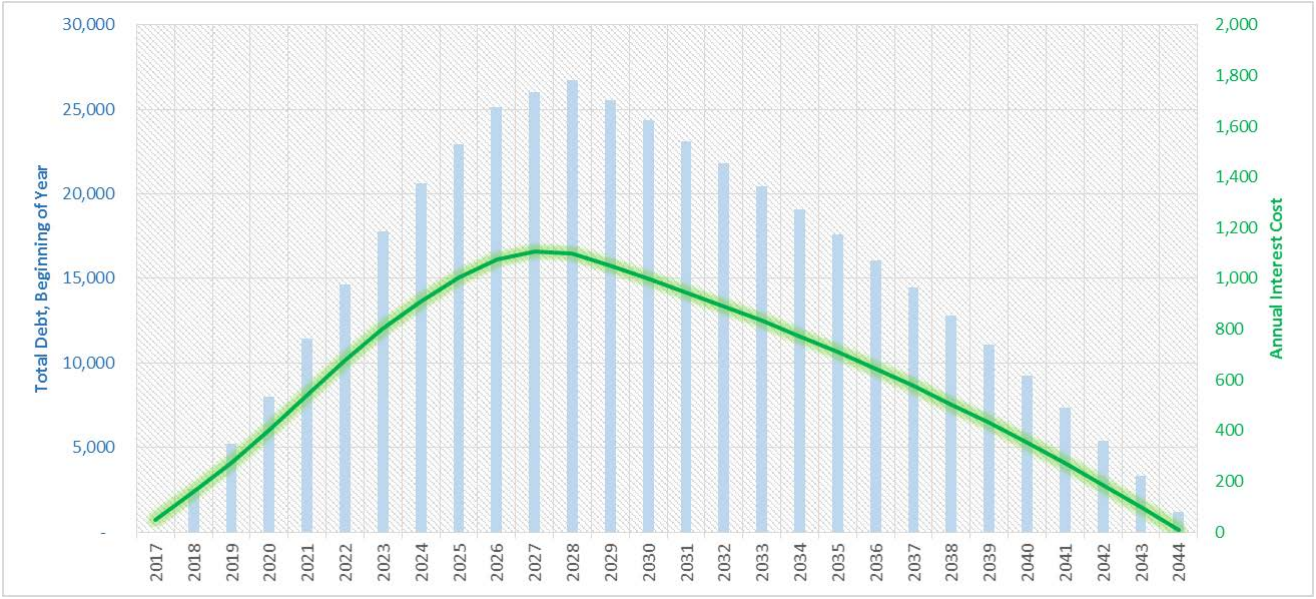
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	**17,367**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

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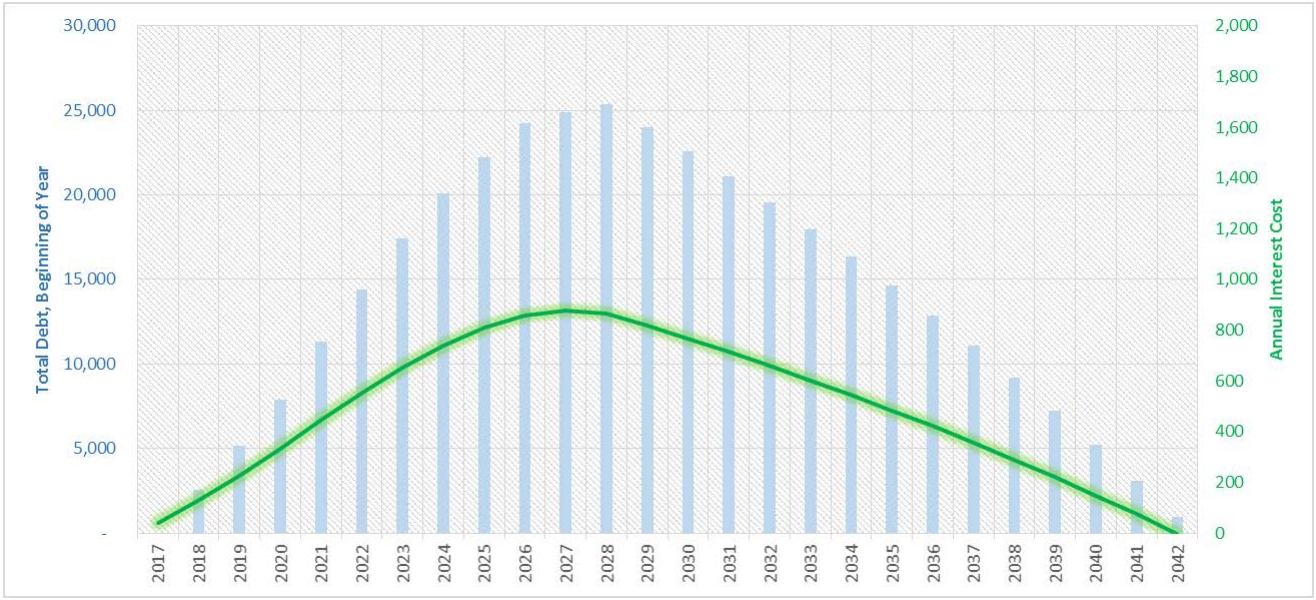
GA Financing: 3.5%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

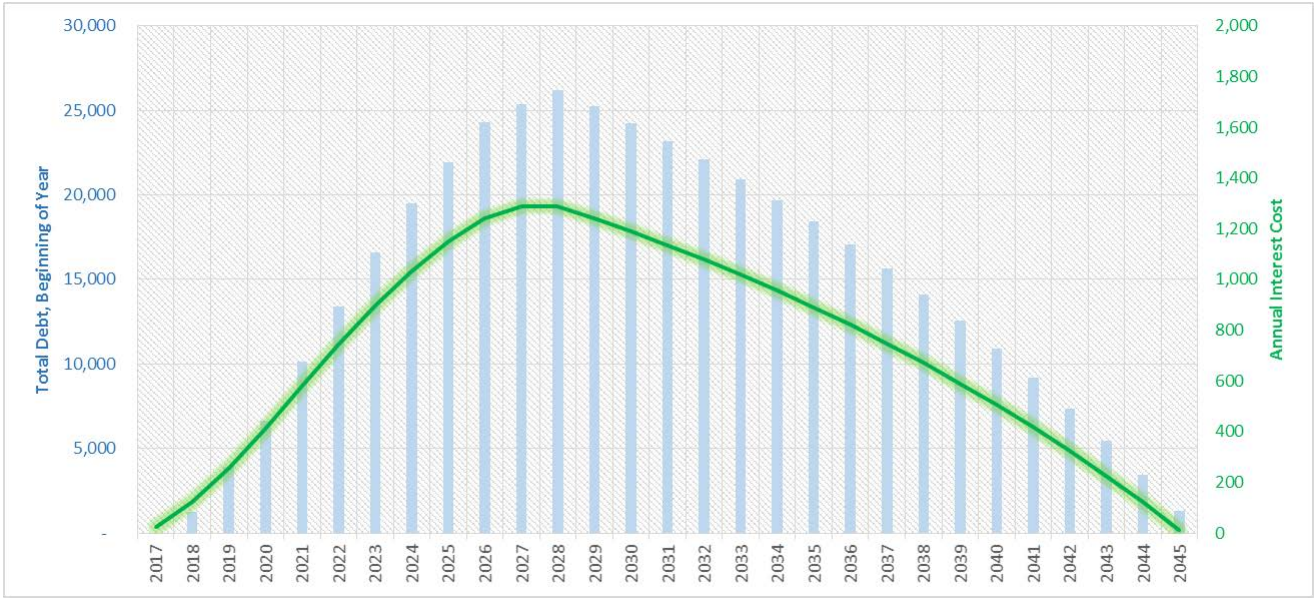
APPENDIX

Effective Date: July 1, 2017

DRAFT

GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

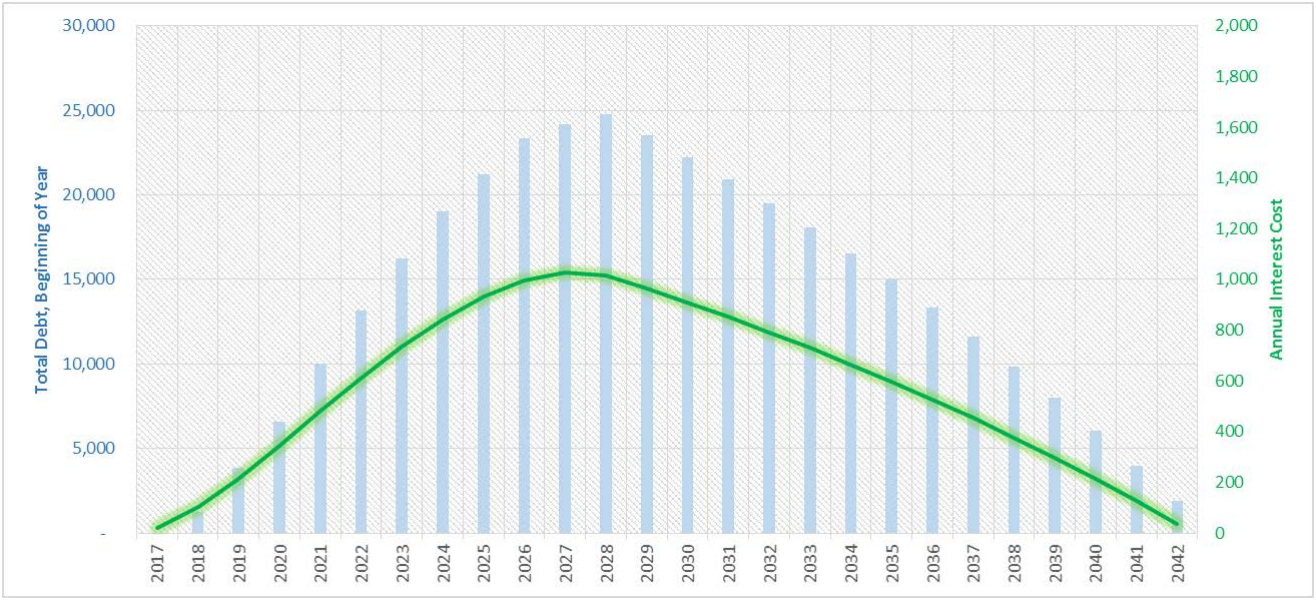
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

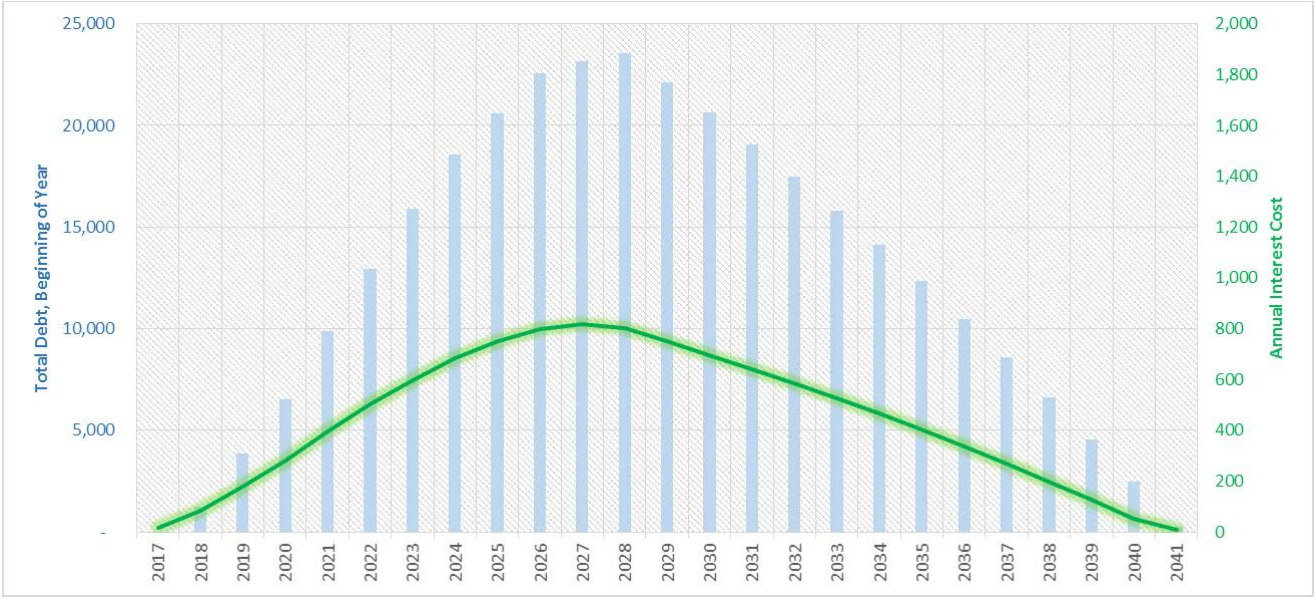
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

GA Financing: 5%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

From:	Ronald Kwan
To:	John Kim
Cc:	Bruno Amara; Salman Qadir; Gavin He
Subject:	RE: Interest cost deck
Date:	Monday, March 06, 2017 5:18:05 PM
Attachments:	GA Financing - Interest Cost Scenarios - Mar 1 Deck v5_Markup.pptx

Thanks John. Looks good. I had some suggested text to add.

Ron

From: John Kim
Sent: March-06-17 16:47
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Interest cost deck

Hi Ron,

Pls. see attached. It'd be good to emphasize that the tables are illustrative estimates.

Thanks,

John.

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

DRAFT

GA Financing:
Interest Rate Base Scenario & Sensitivities
March 1, 2017, Energy Deck Case

Corporate and Electricity Finance Division
March 6, 2017

DRAFT

GA Financing *(Calendar Year Basis) – (**Effective January 1, 2017**) March 1 Deck*

- The interest cost estimates are based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred, per its March 1 Cabinet submission.
  - GA deferral estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are slightly adjusted from Ministry of Energy amounts, to reflect in-year interest costs. Energy's base case interest costs shown were an assumed 5%, compounded monthly, calculated in the following year, with a term of 30-years (2047).

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.879 billion in 2027	$12.6 billion	2042 (25-year term)
4.2%	$1.1 billion in 2027	$17.4 billion	2044 (27-year term)
5.0%	$1.4 billion in 2028	$25.1 billion	2047 (30-year term)

Total GA deferral amount being financed is approximately $20.3 billion (plus deferred, capitalised interest, that can increase peak debt to about $28 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

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GA Financing *(Calendar Year Basis) – (**Effective July 1, 2017**)* *March 1 Deck*

- Ministry of Energy modelling estimated provided have been based on a full-year of GA deferral in 2017. Annual and cumulative interest and debt estimates would be sensitive to an in-year start date of, e.g., July 1, 2017, as below.
  - Otherwise, as before, modelling is based on Ministry of Energy estimates of the Global Adjustment cost amounts to be deferred in its March 1, 2017, Cabinet Submission.
  - GA deferral cost estimates are subject to updates from the Ministry of Energy.
  - Actual annual and cumulative interest costs are very sensitive to actual borrowing rates. Table below is illustrative.
  - Sensitivities shown on lower interest rates assume faster debt pay down. Alternatively, pay down could be stretched out, but would result in relatively higher cumulative interest costs than shown for that interest rate.
- Interest cost estimates are adjusted from Ministry of Energy amounts, to reflect in-year interest costs and an assumed July 1, 2017 implementation date. Half-a-year of reduced deferred GA significantly reduces estimated cumulative interest costs.

Interest Rate	Peak Annual Interest Cost	Total Life-cycle Accumulated Interest Costs	Term (Approximate)
3.5%	$0.817 billion in 2027	$11 billion	2041 (24-year term)
4.2%	$1.0 billion in 2027	$14.9 billion	2042 (25-year term)
5.0%	$1.3 billion in 2028	$21.0 billion	2045 (28-year term)

Total GA deferral amount being financed is approximately $19.1 billion (plus deferred, capitalised interest, that can increase peak debt to about $26 bn under the 5% scenario.

Base Scenario – *5% Interest Rate* with GA draw downs occurring on an equal monthly basis.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%. Interest Cost in 2017 adjusted to represent implementation in July 2017.
2 Higher interest rates results in extended the term of the financing. It is assumed that a cap of $2.242 bn above the true cost of GA in any given year is continued to be applied to repay any remaining debt. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period. In this Scenario, the term would be extended to Year 2056.

APPENDIX

Effective Date: January 1, 2017

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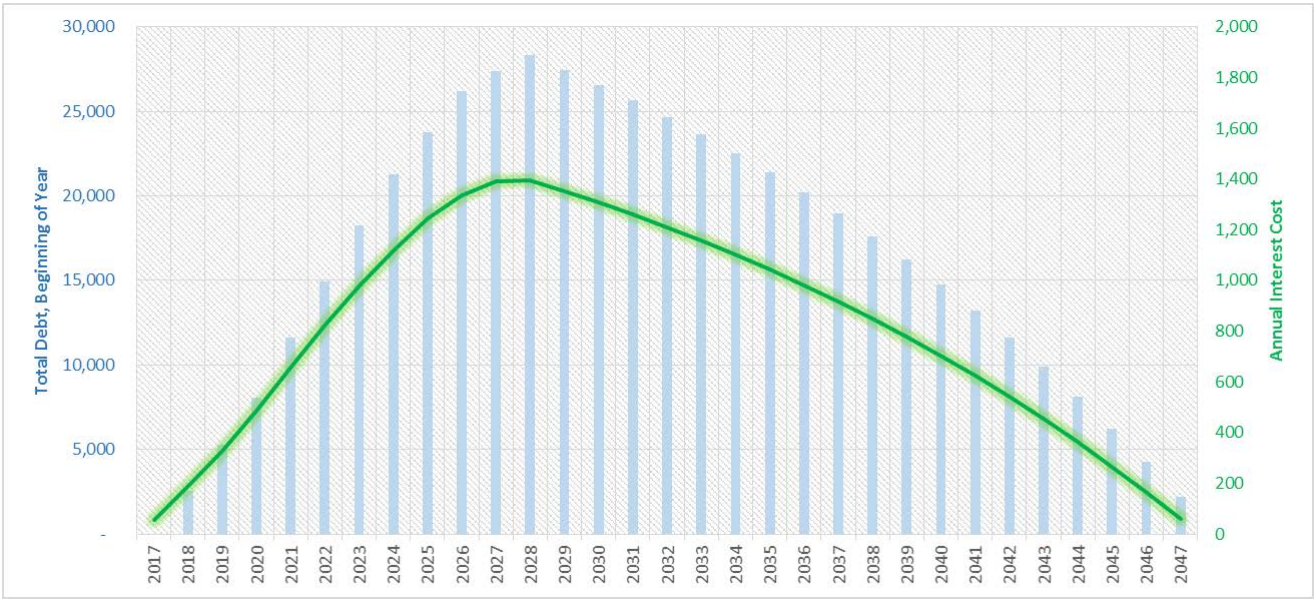
GA Financing (Base, 5%)

(Calendar Year Basis)
*(**Effective January 1, 2017**)* *March 1 Deck*



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.4B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655
Annual Interest Cost	58	189	327	485	658	822	980	1,120	1,244	1,337	1,389	1,396	1,353	1,307	1,260	1,209
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,559	5,256	8,084	11,643	14,961	18,237	21,255	23,761	26,215	27,349	28,305	27,460	26,571	25,637	24,655	23,622

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	23,622	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	
Annual Interest Cost	1,156	1,101	1,043	981	917	849	778	703	624	541	454	363	267	166	60	**25,137**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	
Accumulated debt in present year	22,537	21,397	20,198	18,937	17,613	16,220	14,756	13,218	11,600	9,900	8,113	6,234	4,260	2,184	2	

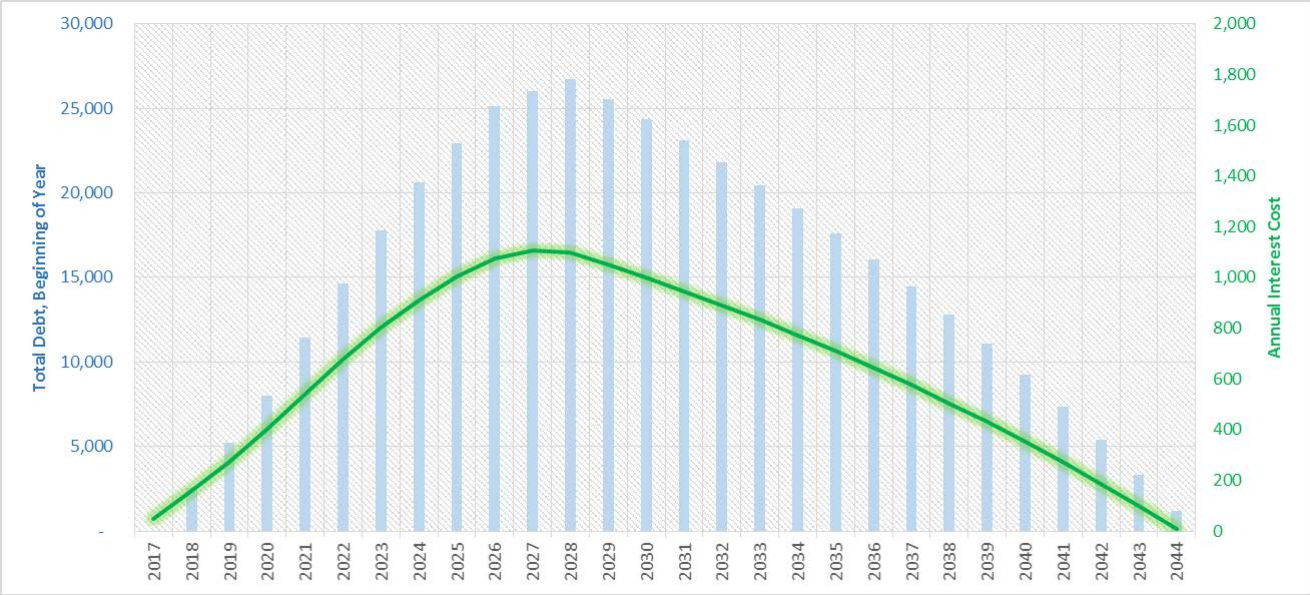
Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

DRAFT

GA Financing: 4.2%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1.1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821
Annual Interest Cost	49	158	272	402	543	676	802	911	1,006	1,073	1,106	1,099	1,050	999	946	891
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,549	5,215	7,988	11,465	14,667	17,797	20,637	22,933	25,149	26,019	26,692	25,550	24,358	23,116	21,821	20,470

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,470	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	
Annual Interest Cost	833	772	710	644	576	504	430	352	271	187	99	7	0	0	0	**17,367**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,199	0	0	0	
Accumulated debt in present year	19,061	17,592	16,060	14,462	12,797	11,059	9,248	7,358	5,388	3,334	1,191	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

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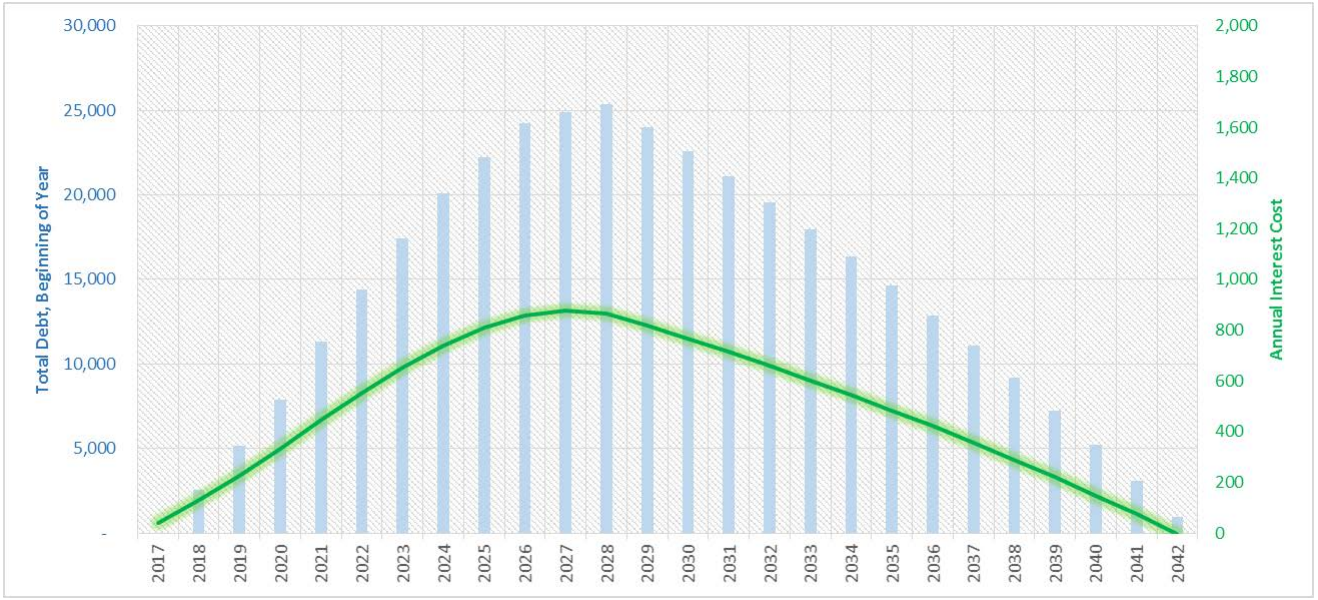
GA Financing: 3.5%

(Calendar Year Basis)
(Effective January 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $879M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557
Annual Interest Cost	41	131	225	331	445	553	653	738	811	860	879	866	817	766	714	659
Additional GA Debt Drawdown Required	2,501	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	2,541	5,180	7,906	11,311	14,417	17,423	20,113	22,237	24,258	24,915	25,361	23,985	22,561	21,085	19,557	17,975

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	17,975	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	
Annual Interest Cost	603	545	484	422	357	290	221	149	74	34	0	0	0	0	0	**12,665**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-980	0	0	0	0	0	
Accumulated debt in present year	16,336	14,639	12,882	11,063	9,178	7,227	5,206	3,113	946	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

APPENDIX

Effective Date: July 1, 2017

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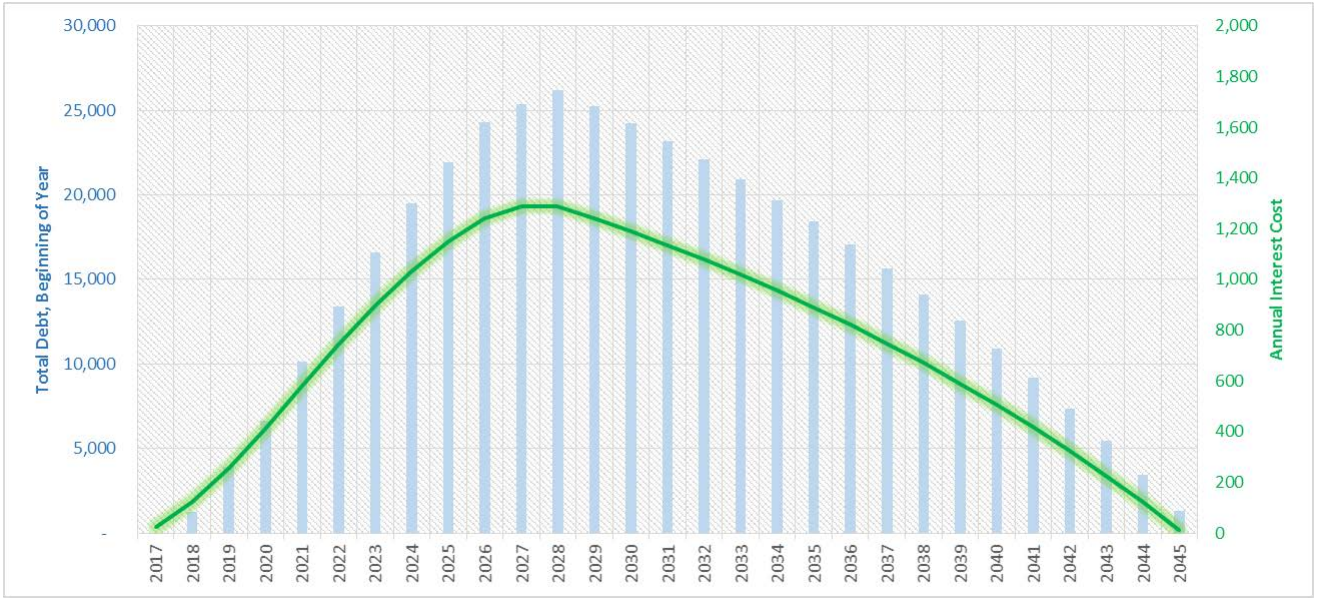
GA Financing (Base, 5%) *(Calendar Year Basis)* ***(Effective July 1, 2017)***

March 1 Deck



At an **Interest Rate of 5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2028 at approximately $1.3B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077
Annual Interest Cost	26	124	258	413	581	742	896	1,031	1,151	1,239	1,286	1,288	1,239	1,188	1,134	1,077
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,277	3,908	6,667	10,154	13,395	16,592	19,526	21,943	24,304	25,340	26,194	25,240	24,238	23,184	22,077	20,912

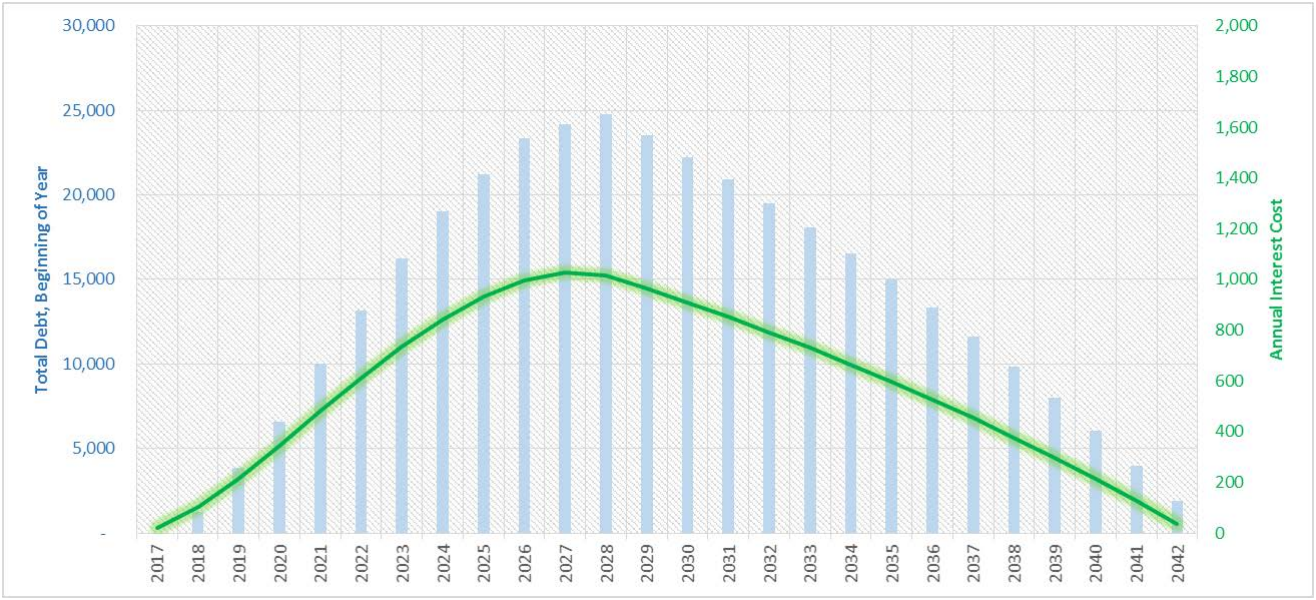
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	20,912	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	
Annual Interest Cost	1,018	955	889	820	748	671	591	506	417	324	226	123	15	0	0	**20,978**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,317	0	0	
Accumulated debt in present year	19,689	18,402	17,050	15,629	14,135	12,564	10,914	9,178	7,354	5,437	3,421	1,303	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 5%.
2 To forecast the repayment of the remaining balance, a cap of $2.242 bn above the true cost of GA in any given year is applied. Thus, every year a maximum of $2.242 bn is recovered by ratepayers until the debt is paid down, with interest still accumulating over this period.

GA Financing: 4.2%

(Calendar Year Basis)
(Effective July1, 2017)

March 1 Deck



At an **Interest Rate of 4.2%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $1B.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524
Annual Interest Cost	22	103	215	342	481	611	734	840	932	996	1,026	1,016	964	909	852	792
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,272	3,884	6,600	10,017	13,157	16,222	18,994	21,220	23,364	24,157	24,750	23,524	22,246	20,914	19,524	18,075

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	18,075	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	
Annual Interest Cost	730	666	598	528	454	378	298	215	128	38	0	0	0	0	0	**14,869**
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-1,933	0	0	0	0	0	
Accumulated debt in present year	16,564	14,988	13,344	11,630	9,843	7,979	6,036	4,009	1,895	0	0	0	0	0	0	

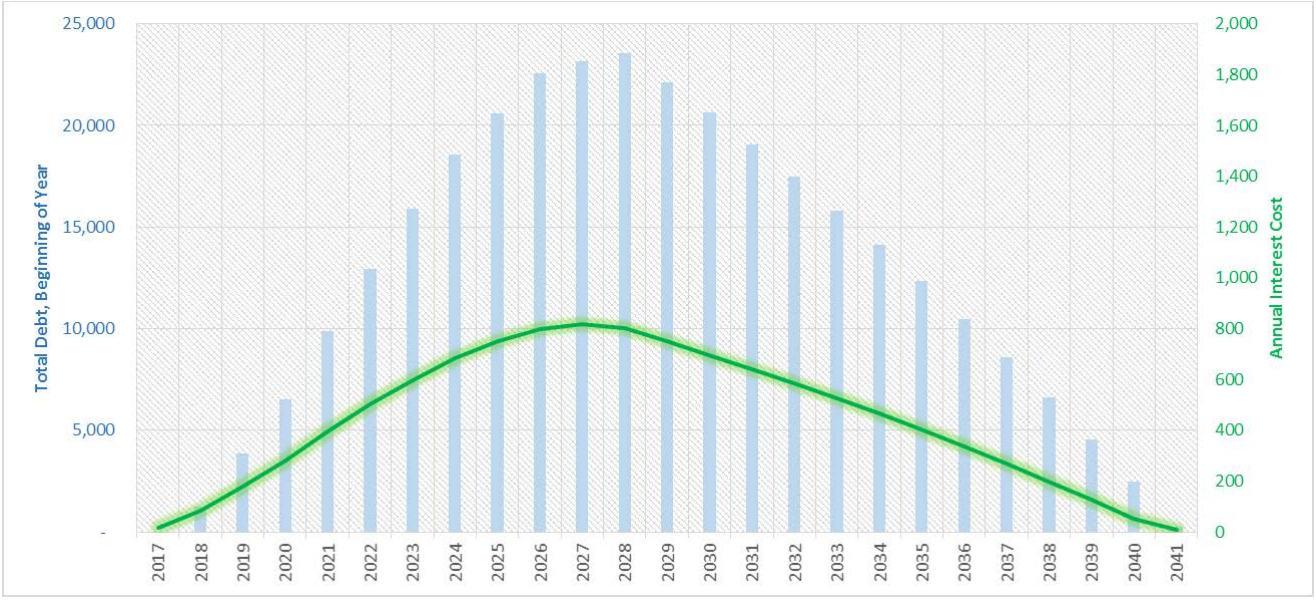
Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 4.2%.

DRAFT

GA Financing: 5%

(Calendar Year Basis)
(Effective July 1, 2017)

March 1 Deck



At an **Interest Rate of 3.5%** with GA draw downs occurring on an equal monthly basis.

Annual Interest Cost peaks in 2027 at approximately $817M.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Total Debt, Beginning of Year	-	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482
Annual Interest Cost	18	86	178	282	395	500	599	682	753	800	817	802	750	697	642	585
Additional GA Debt Drawdown Required	1,250	2,508	2,501	3,075	2,660	2,454	2,038	1,386	1,211	-203	-433	-2,242	-2,242	-2,242	-2,242	-2,242
Accumulated debt in present year	1,269	3,862	6,541	9,898	12,953	15,908	18,544	20,612	22,576	23,172	23,556	22,116	20,625	19,081	17,482	15,825

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	Total
Total Debt, Beginning of Year	15,825	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	
Annual Interest Cost	527	466	402	337	269	199	126	51	10	0	0	0	0	0	0	10,974
Additional GA Debt Drawdown Required	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-2,242	-280	0	0	0	0	0	0	
Accumulated debt in present year	14,111	12,335	10,495	8,591	6,618	4,576	2,461	271	0	0	0	0	0	0	0	

Actuals are subject to actual prices and actual interest rates.
1 Based on an interest rate of 3.5%.

From: Ronald Kwan
To: John Kim
Cc: Gavin He; Bruno Amara; Salman Qadir
Subject: RE: Interest cost deck
Date: Monday, March 06, 2017 5:47:13 PM

I cleaned up some typos.

Hi David, Chris,

Attached is a response to the request from the MO (see the email chain). MO had asked for a response ASAP (now EOD). (Doc internal PW)

I'd note that our analysis is a refinement from the Energy analysis. And that our modelling has not been shared with or reviewed by Energy.

Energy said in its CabSub that it was using a 5% interest rate, compounded monthly, but it's actual calculations were done using a proxy annual 5.12%, with interest costs assumed to occur in the following year. That means that the tables from the Energy decks have zero in-year interest costs in 2017, which would be awkward to show, and interest cost in each year calculated based on the beginning of the year debt balance only, not financing the in-year deferrals.

Staff have taken Energy's GA deferral amounts and calculated in-year interest costs based on even monthly GA deferral amounts (a simplification) to generate a table with interest costs starting in 2017. However, since interest costs in the proposed plan are deferred and capitalised, that changes the annual and accumulated debt amounts a bit from what Energy had estimated.

In both the revised and Energy cases, on a rounded basis, the cumulative interest cost is $25 bn, with an annual peak of $1.4 bn in the 5% interest rate scenario. The peak cumulative debt rounds in both cases to $28 bn, but is a little lower in Energy's table, and a little higher in the detailed modelling with interest compounding monthly.

Communications have also talked about implementation in the summer. As such, staff did some sensitivity modelling on a July 1, 2017, implementation date, effectively assuming only half the estimated deferral amount in 2017. The impact on estimated life-cycle cumulative interest costs is significant.

Also included are some interest rate sensitivities, which have significant impacts.

Ron

From: Ronald Kwan
Sent: March-06-17 17:40
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir

<Salman.Qadir@ofina.on.ca>
Subject: RE: Interest cost deck

Hi John,

A draft covering email.

Ron

Hi David, Chris,

Attached is a response to the request from the MO (see the email chain). MO had asked for a response ASAP (now (EOD). (Doc internal PW)

I'd note that our analysis is a refinement from the Energy analysis. And that our modelling has not been shared with or reviewed by Energy.

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Also included are some interest rate sensitivities, which are have significant impacts.

Ron

From: Gavin He
Sent: March-06-17 17:38

To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Interest cost deck

Hi Ron,

EFB is good with the edits. Attached is the clean copy.

Please let me know if you are good with the attached version going to DMO and MO.

Thanks,
Gavin He

From: Ronald Kwan
Sent: Monday, March 06, 2017 5:18 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Interest cost deck

Thanks John. Looks good. I had some suggested text to add.

Ron

From: John Kim
Sent: March-06-17 16:47
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Interest cost deck

Hi Ron,

Pls. see attached. It'd be good to emphasize that the tables are illustrative estimates.

Thanks,

John.

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority

Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From:	Bruno Amara
To:	John Kim
Subject:	RE: Latest Electricity TB/MBC assessment note
Date:	Friday, March 17, 2017 10:57:15 AM

Oh right. So Felix did not get back to you on that?

From: John Kim
Sent: Friday, March 17, 2017 10:56 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Latest Electricity TB/MBC assessment note

Fyi. This was my earlier email to him….

From: John Kim
Sent: Wednesday, March 01, 2017 2:39 PM
To: Felix Fung (MOF) <Felix.Fung@ontario.ca>
Cc: James Strang (MOF) <James.Strang@ontario.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Madeleine Morgenstern (PPAGS) <Madeleine.Morgenstern@ontario.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Latest Electricity TB/MBC assessment note

Hi Felix,

Hope all went reasonable well. Just looking for next steps…..we also have a couple of comments though may have missed the window.

On the table on p.4, Ron did point out that the column title the use of “savings” could be changed to the cumulative amount deferred as the initiative is more about deferring and financing. (But sorry that we are late on providing that comment.)

Another one, which is more of a question than a comment. It’s regarding the funding the deferred amount and 44% is to come from equity injection. Should the Minute, the current one, or a future Minute note that Energy gets approval for an operating asset and the amount? Would that be handled as part of the PRRT Minute at Document time or after legislation (if passed)? Not sure if this is clear, we can chat further another time but wanted to throw it out there.

John.

From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
Sent: Wednesday, March 01, 2017 9:51 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: James Strang (MOF) <James.Strang@ontario.ca>; Shajee Kathirgamanathan

<Shajee.Kathirgamanathan@ofina.on.ca>; Madeleine Morgenstern (PPAGS) <Madeleine.Morgenstern@ontario.ca>
Subject: FW: Latest Electricity TB/MBC assessment note

Hi John, please see Ron's email below - I think James raised the same issue with you moments ago after reviewing Energy's edits. Please send us the updated table as soon as you can (i.e. asap, as we need to print). Also let us know if you or Ron have any other edits.

Thanks,
Felix

From: MacIntyre, Kyle (TBS)
Sent: March-01-17 9:41 AM
To: Hughes, Karen (TBS); Duran-Schneider, Maria (TBS); Fung, Felix (TBS)
Cc: Laughton, Patrick (TBS); Hosick, Sarah (TBS); Arbabzadeh, Nina (TBS); Nelson, Dane (TBS); Simone, Nicole (TBS)
Subject: FW: Latest Electricity TB/MBC assessment note

FYI

From: McLean, David (MOF)
Sent: March-01-17 9:40 AM
To: MacIntyre, Kyle (TBS)
Subject: FW: Latest Electricity TB/MBC assessment note

FYI

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: March 1, 2017 9:38 AM
To: McLean, David (MOF); Chaput, Brandon (MOF); Pearce, Christopher (MOF); Mayman, Gadi (OFA); Schuurman, Tim (MOF)
Subject: RE: Latest Electricity TB/MBC assessment note

Thanks David.

Note that TBS has not fully aligned the note to the rapidly changing numbers in the Energy deck.

One example is on page 4. The total "savings" (really more "deferred GA cost recovery") and interest table (relabelled, numbers changed) on page 4 needs to be either revised or dropped, as option 1 has changed materially.

Ron

From: McLean, David (MOF) [mailto:David.McLean@ontario.ca]
Sent: March-01-17 08:41
To: Brandon Chaput (MOF) <Brandon.Chaput@ontario.ca>; Christopher Pearce (MOI)

<Christopher.Pearce@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Tim Schuurman (MOF) <Tim.Schuurman@ontario.ca>
Subject: FW: Latest Electricity TB/MBC assessment note

FYI

From: MacIntyre, Kyle (TBS)
Sent: March 1, 2017 8:30 AM
To: Foster, Robert (CAB); McLean, David (MOF)
Cc: Bromm, William (CAB); Kwamena, Boafoa (CAB)
Subject: Latest Electricity TB/MBC assessment note

Hi –

Here's the latest and greatest TB/MBC assessment note. We are taking the PoTB through the note now.

K.

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	Bruno Amara
To:	John Kim
Subject:	RE: Latest Electricity TB/MBC assessment note
Date:	Friday, March 17, 2017 11:02:28 AM

OK Thanks. I'll let you know what I hear back from Felix.

Bruno

From: John Kim
Sent: Friday, March 17, 2017 10:58 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: Latest Electricity TB/MBC assessment note

No it was right as it was going to TB/Cabinet and I'm sure nobody wanted or understood what next steps would be. I just asked as Ron asked me to do so but wasn't expecting a response.

From: Bruno Amara
Sent: Friday, March 17, 2017 10:57 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Latest Electricity TB/MBC assessment note

Oh right. So Felix did not get back to you on that?

From: John Kim
Sent: Friday, March 17, 2017 10:56 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
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Subject: FW: Latest Electricity TB/MBC assessment note

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(OFA); Schuurman, Tim (MOF)
Subject: RE: Latest Electricity TB/MBC assessment note

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Hi –

Here's the latest and greatest TB/MBC assessment note. We are taking the PoTB through the note now.

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From: John Kim
To: Gavin He
Subject: RE: MO Bi-weekly Agenda
Date: Sunday, April 02, 2017 11:27:31 AM

Looks great. I'd change "will pay" to "is to pay" but not critical.

From: Gavin He
Sent: Saturday, April 01, 2017 11:05 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi John,

As requested, I have added the H1 CIT item to the agenda (see #3), and I copied the equity injection points from the previous update (see #4), but I haven't been catching up on the note lately, so not sure what's the current status is. However, I made some updates based on the consolidated OFHP Matrix from March 27.

Regards,
Gavin He

From: John Kim
Sent: Saturday, April 01, 2017 7:20 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi Gavin,

I am debating whether to say something about GA deferral and equity injection…..could you add the s91.2 CIT based on the note Shajee did?

Other than that, I'm fine.

John.

From: Gavin He
Sent: April-01-17 3:59 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi John,

I have consolidated the updates from other Branches. Could you please add your item to the

attached version?

Please let me know if you need anything from me.

Thanks,
Gavin He

From: John Kim
Sent: Saturday, April 01, 2017 9:52 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: MO Bi-weekly Agenda

Ok, will try to look....planning to be in the office later today

On Apr 1, 2017, at 9:19 AM, Gavin He <Gavin.He@ofina.on.ca> wrote:

> No, I told Ron that I will send him the agenda today.
>
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> > I might add the GA deferral stuff but need to review the note first. Is it too late?
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> >
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> > >
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> > >
> > > Thanks,
> > >
> > > Gavin He
> > >
> > > ---
> > >
> > > **From:** Gavin He
> > > **Sent:** Tuesday, March 28, 2017 5:49 PM
> > > **To:** Francisco Chinchon; John Kim; Mara Bakic; Emily Kerr

Subject: MO Bi-weekly Agenda

Hi all,

The next MO bi-weekly meeting will be on Monday, April 3rd, 2017. To prepare for the meeting, could you please provide me with your annotated agenda by **EOD Thursday, March 30th, 2017** for Ron to review?

I have attached the previous agenda for your reference.

Please let me know if you have any questions.

Thanks,
Gavin He

From: Gavin He
To: John Kim
Subject: RE: MO Bi-weekly Agenda
Date: Saturday, April 01, 2017 11:04:55 PM
Attachments: Annotated Agenda MO April 3 2017_CEFD.docx

Hi John,

As requested, I have added the H1 CIT item to the agenda (see #3), and I copied the equity injection points from the previous update (see #4), but I haven't been catching up on the note lately, so not sure what's the current status is. However, I made some updates based on the consolidated OFHP Matrix from March 27.

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> > > **From:** Gavin He
> > > **Sent:** Tuesday, March 28, 2017 5:49 PM
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> > > **Subject:** MO Bi-weekly Agenda
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> > >
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> > >
> > > **th**

Thursday, March 30 , 2017 for Ron to review?

I have attached the previous agenda for your reference.

Please let me know if you have any questions.

Thanks,
Gavin He

ANNOTATED AGENDA
MO UPDATE: April 3, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Hydro One – Financial Benefit to OEFC (s. 50.3 of the *Electricity Act, 1998*):

Ministry of Finance is drafting a Treasury Board submission for the May 9 Treasury Board meeting to provide a financial benefit to the Ontario Electricity Financial Corporation (OEFC) in accordance with s. 50.3 of the *Electricity Act, 1998*. The submission will require the Minister's signed approval by April 18.

- Under the *Electricity Act*, the Ministry of Finance is to provide OEFC with a financial benefit when the Province sells Hydro One shares.
- This financial benefit is being paid as a result of the secondary offering of Hydro One shares in April 2016.
- The financial benefit payable to the OEFC is determined to be approximately $411M.
- The payment is fiscally neutral as the expense to the Ministry of Finance is fully offset against the receipt of revenue of OEFC on consolidation of OEFC in the Public Accounts.
- The benefit would accrue to OEFC in 2016-17 but would be administered in 2017-18 by remitting debt owed by OEFC to the Province.

2. Hydro One – Financial Benefit to OEFC (s. 91.2 of the *Electricity Act, 1998*):

The Ministry of Finance is drafting a Treasury Board submission requesting a fiscally-neutral Ministry of Finance increase of $24.8 million in 2016-17 to the statutory appropriation "Hydro One Inc., Provincial Corporate Tax Provision, the *Electricity Act, 1998*".

- As per section 91.2 of the *Electricity Act, 1998*, he Minister of Finance will pay the Ontario Electricity Financial Corporation (OEFC) an amount equal to tax payable under the *Taxation Act, 2007* (i.e., the provincial corporate income tax -- CIT) by HOI and its subsidiaries, to continue to help service and pay down the electricity sector stranded debt.
- The payment is fiscally neutral as the expense is fully offset against the receipt of revenue of OEFC on consolidation in the Public Accounts.

3. Hydro One – Paydown of Debt:

The Province has now paid to OEFC the proceeds related to the book value of shares sold in the April 2016 secondary offering.

- The proceeds, totalling about $1.3 billion, have been paid to OEFC to pay down the Province's debt and other payables with OEFC.

- This payment is part of the government's commitment to using proceeds from broadening Hydro One ownership to pay down a targeted $5 billion in debt.
- This follows from the Province's payment to OEFC earlier in 2016-17 of about $1.1 billion in proceeds related to the book value of shares sold in November 2015.
- These amounts are also in addition to the $800 million special dividend received by the Province prior to the Hydro One IPO that was used to pay down debt and other payables with OEFC in 2015-16.

4. Ontario Fair Hydro Plan – Equity Injection:

Staff from CEFD, OFA capital markets, Ministry of Finance, and OPG continue to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The CEFD and EIGS staff will be to establish clarity and steps required on the Provincial approvals for the equity injection; however, additional questions were raised during the discussion:
    - How long will IESO hold short term liability (weeks/months)?
    - When and how frequently will OPG purchase the asset from IESO?
    - OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc)?
- A few action items came out from the working group meeting:
    - OPG to continue to work with lead banks / rating agencies / OFA on financing issues
    - OPG to confirm accounting if OFA were to act as lead order on borrowing
    - OPG to determine who will finance / hold the asset until it goes to the market
    - ESPD, IESO and OPG to continue discussions around refining refinancing modelling

5. Ontario Northland Transportation Commission – Request for Line of Credit

On March 13, 2017, the OFA was contacted by the Ministry of Northern Development and Mines (MNDM) with a request to discuss re-establishing a line of credit for ONTC.

- This request appears to be driven, at least in part, by the depletion of a self-insurance reserve fund due to train derailments in 2016/17. ONTC had been using this fund for working capital management, and without that money is facing pressure in financing its normal operations.
- On March 27, OFA staff spoke with staff from MNDM on the issue. MNDM explained that ONTC needed the line of credit to manage differences in timing between the incurring of expenses and receipt of its subsidies from MNDM.
- OFA staff explained that given the financial risks of ONTC's operations, including that ONTC is not self-sufficient on a cash basis, the OFA could only consider

offering a line of credit if MNDM were to guarantee payment, possibly through an intercept mechanism.

- MNDM committed to brief internally on the matter and report back to OFA on the discussions.
- ONTC is also going to Treasury Board in the next few months for a mandate review and approval of its three-year business plan. OFA staff conveyed to MNDM staff that approval for a line of credit would need to be provided alongside or after TB has approved these items.

6. Algonquin Treaty Negotiations

- Ministry of Indigenous Relations and Reconciliation (MIRR) staff have contacted CEFD to request water rental charge information for hydro facilities located on Algonquin lands.
    - MIRR is planning on going to Cabinet including to seek authority to,
        - Negotiate a treaty to settle the Algonquin Land Claim between Canada, Ontario and the Algonquins of Ontario.
        - Discuss Resource Revenue Sharing (RRS) in the mining, forestry, and waterpower sectors.
    - MIRR staff have indicated that RRS would be used as a negotiation tool for the purposes of finalizing a treaty.
- Staff are reviewing and will share information that can help inform MIRR's Cabinet submission, subject to MOF legal approval of sharing of water rental charge data (summarized as totals for the relevant facilities).
- Any water rental charges shared with Indigenous communities could have a fiscal impact if it is not accounted for in the fiscal plan.
    - Sharing water rentals may result in further requests to share these charges for other hydro stations. MIRR staff have suggested that any precedent would be limited since the proposed sharing of resource revenues in this case would be in the context of a treaty negotiation.

7. ALGP: Coral Rapids Conditional Offer Package

- Coral Rapids Power Corporation ("CRP"), wholly-owned by Taykwa Tagamou Nation ("TTN"), is seeking a loan guarantee under the ALGP. This loan would allow CRP to finance its investment in a partnership which was formed to own and operate the 28 MW Peter Sutherland Sr. Generating Station at a lower interest rate than the alternative (a loan from its partner).
- The conditional offer letter was approved and an OIC was obtained at the December 13, 2016 LRC meeting.
    - This application involves the interests of a Schedule 1 bank.

- The briefing package was sent to DMO the week of March 20 with an update the week of March 27 to address a proposed revision in the pledge agreement. Approval of this revision as soon as possible would allow for legal documentation to be finalized.
    - Sign off for execution of the loan guarantee within the next few business days would be ideal to ensure sufficient time for conditions precedent to be satisfied. Financial close is planned for April 10 so that the borrower can meet its equity contribution deadline.
    - If staff can facilitate an earlier closing it would likely be appreciated by the borrower. Staff are available for a briefing, if requested.

OTHER ISSUES

8. FAA Section 28 Modernization

- An OFA/MOF/TBS working group has developed options for modernizing s.28 of the FAA.
- Proposed amendments to FAA s.28 have been drafted to:
    (i) give the Minister of Finance or the President of Treasury Board the authority to prescribe in regulation public entities or classes of public entities that would be subject to s. 28; and
    (ii) give the LGIC the authority to make regulations to define terms used in section 28 that are not already defined in the Act.

9. College Class Exemption

- Proposed regulation as well as terms and conditions for the draft Binding Policy Directive for Colleges have been drafted.
- MAESD and OFA currently reviewing the s.28 approval process for financing transactions with a view to further streamlining the process.

10. Metrolinx Fuel Hedging

- Metrolinx is planning to hedge its fuel costs by entering into financial derivatives contracts with Canada's six largest banks. In order to do so, Metrolinx must obtain Minister of Finance approval of its amended investments by-law and a new borrowing by-law as well as s. 28 approval.
- A formal request from the Minister of Transportation to the Minister of Finance is forthcoming.

11. FSCO – Stelco Pension Issue

- As part of a transaction that will allow Stelco to come out of bankruptcy, the parent of Stelco, US Steel, has proposed a sale to Bedrock Industries. This sale limits Bedrock's exposure to the pension plan liabilities.
- The Superintendent of FSCO will temporarily be the nominal administrator of Stelco's 5 pension plans and will be responsible for the related 46 administrative contracts. As the Superintendent is also the regulator, he will subcontract this responsibility in a sole source contract to an administrator.
- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From:	John Kim
To:	Gavin He
Subject:	RE: MO Bi-weekly Agenda
Date:	Sunday, April 02, 2017 11:35:27 AM
Attachments:	Annotated Agenda MO April 3 2017_CEFD_Markup.docx

Added some edits to the equity injection part.

From: John Kim
Sent: Sunday, April 02, 2017 11:27 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Looks great. I'd change "will pay" to "is to pay" but not critical.

From: Gavin He
Sent: Saturday, April 01, 2017 11:05 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi John,

As requested, I have added the H1 CIT item to the agenda (see #3), and I copied the equity injection points from the previous update (see #4), but I haven't been catching up on the note lately, so not sure what's the current status is. However, I made some updates based on the consolidated OFHP Matrix from March 27.

Regards,
Gavin He

From: John Kim
Sent: Saturday, April 01, 2017 7:20 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi Gavin,

I am debating whether to say something about GA deferral and equity injection…..could you add the s91.2 CIT based on the note Shajee did?

Other than that, I'm fine.

John.

From: Gavin He

Sent: April-01-17 3:59 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: MO Bi-weekly Agenda

Hi John,

I have consolidated the updates from other Branches. Could you please add your item to the attached version?

Please let me know if you need anything from me.

Thanks,
Gavin He

From: John Kim
Sent: Saturday, April 01, 2017 9:52 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: MO Bi-weekly Agenda

Ok, will try to look....planning to be in the office later today

On Apr 1, 2017, at 9:19 AM, Gavin He <Gavin.He@ofina.on.ca> wrote:

> No, I told Ron that I will send him the agenda today.
>
> On Apr 1, 2017, at 09:18, John Kim <John.Kim@ofina.on.ca> wrote:
>
> > I might add the GA deferral stuff but need to review the note first. Is it too late?
> >
> > On Mar 31, 2017, at 11:53 PM, Gavin He <Gavin.He@ofina.on.ca> wrote:
> >
> > > Hi John,
> > >
> > > Are there any items you would like to include for Monday's bi-weekly meeting with MO?
> > >
> > > Thanks,

Gavin He

From: Gavin He
Sent: Tuesday, March 28, 2017 5:49 PM
To: Francisco Chinchon; John Kim; Mara Bakic; Emily Kerr
Subject: MO Bi-weekly Agenda

Hi all,

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- The assumption of these contracts by FSCO will require Treasury Board and Minister of Finance s.28 approval.

From: Bruno Amara
To: John Kim
Subject: RE: MOF - Energy compromise
Date: Thursday, April 20, 2017 4:46:59 PM

Think I looked him up. ENE Controller

-----Original Message-----
From: John Kim
Sent: Thursday, April 20, 2017 4:45 PM
To: 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: MOF - Energy compromise

FYI, and who is Asokan?

-----Original Message-----
From: Sadasivan, Asokan (MEDG/MRIS) [mailto:Asokan.Sadasivan@ontario.ca]
Sent: Wednesday, April 19, 2017 5:11 PM
To: John Psinas <John.Psinas@ofina.on.ca>
Cc: Bharat Patel (MOF) <Bharat.Patel3@ontario.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; Kevin Hwang <Kevin.Hwang@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Kate Johnstone (MCSS) <Kate.Johnstone@ontario.ca>; Tai An (ENERGY) <Tai.An@ontario.ca>; Pratima Gounden (ENERGY) <Pratima.Gounden@ontario.ca>
Subject: RE: MOF - Energy compromise

John,

Our understanding is that this is still evolving and hence, we are not in a position to comment at this moment.

Regards,

Asokan
416 902 2649

-----Original Message-----
From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: April 19, 2017 3:16 PM
To: Sadasivan, Asokan (MEDG/MRIS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: RE: MOF - Energy compromise

Asokan,

I just want to confirm that the Ministry of Energy will record the equity injection payments (likely on a monthly basis (tbd)) and subsequently record the shares received from OPG going forward. From what I understand, this is line with the Hydro 1 compromise, where new equity will be recorded on Energy's books and that Energy will take the lead in all aspects?

Thanks.

John

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From:	Sadasivan, Asokan (MEDG/MRIS)
To:	John Psinas
Cc:	Bharat Patel (MOF); Francisco Chinchon; John Kim; Bruno Amara; George Sakura; Kevin Hwang; Ken Kandeepan; Carlos Yep; Veinot, Cindy (TBS); Nadine Petsche (MOF); Kate Johnstone (MCSS); Tai An (ENERGY); Pratima Gounden (ENERGY)
Subject:	RE: MOF - Energy compromise
Date:	Wednesday, April 19, 2017 5:10:37 PM

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416 902 2649

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Cc:	Bharat Patel (MOF); Francisco Chinchon; John Kim; Bruno Amara; George Sakura; Kevin Hwang; Ken Kandeepan; Carlos Yep; Veinot, Cindy (TBS); Nadine Petsche (MOF)
Subject:	RE: MOF - Energy compromise
Date:	Wednesday, April 19, 2017 3:16:08 PM

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Thanks.

John

From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Subject: RE: MOF - Energy compromise
Date: Thursday, April 20, 2017 5:15:52 PM

Ok, good. I saw that in fact.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:09 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Re: MOF - Energy compromise

Thanks I connected with John Psinas today and let him know I was coordinating for ENE.

Asokan is ENE Controllership Branch - I've kept them in the loop but they aren't too involved in this and will defer to me to seek decisions/approvals on this stuff

Sent from my BlackBerry 10 smartphone on the Rogers network.
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Thanks.

John

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: John Kim
To: Bruno Amara
Subject: RE: MOF Legal
Date: Friday, March 31, 2017 9:34:48 AM

Sure, initially I thought the one Carlos mentioned but if different, then let's get some info.

Pls. engage anyone on the issue.

From: Bruno Amara
Sent: March-31-17 9:32 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: MOF Legal

Hi John

I just got a call from MOF Legal (Toby Whitfield – works for Malle Hanslep). They have been contacted by OFA (Opal Kandelas, Kelly Listoe) about engaging a financial advisor for the Province on the Equity injection. MoF legal is looking for more background and context. My plan will be to get them a draft today of the meeting note we are pulling together. I will also contact Carlos to see if he has more context around the request. It sounds like a different issue from the plan to get advice from a dealer on the borrowing structure for the IOPG Trust that was discussed.

Let me know if this sounds OK.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Adam Prokop
To:	John Kim
Cc:	Bruno Amara
Subject:	RE: Materials for Review draft OFHP legislation
Date:	Tuesday, April 04, 2017 3:44:11 PM
Attachments:	Legislation Draft - Ontario Fair Hydro Plan Act, 2017.docx

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Kind regards,

Adam Prokop

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Energy Supply Policy Division | Ministry of Energy
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E: Hilary.cox@ontario.ca

FAIR HYDRO PLAN LEGISLATION DRAFT REVIEW

Overview

A draft of the legislation proposed for the *Fair Hydro Plan Act, 2017* has been shared with OFA.

Legislation Proposals:

Electricity Act

- Suggests amending the *Electricity Act, 1998,* or create a new stand-alone energy statute.
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- Key terms include
    - *Financing Entity* – which is the legislation term for OPG Trust
    - *Replacement Event* – the event under which the market would want to replace an entity that has responsibility to take essential actions under the program; trigger event likely to be a breach of duty or insolvency.
    - *Transition Charge* – refers to the deferral repayments from ratepayers.
    - *Treasury Plan* – written plan prepared by OPG for the regulatory asset purchase and related financing.
    - *True-up Amount* – A provisions that allows for a catch-up for estimate-actual adjustments and to address consumer non-payment credit losses.
- Suggests to draft into legislation a promise by the Government not to impair the program.
- Have proposed defining a "*deferral customer*" who will be subject to the prescribed regulations; the deferral customer will be slightly different than RPP-eligible customers – a broader scope potentially.
    - There will be a "proxy" Toronto Hydro consumer whose bill will only be allowed to increase year-over-year according to rules prescribed in the new regulation.
    - *Staff comment:* seems that this class of consumer is being used as a benchmark.
- IESO would have the right to recover amounts from ratepayers.
    - Unclear if the Trust Board will be allowed to affect the recovery rates below the maximum limit, i.e., to have rates increase less than the maximum permitted under the act's smoothing parameters.
    - IESO would calculate the total amount of deferral financing that would be repayable for an applicable period.
    - IESO would next determine the repayments due from consumers.
    - IESO would inform each LDC of the amount of the deferral repayments for each consumer in the LDC's service territory to be included in the invoice.

- Legislation has not yet determined how the right of recovery from IESO will be assigned to another party (i.e., the sale of the regulatory asset to the *Financing Entity* and the related rights under it).
    - The legislation is drafted to have IESO collect from ratepayers the deferral and related financing/admin costs but have those be remitted to the *Financing Entity*.
    - There is still discussion on to whether or not IESO would be required to sell/assign the right, and when this right expires.
    - IESO has proposed legislation for the "regulatory asset" that would give IESO the ability to sell the right to collect deferral payments to the Financing Entity, with IESO collecting these payments on behalf of the Financing Entity.
- It has not been decided if the interest and administrative costs will be:
    - Simply the interest and financing costs passed from the ratepayers through IESO to ultimately OPG.
    - A reference rate that IESO would have to pay and may be different than the rates the authorized entity would have to pay; thus, giving OPG the ability to earn a profit.
    - A cap on the amount of profits the *Financing Entity* or OPG could make from the GA mechanisms.
- IESO would have to maintain several variance accounts, including separate accounts for the interest and administrative costs.
    - May be similar provisions requiring distributors and retailers to establish deferral accounts as well.
- Suggest having a provisions where that "if there is a change of law by the Government of Ontario that materially adversely affects the ability of the authorized entity to fully recover the assigned deferral account amounts, then repayment of those amounts will be accelerated and become immediately due and payable."
    - *Staff comment:* If enacted, could lead to massive rate increases depending on the timing of the change in law as the full deferred amounts collected to that point would be immediately due.
- The legislation states that deferral consumers will have a statutory obligation to the *Financing Entity* to pay its share of the deferral repayments (i.e., principal, interest and other financing costs), with OPG having the ability to sue consumers who do not pay.
    - The transition charges will be irrevocable.
- Further legislation proposes anti-avoidance:
    - Even if a consumer "leaves the grid" they would still be obligated to pay this amount.
    - Suggested that the proxy rate discussed above for a "representative" Toronto Hydro customer could be charged to a self-generating customer as a flat fee.
    - *Staff comment*: brings up the discussion on whether or not the obligations under this legislation should be considered akin to a tax.
- The *Financing Entity* will have the ability to sue LDCs for failing to properly calculate or invoice the financing repayments.

Electricity Act – OPG-related Amendments

- The act will be amended to include the purpose of the *Financing Entity*, its obligations and duties, and the financing requirements.
- Legislation would ensure that the pass-through amounts from the Financing Entity to OPG are only used to repay the debt and related costs.
- The Treasury plan will establish the basis for OPG making funding decisions – unclear if the OEB of MOF/OFA will play a role in reviewing the Treasury Plan, and the extent of its role.
- Refers to a Fair Allocation Plan which considers how the deferred GA costs should be collected from ratepayers.
    - Potential for there to be refunds to ratepayers who are considered to have paid more than their main share, at the Minister's discretion.

Ontario Energy Board Act Amendments

- The Ontario Energy Board act, 1998 may to be amended to ensure that the deferral and variance accounts from the Fair Hydro Plan are recognized in rate proceedings.
- Would also have to give the OEB the power to investing OPG and the Financing Entity for compliance with the legislation, including sanctions for non-compliance.
    - However, OEB would not be able to affect the irrevocability of the transition charges or the inability of the Province to interfere.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: Adam Prokop
To: John Kim
Cc: Bruno Amara
Subject: RE: Materials for Review draft OFHP legislation
Date: Tuesday, April 04, 2017 12:55:25 PM

Sure, on it now.

AP

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From: Adam Prokop
To: John Kim
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Subject: RE: Materials for Review draft OFHP legislation
Date: Tuesday, April 04, 2017 10:12:50 AM

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Date:	Tuesday, April 04, 2017 4:33:06 PM
Attachments:	Legislation Draft - Ontario Fair Hydro Plan Act 2017 V2.docx

With page number references attached.

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Not critical but do you mind putting page numbers where things are discussed? Is it possible??

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    - *Replacement Event* – the event under which the market would want to replace an entity that has responsibility to take essential actions under the program; trigger event likely to be a breach of duty or insolvency.
    - *Transition Charge* – refers to the deferral repayments from ratepayers.
    - *Treasury Plan* – written plan prepared by OPG for the regulatory asset purchase and related financing.
    - *True-up Amount* – A provisions that allows for a catch-up for estimate-actual adjustments and to address consumer non-payment credit losses.
- Suggests to draft into legislation a promise by the Government not to impair the program (p. 16).
- Have proposed defining a "*deferral customer*" who will be subject to the prescribed regulations; the deferral customer will be slightly different than RPP-eligible customers – a broader scope potentially (p. 4).
    - There will be a "proxy" Toronto Hydro consumer whose bill will only be allowed to increase year-over-year according to rules prescribed in the new regulation.
    - *Staff comment:* seems that this class of consumer is being used as a benchmark (p. 6).
- IESO would have the right to recover amounts from ratepayers (p. 11).
    - Unclear if the Trust Board will be allowed to affect the recovery rates below the maximum limit, i.e., to have rates increase less than the maximum permitted under the act's smoothing parameters.
    - IESO would calculate the total amount of deferral financing that would be repayable for an applicable period.
    - IESO would next determine the repayments due from consumers.
    - IESO would inform each LDC of the amount of the deferral repayments for each consumer in the LDC's service territory to be included in the invoice.

- Legislation has not yet determined how the right of recovery from IESO will be assigned to another party (i.e., the sale of the regulatory asset to the *Financing Entity* and the related rights under it).
    - The legislation is drafted to have IESO collect from ratepayers the deferral and related financing/admin costs but have those be remitted to the *Financing Entity*.
    - There is still discussion on to whether or not IESO would be required to sell/assign the right, and when this right expires. (p. 21)
    - IESO has proposed legislation for the "regulatory asset" that would give IESO the ability to sell the right to collect deferral payments to the Financing Entity, with IESO collecting these payments on behalf of the Financing Entity (p. 25).
- It has not been decided if the interest and administrative costs will be (p. 9):
    - Simply the interest and financing costs passed from the ratepayers through IESO to ultimately OPG.
    - A reference rate that IESO would have to pay and may be different than the rates the authorized entity would have to pay; thus, giving OPG the ability to earn a profit.
    - A cap on the amount of profits the *Financing Entity* or OPG could make from the GA mechanisms.
- IESO would have to maintain several variance accounts, including separate accounts for the interest and administrative costs.
    - May be similar provisions requiring distributors and retailers to establish deferral accounts as well. (p. 8)
- Suggest having a provisions where that "if there is a change of law by the Government of Ontario that materially adversely affects the ability of the authorized entity to fully recover the assigned deferral account amounts, then repayment of those amounts will be accelerated and become immediately due and payable" (p. 9).
    - *Staff comment:* If enacted, could lead to massive rate increases depending on the timing of the change in law as the full deferred amounts collected to that point would be immediately due.
- The legislation states that deferral consumers will have a statutory obligation to the *Financing Entity* to pay its share of the deferral repayments (i.e., principal, interest and other financing costs), with OPG having the ability to sue consumers who do not pay. (p. 10)
    - The transition charges will be irrevocable.
- Further legislation proposes anti-avoidance (p. 11):
    - Even if a consumer "leaves the grid" they would still be obligated to pay this amount.
    - Suggested that the proxy rate discussed above for a "representative" Toronto Hydro customer could be charged to a self-generating customer as a flat fee.
    - *Staff comment*: brings up the discussion on whether or not the obligations under this legislation should be considered akin to a tax.
- The *Financing Entity* will have the ability to sue LDCs for failing to properly calculate or invoice the financing repayments. (p. 12)

Electricity Act – OPG-related Amendments

- The act will be amended to include the purpose of the *Financing Entity*, its obligations and duties, and the financing requirements (p. 17).
- Legislation would ensure that the pass-through amounts from the Financing Entity to OPG are only used to repay the debt and related costs (p. 16).
- The Treasury plan will establish the basis for OPG making funding decisions – unclear if the OEB of MOF/OFA will play a role in reviewing the Treasury Plan, and the extent of its role.
- Refers to a Fair Allocation Plan which considers how the deferred GA costs should be collected from ratepayers.
    - Potential for there to be refunds to ratepayers who are considered to have paid more than their main share, at the Minister's discretion (p. 15).

Ontario Energy Board Act Amendments

- The Ontario Energy Board act, 1998 may to be amended to ensure that the deferral and variance accounts from the Fair Hydro Plan are recognized in rate proceedings. (p. 28)
- Would also have to give the OEB the power to investing OPG and the Financing Entity for compliance with the legislation, including sanctions for non-compliance. (p. 29)
    - However, OEB would not be able to affect the irrevocability of the transition charges or the inability of the Province to interfere.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From: Ronald Kwan
To: Bruno Amara
Cc: Gavin He; John Kim
Subject: RE: OEP Request - Fair Hydro Plan Details for impact analysis
Date: Friday, March 17, 2017 9:27:49 AM
Attachments: BN - Ontario Fair Hydro Plan Impacts v2_Markup.docx

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Thanks Bruno.

Just a few suggestions.

I don't think it needs to be run by Energy. It should be noted to OEP that it is sourced from Energy. I think it would be fair to note to OEP that EFB would be happy to facilitate discussions with Energy staff.

Ron

From: Bruno Amara
Sent: March-16-17 11:59 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: OEP Request - Fair Hydro Plan Details for impact analysis

Hi Ron

We had a preliminary discussion with OEP on information they would require for their impact analysis and have pulled together the attached. This provides some background information on programs and also some of the quantitative information. The quantitative information, in particular, is from Energy's cab sub. We include a paragraph reminding OEP to consider the government's commitment to balance in estimating economic. We agreed with OEP that this process might be iterative.

Can you advise on whether we should first run this by Energy with the context of the request. And any comments on the attached are welcome.

Thanks
Bruno

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

FAIR HYDRO PLAN

Customers / Residential

OREC:

- All residential consumers received an "8%" rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).

Global Adjustment Smoothing:

- Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs. The RPP also includes farms and low volume customers (up to 50 kW demand or 250,000 kilowatt-hours annually).
- The GA accounts for the ~~fixed costs, including capital costs, of running Ontario's generation fleet~~difference between contracted and regulated prices paid to generators compared to the hourly market clearing price, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to be able to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA, while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan, the long-term benefit of these assets to the electricity system is recognized and some of the ~~current~~ costs recovered in current rates would be~~are~~ deferred for recovery ~~ing to the~~in future rates. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to eligible ratepayers ~~remains~~would be lowered in the short term, reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact, by in effect. However, there will be an impact on provincial gross debt over time as various parties including the Province, will need to incur debt to finance the deferral of a portion ~~cover~~of current GA costs.

Please see last page for Energy's estimated ~~the~~ Annual Debt Schedule.

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OESP Expansion:

- Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

Existing OESP Credit Scales

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$30	$30	$34	$38	$42	$50	$50
$28,001 - $39,000			$30	$34	$38	$42	$50
$39,001 - $48,000					$30	$34	$38
$48,001 - $52,000							$30

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$45	$45	$50	$55	$60	$75	$75
$28,001 - $39,000			$45	$50	$55	$60	$75
$39,001 - $48,000					$45	$50	$55
$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$45	$45	$51	$57	$63	$75	$75
$28,001 - $39,000		$40	$45	$51	$57	$63	$75
$39,001 - $48,000			$38	$40	$45	$51	$57
$48,001 - $52,000					$35	$40	$45

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7 +
< $28,000	$68	$68	$75	$83	$90	$113	$113
$28,001 - $39,000		$60	$68	$75	$83	$90	$113
$39,001 - $48,000			$52	$60	$68	$75	$83
$48,001 - $52,000					$52	$60	$68

Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

RRRP Expansion:

- Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

First Nations On-Reserve Delivery Credit:

- Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

Staff Comments:

- Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.

Establishing a New Affordability Fund:

- Assist electricity customers who need financial assistance to undertake energy efficiency improvements. TB Approved $100 million for 2016-17 (not public).

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Staff Comments:

- This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
- Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

Industry

- **Expand the Industrial Conservation Initiative:** Enhance competitiveness for small manufacturers ~~and industrials~~. Reduce ICI eligibility to those with monthly peaks of 500 kilowatts, down from the current threshold of 1 megawatt.
  - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

Other

- **Improving Electricity Sector Efficiencies:** IESO's Market Renewal Initiatives are estimated to save the electricity sector (as a total) $200 million per year starting in 2021.

FISCAL COSTS

- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., t~~T~~he costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

- **Fiscal Costs of the RRRP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:** Existing OESP credit amounts assume ramp-up of take-up rates for the application-based program.

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Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 1~~4~~6, 2017

CONTAINS CONFIDENTIAL INFORMATION SUBMITTED TO CABINET

From:	Bruno Amara
To:	Ronald Kwan
Cc:	Gavin He; John Kim
Subject:	RE: OEP Request - Fair Hydro Plan Details for impact analysis
Date:	Friday, March 17, 2017 9:28:51 AM

OK, Thanks Ron.

From: Ronald Kwan
Sent: Friday, March 17, 2017 9:28 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: OEP Request - Fair Hydro Plan Details for impact analysis

Thanks Bruno.

Just a few suggestions.

I don't think it needs to be run by Energy. It should be noted to OEP that it is sourced from Energy. I think it would be fair to note to OEP that EFB would be happy to facilitate discussions with Energy staff.

Ron

From: Bruno Amara
Sent: March-16-17 11:59 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: OEP Request - Fair Hydro Plan Details for impact analysis

Hi Ron

We had a preliminary discussion with OEP on information they would require for their impact analysis and have pulled together the attached. This provides some background information on programs and also some of the quantitative information. The quantitative information, in particular, is from Energy's cab sub. We include a paragraph reminding OEP to consider the government's commitment to balance in estimating economic. We agreed with OEP that this process might be iterative.

Can you advise on whether we should first run this by Energy with the context of the request. And any comments on the attached are welcome.

Thanks
Bruno

From: Bruno Amara
To: John Kim
Cc: Shajee Kathirgamanathan
Subject: RE: OEP Request - Fair Hydro Plan Details
Date: Wednesday, March 15, 2017 4:46:37 PM

OK Thanks, it's mainly whether or not we need to check with ENE that I'm concerned about. Would it be Tim Christie that we would run this by?

From: John Kim
Sent: Wednesday, March 15, 2017 4:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OEP Request - Fair Hydro Plan Details

Sorry about the delay. I had forgotten and then reminded.

Looks good. I will leave to you how you want to proceed. His emails does indicate to keep him in the loop but otherwise seem to keep moving.

Thanks,

John.

From: Bruno Amara
Sent: Tuesday, March 14, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: FW: OEP Request - Fair Hydro Plan Details

Hi John

I've reviewed Shajee's note and I think this will help OEP get started with their impact analysis. A couple of items added from what you may have looked at yesterday to respond to Ron's comments in his email (attached). In our initial discussion with OEP we agreed that this may be an iterative process. I think that's more efficient for us, so OEP can come back with more specific requests as needed.

Ron did ask to be kept in the loop as we respond to this request. He also suggested that we share with Energy and see if they are fine with us providing the quantitative material (fiscal impacts and GA smoothing debt schedule) or if they wish to provide directly.

Bruno

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 10:55 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: OEP Request - Fair Hydro Plan Details

Hi John,

Attached is the request from OEP on the various impacts on the Fair Hydro Plan.

File also found here:
S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\CEFD Rate Mitigation Analysis\OEP Request\BN - Ontario Fair Hydro Plan Impacts v1.docx

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:53 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: OEP Request - Fair Hydro Plan Details

Sorry forgot to attach the BN.

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 3:52 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: OEP Request - Fair Hydro Plan Details

Hi Bruno,

I developed this BN to provide OEP staff with the info they'd need for the Fair Hydro Plan.

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Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Christie, Tim (ENERGY)
To: Bruno Amara
Cc: John Kim; Justin Malecki (ENERGY)
Subject: RE: OEP impact analysis
Date: Thursday, March 23, 2017 1:29:47 PM

Hi Bruno, a few answers.

1) Everything in that table with the exception of Social Programs is provided in the Cab Sub (the slide with the chart and tables below). I don't believe that the social programs have been forecasted beyond fiscal year 21-22 (they are handled out of a different division), but they are a fairly minor component of the plan.
2) We don't have a corresponding industrial rate forecast at the moment. The IESO is starting work on a revised forecast that would likely become the basis for the LTEP, but it is probably some weeks away.
3) You are correct, the tax basing of social programs all represent reduction on the regulatory line item on electricity bills.

If OEP has further questions you can forward them to us or they can contact us directly.

Tim

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March-23-17 12:15 PM
To: Christie, Tim (ENERGY)
Cc: Kim, John (OFA)
Subject: FW: OEP impact analysis

Hi Tim

To introduce myself first, my name is Bruno Amara and have recently joined the Electricity Finance Branch, OFA.

We were contacted in early March by the Office of Economic Policy, MoF who are undertaking an economic impact analysis of the Ontario Fair Hydro Plan. At the time, we provided them with the attached information (ENE password) . The data is sourced from the ENE cabinet submission. OEP has responded asking if some additional information is available. These are mainly with respect to the "Bill Forecasts" in attached table as follows:

1. Would it be possible to provide the "Bill Forecasts – Calendar Electricity Prices" table out to 2040? In particular the Total Bill line prior to the announced changes and impact of Tax Based Social Programs?

2. Similarly would we be able to provide a long-term electricity price forecast for the large industrial segment pre-changes?

3. OEP had also asked whether the "impact of tax-basing social programs" on the table were all reductions on electricity bills rather than off-bill cash transfers.

   With respect to #3, we assume the answer is Yes. But we're not sure if the Affordability Fund would be reflected in those numbers. Based on the cabinet submission we assume the later would be off-bill assistance for energy efficiency measures.

Please let us know how you wish to respond. We can provide the appropriate contacts if you wish to respond directly to OEP.

Thanks
Bruno Amara

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Bruno Amara
To: John Kim
Subject: RE: OEP impact analysis
Date: Thursday, March 23, 2017 12:05:03 PM

OK thx

From: John Kim
Sent: Thursday, March 23, 2017 12:04 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: OEP impact analysis

Hi Bruno,

Given Ron's previous response, pls. send to Tim.

If needed, we can engage Ron.

Thanks,

John.

From: Bruno Amara
Sent: Thursday, March 23, 2017 11:58 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: OEP impact analysis

Hi John

OEP has some follow-up requests for their impact analysis exercise. The answer would, for the most part, need to come from ENE. Below is a draft email to Tim Christie (ENE). Let me know if you have any comments. Also let me know whom you prefer it to be sent by i.e, you, Dir. to Dir., or me, or EA to EA etc. As you may recall Ron had OK'd the initial sharing of information and noted that we could offer to facilitate discussions with ENE.

Thanks
Bruno

Hi..

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Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From:	Bruno Amara
To:	Tim Christie (ENERGY)
Cc:	John Kim; Justin Malecki (ENERGY)
Subject:	RE: OEP impact analysis
Date:	Thursday, March 23, 2017 1:32:50 PM

Hi Tim,

OK, thanks for the quick response.

Bruno

From: Christie, Tim (ENERGY) [mailto:Tim.Christie@ontario.ca]
Sent: Thursday, March 23, 2017 1:29 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Justin Malecki (ENERGY) <Justin.Malecki@ontario.ca>
Subject: RE: OEP impact analysis

Hi Bruno, a few answers.

1) Everything in that table with the exception of Social Programs is provided in the Cab Sub (the slide with the chart and tables below). I don't believe that the social programs have been forecasted beyond fiscal year 21-22 (they are handled out of a different division), but they are a fairly minor component of the plan.
2) We don't have a corresponding industrial rate forecast at the moment. The IESO is starting work on a revised forecast that would likely become the basis for the LTEP, but it is probably some weeks away.
3) You are correct, the tax basing of social programs all represent reduction on the regulatory line item on electricity bills.

If OEP has further questions you can forward them to us or they can contact us directly.

Tim

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March-23-17 12:15 PM
To: Christie, Tim (ENERGY)
Cc: Kim, John (OFA)
Subject: FW: OEP impact analysis

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Please let us know how you wish to respond. We can provide the appropriate contacts if you wish to respond directly to OEP.

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Bruno Amara

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Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Shajee Kathirgamanathan
To: "Hunter, Robert A. (ENERGY)"
Cc: John Kim; Gavin He
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date: Monday, March 13, 2017 3:18:49 PM

Hi Robert,

Thanks for the follow up.

We're sending it up the line. Hope to send it back your way soon.

Cheers,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 13, 2017 12:18 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Fyi.

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Monday, March 13, 2017 12:17 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Good afternoon John,

I am following up on the status of this MOU between the Ministry of Energy and the Ontario Financing Authority regarding the Ontario Rebate for Electricity Consumers (OREC). Has this document been signed and approved by the OFA?

If so, can you please send a scanned copy of the approved Memorandum back to the Ministry of Energy?

Thank you,

-Robert
(416) 325-6899

From: Hunter, Robert A. (ENERGY)
Sent: February-16-17 12:56 PM
To: Kim, John (OFA)
Cc: Chander, Sunita (ENERGY)
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hello,

Please find attached the Ontario Rebate for Electricity Consumers Memorandum of Understanding between the Ontario Financing Authority and the Ministry of Energy for you signature.

After you have approved and signed this document, please send a scanned copy back to the Ministry of Energy, and keep a copy for your records.

Thank you,

Robert Hunter
Policy Advisor – Smart Grid Fund

Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

From:	John Kim
To:	Gavin He
Cc:	Shajee Kathirgamanathan
Subject:	RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Monday, March 13, 2017 3:16:48 PM

Could Shajee let Robert know it's in the works? If Gavin does, it's ADMO so I'd rather avoid that.

From: Gavin He
Sent: Monday, March 13, 2017 3:16 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hi John,

Sure, I will put a package together for him to sign.

Regards,
Gavin He

From: John Kim
Sent: Monday, March 13, 2017 3:16 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Thanks, let's get Ron to execute the MOU. I'd put both the PDF and this version in front of him so he could see what have changed.

From: Gavin He
Sent: Monday, March 13, 2017 3:13 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hi John,

I have tracked the changes in this final signed version from the latest version we worked on.

Regards,
Gavin He

From: John Kim
Sent: Monday, March 13, 2017 12:18 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Fyi.

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Monday, March 13, 2017 12:17 PM
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Thank you,

Robert Hunter
Policy Advisor – Smart Grid Fund

Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

From: Gavin He
To: John Kim
Cc: Shajee Kathirgamanathan
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date: Monday, March 13, 2017 3:16:12 PM

Hi John,

Sure, I will put a package together for him to sign.

Regards,
Gavin He

From: John Kim
Sent: Monday, March 13, 2017 3:16 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

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Sent: Monday, March 13, 2017 3:13 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

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Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

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Email: robert.a.hunter@ontario.ca

From:	John Kim
To:	Gavin He
Cc:	Shajee Kathirgamanathan
Subject:	RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Monday, March 13, 2017 3:15:33 PM

Thanks, let's get Ron to execute the MOU. I'd put both the PDF and this version in front of him so he could see what have changed.

From: Gavin He
Sent: Monday, March 13, 2017 3:13 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

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Phone: (416) 325-6899
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From:	Gavin He
To:	John Kim
Cc:	Shajee Kathirgamanathan
Subject:	RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Monday, March 13, 2017 3:12:39 PM
Attachments:	MOU - MoE OFA- DAP Nov 25 - track changes to final version signed.docx

Hi John,

I have tracked the changes in this final signed version from the latest version we worked on.

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Gavin He

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To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
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Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

Memorandum of Understanding
Relating to the
Ontario Rebate for Electricity Consumers

Dated: ~~, 2016~~January 1, 2017

Between:

Her Majesty the Queen in right of Ontario
as represented by the Minister of Energy ("**Ministry**")

And:

Ontario Financing Authority
an agency of the Province of Ontario (the "**OFA**")

Whereas:

1. Pursuant to the *Ontario Rebate for Electricity Consumers Act, 2016* and the regulations thereunder (the "Act"), certain consumers will be entitled to receive financial assistance~~, in this Memorandum of Understanding ("MOU") called~~ (the "Ontario Rebate for Electricity Consumers" or "OREC")~~,~~ in respect of the cost of electricity consumed by them commencing January 1, 2017;

2. Reimbursement for OREC provided to consumers and persons receiving invoices from unit sub-meter providers ("Reimbursement") will flow to specified electricity distributors, retailers and unit sub-metering providers ("Payment Recipients") through the Independent Electricity System Operator ("IESO") in accordance with the Act;

3. Under the Act, the Ministry will be required to pay amounts to the IESO on account of the Reimbursement (the "Payments") out of amounts appropriated by the Legislature for that purpose ("Appropriated Amount");

4. The Ministry considers it advisable for the OFA to make the Payments on behalf of the Ministry and the OFA has agreed to make the Payments on behalf of the Ministry;

5. The Ministry and the OFA have also agreed to work together on OREC cost forecasting;

6. The Ministry and the OFA wish to enter into this Memorandum of Understanding ("MOU") pursuant to clause 7 (3)(f) of the *Ministry of Energy Act* and subsection 30 (1) of the *Capital Investment Plan Act, 1993* to confirm their agreement regarding the terms on which the OFA will make the Payments and on which the Ministry and the OFA will work together on OREC cost forecasting.

Therefore:

The Ministry and the OFA agree as follows:

1. Payment Authorization

(i) The Ministry authorizes the OFA to make the Payments on behalf of the Ministry and the OFA agrees to make the Payments on behalf of the Ministry.

(ii) The Ministy shall ensure that the certificate under section 11.4 of the *Financial Administration Act* required for each of the Payments is obtained.

(iii) It is agreed by the Ministry and the OFA that the OFA is acting as agent, on behalf of the Ministry, for the purposes of

i. Transacting with the Ontario Shared Services "IFIS" system in order to access funds appropriated for the Ministry in respect of the Act, and

ii. Making the required Payments on behalf of the Ministry as further described in this MOU.

2. Payment Process

a) The Ministry has an account with the IESO under which the IESO will issue invoices to the Ministry for the Payments. The IESO will provide the Ministry with access to these invoices by giving the Ministry access to a secure IESO portal containing these invoices ("IESO Portal").

b) The Ministry will take all necessary steps to provide the OFA with access to the IESO Portal so that the OFA will have access to each IESO invoice to the Ministry, at the same time the IESO issues the invoice to the Ministry.

c) The OFA will make the Payments on behalf of the Ministry, in the amount of the IESO invoices.

d) The Payments will be made in accordance with the IESO Market Rules and IESO Manuals for settlements and billing of market participants, as amended from time to time.

e) The Payments will be made from the Consolidated Revenue Fund and the amount of each Payment will be entered by the OFA into the Province's IFIS system under a pre-defined Ministry account immediately upon the completion of the Payment or shortly thereafter.

3. Reporting Requirements and Records

a) The OFA will deliver a notice by e-mail to the Ministry's contact person to confirm the completion of each Payment in the amount of the IESO invoice.

b) The OFA will keep and maintain all records related to the OREC for a period of seven (7) years, and will provide the Ministry with electronic copies (or paper copies, if requested by the Ministry) of such of those records as the Ministry may request from time to time.

c) The requirements under this section shall survive any termination of the MOU.

d) The Public Accounts, Volume 3 reporting related to the Payments will be performed by the Ministry.

4. OREC Cost Forecasting

a) The Ministry and the OFA will work together to prepare and review cost forecasts, estimates, and analysis related to the OREC.

b) The Ministry will provide to the OFA all IESO invoices and settlement statements relating to the OREC, and any reports by OREC ~~transfer~~ Ppayment Rrecipients ~~(e.g. Local Distribution Companies, retailers, and unit sub-metering providers)~~ to the IESO, that are received by the Ministry. This includes providing electronic portal access to data and reports by OREC transfer payment recipients expected to be provided through an electronic portal reporting process.

c) The OFA and the Ministry will collaborate to prepare fiscal year cost estimates and monthly cashflow estimates for OREC.

d) The OFA and the Ministry will ensure senior management in their respective organizations are briefed and updated on the OREC forecasting on a regular basis to ensure there is mutual understanding and agreement on the forecasts.

e) The Ministry and the OFA acknowledge and agree that the actual costs of OREC may not be the same as the forecasted costs, and the OFA bears no liability for any differences between the forecast and actual costs of OREC, nor does the OFA have any responsibility for any application to Treasury Board for the appropriated amount or for a change in the appropriated amount for OREC.

5. Limited Role of the OFA

The OFA will only be responsible for making the Payments in accordance with section 2 and assisting in OREC cost forecasting in accordance with section 4. For greater clarity, the OFA will not be responsible for auditing or otherwise verifying the correctness of the IESO invoices, monitoring the IESO's application of the Payments, monitoring the balance from time to time of the Appropriated Amount, or ensuring the Appropriated Amount is sufficient.

6. Review and Termination

a) The Ministry and the OFA will review this MOU annually.

b) This MOU may be terminated by either party at any time, on 90 days notice.

c) Upon termination of this MOU, the OFA will cease to make any Payments.

d) The parties will cooperate to help to ensure a smooth transition of the payment function upon termination.

7. No Service Charges

The OFA will not charge the Ministry for the OFA's services or for its disbursements or other expenses incurred under this MOU.

8. Contacts

a) Each party shall designate a member of its staff to be a contact person for the purposes of administering this MOU.

b) As of the date of this MOU the OFA's contact person is:

John Kim
Tel: (416) 212-6996
email: john.kim@ofina.on.ca

c) As of the date of this MOU the Ministry's contact person is:

Robert Burns, Chief Administrative Officer & Assistant Deputy Minister, Corporate Services Division
Tel: 416-327-3682
email: robert.burns@ontario.ca

d) Either party may designate a different member of its staff as its contact person by providing notice to the other party in accordance with section 9.

9. Notice

a) Any notice under this MOU shall be in writing and shall be deemed given when delivered by hand or email, and addressed to the party's contact person.

b) In the case of the OFA, the addresses for notice are:
Hand Delivery:
Ontario Financing Authority
Suite 1400
1 Dundas St. W.
Toronto, ON M7A 1Y7
Attention: John Kim
email: john.kim@ofina.on.ca

c) In the case of the Ministry, the addresses for notice are:

Hand Delivery:
Ministry of Energy, Corporate Services Division
4th Floor, ~~77 Grenville~~56 Wellesley St.
~~7th Floor~~
Toronto, ON M7A 2E7~~C1~~
Attention: Robert Burns, Chief Administrative Officer & Assistant Deputy Minister
email: Robert.burns@ontario.ca

10. Execution

The parties have executed this MOU, effective as of the date first above written.

Her Majesty the Queen in right of Ontario
as represented by the Minister of Energy

by:_____

Name:

Title:

Ontario Financing Authority

by:_____

Name: Ronald Kwan

Title: Assistant Deputy Minister
Corporate and Electricity Finance Division
Ontario Financing Authority

From: Gavin He
To: John Kim
Cc: Bruno Amara; Shajee Kathirgamanathan
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date: Thursday, March 09, 2017 4:07:52 PM

Hi John,

It seems that they have captured most of our edits in the latest version that we reviewed, and I didn't see any material changes in the signed version either.

Thanks,
Gavin He

From: Shajee Kathirgamanathan
Sent: Thursday, March 09, 2017 3:44 PM
To: John Kim <John.Kim@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

I don't think I have.

For reference, I believe the Draft MOUs are saved here: S:\Users\CEF\Hydro 2016\Electricity Prices\Mitigation -- Energy\MOU - OFA-MOE Couldn't find anything saved in the Hydro 2017 folders.

In anycase, it looks fine to me. Would they have a hard copy we'd need Ron to sign.

I've saved the file for our records here: S:\Users\CEF\Hydro 2017\Electricity Prices\OREC\MOU

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Thursday, March 09, 2017 3:18 PM
To: Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

You've seen this before, right?

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Thursday, February 16, 2017 12:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hello,

Please find attached the Ontario Rebate for Electricity Consumers Memorandum of Understanding between the Ontario Financing Authority and the Ministry of Energy for you signature.

After you have approved and signed this document, please send a scanned copy back to the Ministry of Energy, and keep a copy for your records.

Thank you,

Robert Hunter
Policy Advisor – Smart Grid Fund

Ministry of Energy: Distribution and Agency Policy Branch
77 Grenville Street, 6th Floor
Toronto, ON M7A 2C1
Phone: (416) 325-6899
Email: robert.a.hunter@ontario.ca

From: Shajee Kathirgamanathan
To: John Kim; Gavin He
Cc: Bruno Amara
Subject: RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date: Thursday, March 09, 2017 3:43:32 PM

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From:	John Kim
To:	Gavin He; Salman Qadir
Cc:	Bruno Amara
Subject:	RE: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU
Date:	Thursday, April 20, 2017 7:04:29 PM

Yup, that's the practice.

From: Gavin He
Sent: Thursday, April 20, 2017 7:02 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: OFA-ENERGY Ontario Rebate for Electricity Consumers MOU

Hi Salman,

Please find attached a scanned copy of the MOU signed by Ron. I saved it under below folder as well:

S:\Users\CEF\Hydro 2017\Electricity Prices\OREC\MOU

Does OFA Legal keep the original?

Thanks,
Gavin He

From: Emily Kerr
To: John Kim
Subject: RE: OFHP Update
Date: Thursday, April 06, 2017 4:23:37 PM

Hi John,

Here are some comments/highlights from the OESP/RRRP/FN rate/Affordability Fund sections of the material. Also, a comment on Ron's note about non-bypassability.

- The comment on non-bypassability does have a question mark. So, I suppose it has not been determined whether consumers exiting the system would be required to make a payment. Although, it is still under consideration.

RRRP

- Requires legislation. TBD if regulations are also required.
- Since the existing RRRP framework (ratepayer funded) would remain in place for Algoma and remotes, the implementation document notes that separation of the RRRP and broader distribution rate protection into separate programs.
- Timing / next steps:
  - A report back to TB/MBC on May 1, 2017 is TBD.
  - Implementation is planned for fall 2017 (per Cabinet minute).

OESP

- Requires legislation and regulation changes.
- Energy is continuing to work with MOF, OEB, CRA on OESP wet signature. I am not familiar with the term "wet signature" but I assume this point has to do with confirming that any increased OESP benefits would not be taxable.
- OEB decision this week expected on removing OESP from bills as of May 1. Energy would like to use OESP variance (approx. $100 million) to reduce current OESP charge to zero and continue funding existing program until government funding is established.
- It is noted that Energy needs to work with IESO/OEB/MOF on technical and governance structures needed to flow government funds to OESP.
- Timing / next steps:
  - A report back to TB/MBC on May 1, 2017 is TBD.
  - LRC on April 10 (document says 2016, but I assume they mean 2017).
  - Program in place in 2017 (per Cabinet minute).

FN On-Reserve Delivery Credit

- Requires legislation. TBD if regulations are also required.
- It is noted that Energy needs to work with IESO/OEB/MOF on technical and governance structures needed to flow government funds to the program.
- Timing / next steps:
  - Report back to TB/MBC by spring 2017 with final program details.
  - Program in place in 2017 (per Cabinet minute).

Affordability Fund

- Does not require legislative changes.
- Timing / next steps:
  - On March 23/24 a declaration of trust and transfer payment agreement were executed.
  - On March 30 funds were transferred to Computershare.
  - An Advisory Committee to recommend Board of Trustees by May 31, 2017. Computershare appoints full Board of Trustees.
  - June 2017: Trustees engage with IESO, OEB, others to define funding criteria and processes. Report back to TB/MBC with final program details.
  - Summer 2017: LDCs apply to Trust for funds.
  - Late 2017/early 2018: Energy may apply for additional funds through 18-19 PRRT based on performance and need. Energy was initially allocated $100 million for the fund. The initial request had been for $200 million.

From: Ronald Kwan
Sent: Thursday, April 06, 2017 3:16 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: OFHP Update

Hi,

Please review and provide comments, highlights.

Emily, note the "Non-bypassability (exiting the electricity system / going off grid)" comment.

BTW, I seem to have not yet signed the letter back to Northland. Is that right? Would you get me the signing package on that.

Thanks,
Ron

From: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>
Sent: April 6, 2017 10:35 AM
To: David McLean (MOF)
Cc: Nancy Kennedy (MOHLTC); Gadi Mayman; Ronald Kwan
Subject: OFHP Update

Hi Dave,

Please see the following update (and attached materials) from this morning's rate mitigation meeting:

GA Financing

Legal Update
Fair allocation plan (think of this as the line showing savings and costs to ratepayers associated with this program over time)
Province has set plan for deferrals for the first 4 years (25% and annual increases tied to inflation)
Need process (within pre-set parameters and input from OPG) to determine path for deferrals and recovery for subsequent years (5-30)
Originally viewed Province as taking a role in setting out this path
Feedback from market that Province should not be involved
Need to determine appropriate lead entity (e.g. OPG or IESO)
Need to be linked to life of underlying assets in order to mitigate constitutional risk
Consider 1-2 year refresh on the plan
Structure is still in flux
Treasury Plan
OPG Trust sets this plan
Limited oversight in order to ensure OPG Trust can raise $ in the market at a reasonable cost
Must fit within the limits set by fair allocation plan (but can vary under the cost curve depending on market and interest rate realities)
Once specific bonds issued, fair allocation plan cannot override
Role for OEB
Needs to be extremely limited in order to meet market requirements
However need to project consumer confidence
Options are currently under reivew
Collectability is a key point that requires a number of provisions in legislation including
Irrevocable charges
Role of LDCs, IESO in collections
Non-bypassability (exiting the electricity system / going off grid)
Provincial back-stops
Springing guarantees that arise in the event Province takes certain actions that erode value to bondholders
Need to be limited and contingent in order to meet accounting tests
Dealers considering whether this needs to be in legislation or in a side agreement
Want to make sure that it is narrowly focused in terms of triggering events to cover only material impacts and avoid unintended consequences (investors taking legal action)

- Over time as relevant policy changes are implemented, trustee may look to a 3rd party (e.g. opinion, ratings confirmation) to ensure that value of debt is not degraded

If Province takes on any of the debt, need to determine what can happen from an accounting perspective. Situations to review:
Temporary freeze on borrowing markets

Permanent impairment of OPG's ability to purchase a portion of the asset from IESO (in this case may need a guarantee from the Province)
Timeline for legislation
Pens down April 21
May 1st TB, LRC, Cab
May 4th introduction
Currently working from a Blakes document as a straw-person that would act as instructions to legislative counsel
Driving to timeline, very aggressive

OPG
Special committee of the board met last week
RBC, CIBC, Goldman included
Discussed this is much larger than past models
Imperative that this structure follows past transaction models
Also reviewed stress scenarios (interest rates are most impactful)
Shareholder letter
Providing to committee tomorrow and will share with government thereafter
Reviewing sub-debt attributes
Certain characteristics needed in order to support senior debt financing (most notably will take on longevity risk)
Characteristics of the sub-debt would drive pricing (not tied to Province's cost of funds; likely to be higher interest rate)
At minimum, want to ensure that OPG's earnings are higher to offset incremental IOD to the Province

OEB
Comfort letter from the Province is nearly ready, hopefully tomorrow
Balancing amount of information needed

IESO
Want to narrow issues to what is needed in legislation
Regulatory asset
Speaking with KPMG today
Meeting with ENE today to discuss business issues

Affordability Fund
Advisory committee established to recommend final trustees
Will start mid-month deliberations
By May 31
3 from LDCs and 2 from social services
Hydro One is providing logistical support

Social programs (OESP, FN Rate, RRRP)
Same timelines for approvals as GA
Lots of details to sort through in regulation once legislation in place

Give comfort to LDCs, IESO, Board in terms of what will be included in regulations in order for them to begin implementation

Appearance on Energy Financials:

Will have flexibility to flow funds between programs while ensuring transparncy (4 line items but not executive control on each)

ENE could move $ between programs without TBS approval

OESP: May 1 implementation of enhancements, OEB using up existing funds so no immediate draw on fiscal plan, working with social program ministries to assist with implementation, working with MoF / CRA to remove wet signature requirement

RRRP: plan to have in place by July 1 for 8 utilities; retro-active start as safety valve if needed for utilities with more limited capacity to move quickly

FN Rate: working to set up a meeting with COO to discuss options (for next week), Province does not want to be involved in choosing who is FN therefore plan to determine eligibility solely on the basis of geography

ICI

Expanded to include greenhouses

Need to meet 500kw threshold

Were already eligible at 1MW; therefore, not many that aren't already been captured

Seeking LRC regulatory approval April 10th

Working with CME, OCC on outreach campaigns on benefits of ICI and other conservation initiatives

Bill Presentment

Will not attempt to change the bill for July 1

- If try to be more aggressive on changes to the bill may jeopardize implementation

Want a larger re-work, look at all the constraints and regulations

- For example, reconsider changing name of "delivery"
- Timing: fall for re-design

In the interim, want an insert that shows %

AG

Walk through with ENE / MoF staff on April 19th

TBS will share technical materials in advance

FAO

Submitted materials last week

Will circle back to determine status

Thanks,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca

From: John Kim
To: Gavin He
Subject: RE: OPG Equity Injection Summary
Date: Thursday, March 16, 2017 7:57:33 PM
Attachments: Annotated Agenda MO March 20 2017_EFB_v1_Markup.docx

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Thanks Gavin….let's see if Ron wants to use these bullets.

John.

From: Gavin He
Sent: March-16-17 5:34 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

Hi John,

Please find attached the draft agenda for your review and comment.

Thanks,
Gavin He

From: John Kim
Sent: Thursday, March 16, 2017 4:51 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: OPG Equity Injection Summary

Would you mind basing your biweekly agenda in this? And send me?

Begin forwarded message:

> **From:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Date:** March 16, 2017 at 3:09:27 PM EDT
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>
> **Subject: RE: OPG Equity Injection Summary**
>
> Provided in note form.
>
> Kind regards,
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> **From:** Bruno Amara

Sent: Thursday, March 16, 2017 2:16 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

Thanks Adam

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Sent: Thursday, March 16, 2017 2:11 PM
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Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: OPG Equity Injection Summary

Hey Bruno,

Just a quick recap of the meeting today.

OPG Comments

- Suggesting that equity injection would take place after the legislation and trust structure in place.
- First introduction to legislation in April.
- May timeline for completion of all requirements, with a target of the reduction occurring on June or July bills.
- Ministry of Energy is focusing on the legislation.
- The OFA side will be working on the Provincial approvals for equity injection.
- Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
- Equity injection is meant to be as simple as possible – quarterly injections is being tabled with annual shareholder and board approval.
- Would likely need a ten-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
- Thus, seeking a type of “blanket approval” mechanism.
- Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.
- Special board meetings from OPG are likely to meet the May target.
- Recognizes that the scheduled timeline is a moving target.

Discussion Questions

- Is May a realistic timeline?
- How will the approval process work with OPG and Province; will it be timed with other annual approvals?
- The source of interim financing has not yet been determined.
- OFA needs to open discussion with TBS to determine what approvals are needed and what process should be implemented.
- There may be a conflict between the targeted irrevocability of the future revenues from ratepayers and the aspect of share redemption – a Provincial guarantee may be required.
- OFA would act as support to TBS.
- There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of shares in the subscription.
- What funding does OPG have available now, and what could be used for interim financing for OPG Trust? (They have $700M line of credit for Darlington refurbishment and general corporate purposes, and $1B revolving bank credit facility, both which have been untapped as of Dec 31, 2016. Short term credit of $460M only has $74M in availability.)

Overall, the meeting was very high level. A placeholder meeting will be scheduled for next week.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

ANNOTATED AGENDA
MO UPDATE: March 20, 2017

ELECTRICITY & ASSET OPTIMISATION RELATED ISSUES

1. Ontario Fair Hydro Plan – Equity Injection:

Staff from OEFC, OFA capital markets, Ministry of Finance, and OPG held a teleconference to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan.

- The Province has proposed refinancing a portion of the Global Adjustment costs over a longer time period for Regulated Price Plan eligible customers.
- The Province intends to introduce legislation to setup a special purpose vehicle, referred to herein as "OPG Trust", which would handle the deferral of the global adjustment as well as the eventual recovery of the deferred amount, along with financing and administration costs, from ratepayers.
- OPG Trust would be financed directly from the capital markets (51% of OPG Trust's capital structure) and 49% from loans from OPG. OPG would fund the majority of its loan to OPG Trust (44% of the capital structure) via an equity injection from the Province.
- OPG commented that:
    - Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
    - Would likely need a ~~ten~~multi-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
    - Timing is an issue; there may be a shortfall between funds received from the Province/Market and funds needed to purchase assets from IESO.
- The ~~OFA~~ CEFD and EIGS staff~~side~~ will be ~~working~~ to establish clarity and steps required on the Provincial approvals for the equity injection; however, additional questions were raised during the discussion:
    - How/What the approval process will be for OPG, OFA, TBS, and Province?
    - What ~~is~~ would be the source of interim financing if there are time lags?
    - ~~There may be a conflict between the targeted irrevocability of the future revenues from ratepayers and the aspect of share redemption.~~
    - ~~There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of shares in the subscription.~~

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To: John Kim
Subject: RE: OPG Equity Injection Summary
Date: Thursday, March 16, 2017 4:55:48 PM

Hi John,

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Regards,
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Overall, the meeting was very high level. A placeholder meeting will be scheduled for next week.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From:	Adam Prokop
To:	Bruno Amara
Cc:	John Kim
Subject:	RE: OPG Equity Injection Summary
Date:	Thursday, March 16, 2017 3:09:28 PM
Attachments:	Ontario Fair Hydro Plan Equity Injection - Initial Discussion.docx

Provided in note form.

Kind regards,

Adam Prokop

From: Bruno Amara
Sent: Thursday, March 16, 2017 2:16 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

Thanks Adam

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Sent: Thursday, March 16, 2017 2:11 PM
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Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
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Ontario Fair Hydro Plan – Equity Injection Discussion

Purpose

On March 16, 2017, members from OEFC, OFA capital markets, Ministry of Finance, and OPG held a teleconference to discuss the mechanics behind an equity injection between the Province and OPG to support the Ontario Fair Hydro Plan (OFHP). These members are part of a working group established to facilitate the financing process for the OFHP.

Context

In early March 2017, the Province announced Ontario's Fair Hydro Plan (OFHP) aimed at reducing electricity bills by 25 percent on average for all residential consumers in the province. The Province has proposed refinancing a portion of the Global Adjustment costs over a longer time period for Regulated Price Plan eligible customers (e.g., residential, farm, small businesses). According to the Plan, the Province intends to introduce legislation that would, if passed, enable the IESO and OPG to work together to undertake this financing.

The legislation is intended to setup a special purpose vehicle, referred to herein as "OPG Trust", which would handle the deferral of the global adjustment as well as the eventual recovery of the deferred amount, along with financing and administration costs, from ratepayers. OPG Trust would be financed directly from the capital markets (51% of OPG Trust's capital structure) and 49% from loans from OPG. OPG would fund the majority of its loan to OPG Trust (44% of the capital structure) via an equity injection from the Province.

The teleconference call held on March 16, 2017, set out the initial discussion for the working group to set objectives, relay relevant information that the parties had gathered, and determine what information is required to move forward.

Teleconference Call

OPG Comments

- Suggested that the equity injection would take place after the legislation and trust structure in place.
- First introduction to legislation is planned for April.
- May timeline for completion of all requirements, with a target of the reduction occurring on June or July bills.
- Ministry of Energy is focusing on the legislation.
- The OFA side will be working on the Provincial approvals for the equity injection.
- Interim financing might be required for OPG Trust, particularly for the 51% of the GA funded through capital markets.
- Equity injection is meant to be as simple as possible – quarterly injections is being tabled with annual shareholder and board approval.
- Would likely need a ten-year plan (requiring annual approval), with a description of the aggregate shares to be issued from time-to-time drafted in official documentation.
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- OFA would act as support to TBS.
- There are accounting considerations with the equity injections for the par value, additional paid-in capital, and number of shares in the subscription.
- What funding does OPG have available now, and what could be used for interim financing for OPG Trust? (Update – OPG has $700M line of credit for Darlington refurbishment and general corporate purposes, and $1B revolving bank credit facility which DBRS refers to as commercial paper, both which have been untapped as of Dec 31, 2016. Short term credit of $460M only has $74M in availability.)

The initial meeting was a general overview of the goals and requirements from the working group. A placeholder meeting will be scheduled for next week.

Prepared by:
Electricity Finance Branch
March 16, 2017

From:	Bruno Amara
To:	Adam Prokop
Cc:	John Kim; Salman Qadir; Gavin He; Shajee Kathirgamanathan
Subject:	RE: OPG Equity Injection Summary
Date:	Thursday, March 16, 2017 2:15:38 PM

Thanks Adam

From: Adam Prokop
Sent: Thursday, March 16, 2017 2:11 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
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Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Gavin He
To: John Kim
Subject: RE: OPG Equity Injection Summary
Date: Thursday, March 16, 2017 8:58:23 PM

Hi John,

Sure, I will send it to Ron for to review.

Regards,
Gavin He

From: John Kim
Sent: Thursday, March 16, 2017 7:57 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

Thanks Gavin….let's see if Ron wants to use these bullets.

John.

From: Gavin He
Sent: March-16-17 5:34 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

Hi John,

Please find attached the draft agenda for your review and comment.

Thanks,
Gavin He

From: John Kim
Sent: Thursday, March 16, 2017 4:51 PM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: OPG Equity Injection Summary

Would you mind basing your biweekly agenda in this? And send me?

Begin forwarded message:

From: Adam Prokop <Adam.Prokop@ofina.on.ca>
Date: March 16, 2017 at 3:09:27 PM EDT
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG Equity Injection Summary

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adam.prokop@ofina.on.ca

From: John Kim
To: Bruno Amara
Subject: RE: OPG Equity Injection
Date: Saturday, April 01, 2017 9:32:57 PM
Attachments: BN - GA Equity Injection Structure v6_Markup.docx

---

Looks quite good Bruno. Some very minor suggested edits.

I am thinking of sharing with Francisco and maybe with others Monday.

I'm happy that you run with things. Other than maybe putting some controls on junior staff reaching out to OPG, I'm quite happy.

John

From: Bruno Amara
Sent: March-31-17 4:08 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: FW: OPG Equity Injection

Hi John

We sent the attached draft note and offered follow-up discussion. Should MoF Legal be invited to work group calls or is it fine to just keep them in the loop.

By the way. Sorry, not much of a day off for you.

Bruno

From: Shajee Kathirgamanathan
Sent: Friday, March 31, 2017 2:57 PM
To: Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: OPG Equity Injection

Hi Toby,

Hope you're doing well.

I understand you may have had some discussions with Bruno about the Province's role with the GA Smoothing/Financing and the OPG equity injection.

We developed the attached ***draft note*** to provide a high level overview of the Province's Equity Injection. There are still some questions we have that are yet to be answered, hence the 'TBC' and frequent comments.

Nevertheless we thought it might be helpful to provide this to you as a launching off point for further discussions.

Happy to chat further.

Thanks,
Shajee

Shajee Kathirgamanathan
Senior Advisor
Electricity Finance Branch, Corporate and Electricity Finance Division
Ontario Financing Authority
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for OPG from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority are coordinating with Ontario Power Generation to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle ~~henceforth~~ referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be ~~required~~ structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms, specialized features such as callable, redeemable, etc. [Also see below.]

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets. OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.~~.~~
    - OPG to retain~~s~~ 3 dealers to advice on the long-term borrowing and financing of the GA.

Commented [JK1]: Not sure if we want to keep conveying that we're doing something to goal seek, regardless of original intent

Commented [AP2]: Legislation being proposed from the White Paper suggest that IESO would collect these payments to be remitted to OPG Trust.

Commented [JK3R2]: Also, confirmed through OPG staff.

Commented [JK4]: Check with SIFB or CMD on the right terminology.

Commented [JK5]: Did I get this right?

- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK6]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK7]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province ~~will~~ is expected to provide monthly equity injections to OPG
- In return, OPG ~~will~~ would issue new shares to the Province at a value of $20 per share.
- These share issuances ~~will~~ currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ28]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
March 30, 2017

From: John Kim
To: "Montgomery, Kaitlin (MOF)"
Cc: Ronald Kwan; Scott Nelms (ENERGY)
Subject: RE: OPG TB
Date: Monday, April 24, 2017 1:19:05 PM
Attachments: 2017 04 11 OPG Business Plan Review v8Sent.pptx
2017 03 14 OPG concurrence letter v6_markup3.docx

Hi Kaitlin,

There you go.

Thanks,

John

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Monday, April 24, 2017 9:14 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG TB

Great – thanks john – we have a meeting at 3:30 today with ENE DM to review the opg submission/letter so if at all possible to get those in advance it would be very helpful.

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 24, 2017 9:12 AM
To: Montgomery, Kaitlin (MOF)
Subject: RE: OPG TB

Hi Kaitlin,

We will try to send these back with comments today. We have some issues with the concurrence letter.

Thanks,

John

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, April 18, 2017 6:08 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: OPG TB

Hey John – wanted to pass along drafts of the OPG BP TB materials and concurrence letter. The deck and word doc submission are the same so feel free to just comment on one version. These are currently out for review by ENE so likely will be a few more changes to be made but wanted to give you guys a chance to review/input.

Happy to chat
Kaitlin

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

Ontario

MINISTRY OF
ENERGY

OPG Business Plan

May 2017

Context

- As required by the Memorandum of Agreement (MOA) between Ontario Power Generation and the Minister of Energy, OPG provided its Business Plan for 2017-2019 to the Ministry of Energy on November 29, 2016 for concurrence
  - Note that while OPG is seeking concurrence for its three year 2017-19 business plan, the plan also includes financial projections for 2020 and 2021
- The Minister's concurrence requires presentation of OPG's business plan before TB/MBC
- The Ministry of Energy review and analysis of OPG's business plan is supported by the Electricity Investment and Governance Secretariat, a unit within the Ministry of Finance and the Corporate and Electricity Finance Division of the Ontario Financing Authority
- The following presentation provides an overview of OPG's business plan, including:
  1. Business Plan Overview
  2. Other Considerations

Context *(cont'd)*

- Proceeding with Provincial concurrence now will demonstrate that OPG has support from its shareholder as it implements the plan and provides clarity to the Ontario Energy Board (OEB) as it reviews OPG's current rate application covering the 2017-2021 period

- Business plan forecasts may be affected by Ontario's Fair Hydro Plan (OFHP). Given the stage of implementation of OFHP and the timing of the receipt of the business plan in November 2016, these changes are not reflected in OPG's plan

  - The Ministry anticipates that as part of supporting the financing and administration of the global adjustment smoothing mechanism, OPG would purchase the right to future cash flows from IESO, financed partly by capital infusions from the Province, and majority by third-party lending

  - These changes are generally expected to be fiscally neutral as they would result in an increase in Provincial interest on debt, offset by increases in OPG net income

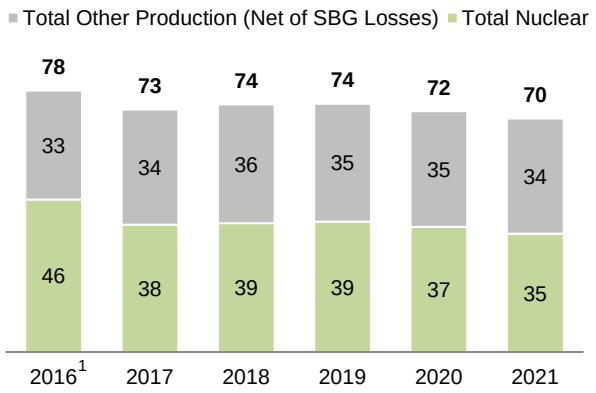
  - In addition, the Province's net debt position should remain unchanged

1. Business Plan Overview

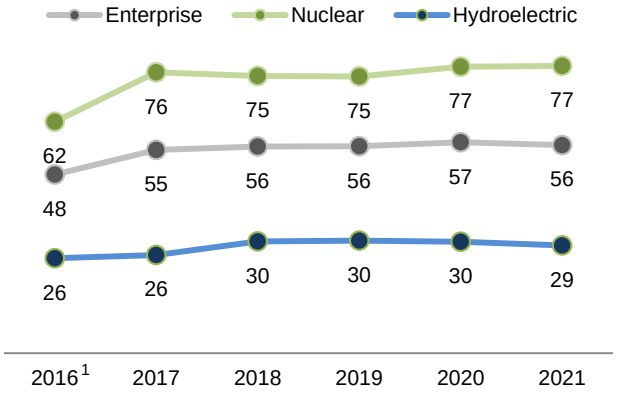
a) Production & Total Cost of Generation

- OPG's production is expected to fall to 69.8 TWh by 2021 from 78.2 TWh in 2016
  - Reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016
  - Also includes a partial overlap starting in 2021 between second and third unit refurbishments
- While Operations, Maintenance and Administration (OM&A) remains relatively stable over the planning period (see next slide), total generating cost (TGC)* shows an increasing trend over the planning period relative to 2016, reflecting:
  - Lower nuclear production due to Darlington refurbishment outages, and
  - Increased sustaining capital spending (included in TGC) on two large hydroelectric projects, the Lower Mattagami dam safety upgrade and the Sir Adam Beck I GS power canal liner rehabilitation

Production (TWh)



Total Generating Cost ($/MWh)



1. Actuals

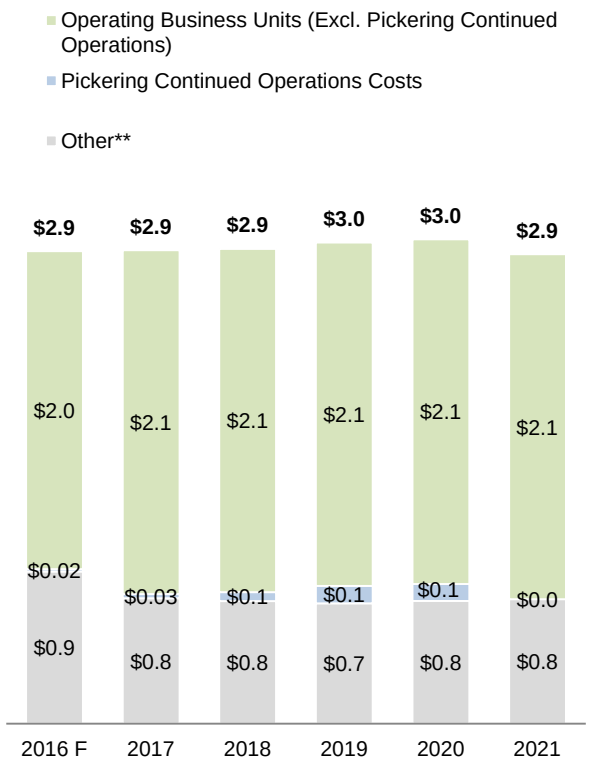
*TGC = OM&A expenses from ongoing operations + fuel and Gross Revenue Charge expenses for OPG-operated stations + sustaining capital expenditures) divided by OPG generation adjusted for surplus baseload generation losses

1. Business Plan Overview

b) Operations, Maintenance and Administration (OM&A) Expenses

- Annual OM&A expenses from ongoing operations are expected to stay consistent over the plan period, averaging $2.9B per year
- Increases over 2016 are mainly attributable to:
  - Increases in business unit expenditures, including changes in nuclear outage scope at Darlington, and planned hiring to fill staffing gaps
  - Incremental outage and other program costs to enable Pickering continued operations
  - Partially offset by declining pension and OPEB costs over the period due to projected pension asset returns, increased employee contributions, and adoption of a new method for applying discount rates to determine interest components of pension costs

OM&A from Ongoing Operations* ($B)



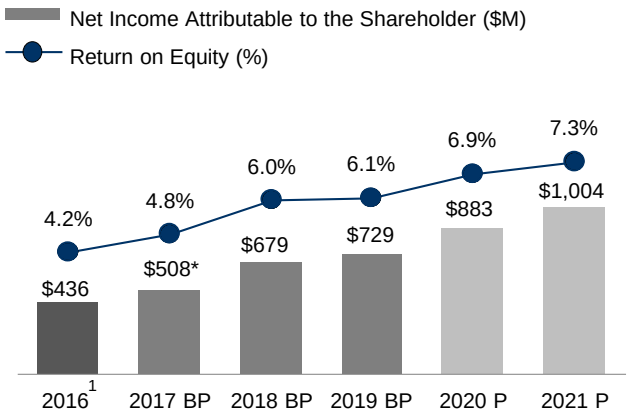
*Excludes Darlington refurbishment OM&A expenses and all OEB variance and deferral account offsets
** Includes centrally held pension /OPEB costs and support services

1. Business Plan Overview

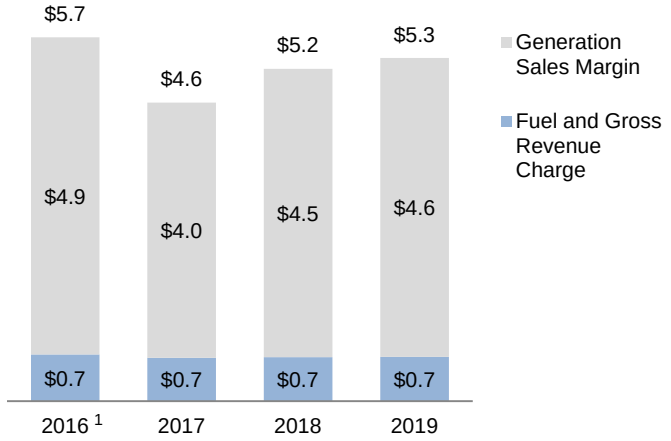
c) Financials

- OPG is forecasting net income attributable to the Shareholder to reach $1B in 2021, from $436M in 2016
  - 2017 net income is forecast to increase as a result of new regulated rates, a gain on sale of OPG's head office, higher capitalized interest for the Darlington Refurbishment expenditures partially offset by reduced production as a result of planned outages at Sir Adam Beck I and DeCew II hydro stations
  - Net income in 2018 and 2019 is planned to increase, primarily due to higher forecast production, and earnings from oncoming stations, including Nanticoke solar in 2019
- As a result, return-on-equity (ROE) is estimated to increase from 4.2% in 2016 to 7.3% by 2021
- Overall, the 2017-19 Business Plan is largely unchanged relative to last year's plan in terms of commitments for Net Income, and Total Shareholder Return

Net Income ($M) and ROE (%)



Revenue Margin ($B)



*Includes extraordinary gain associated with the sale of OPG head office

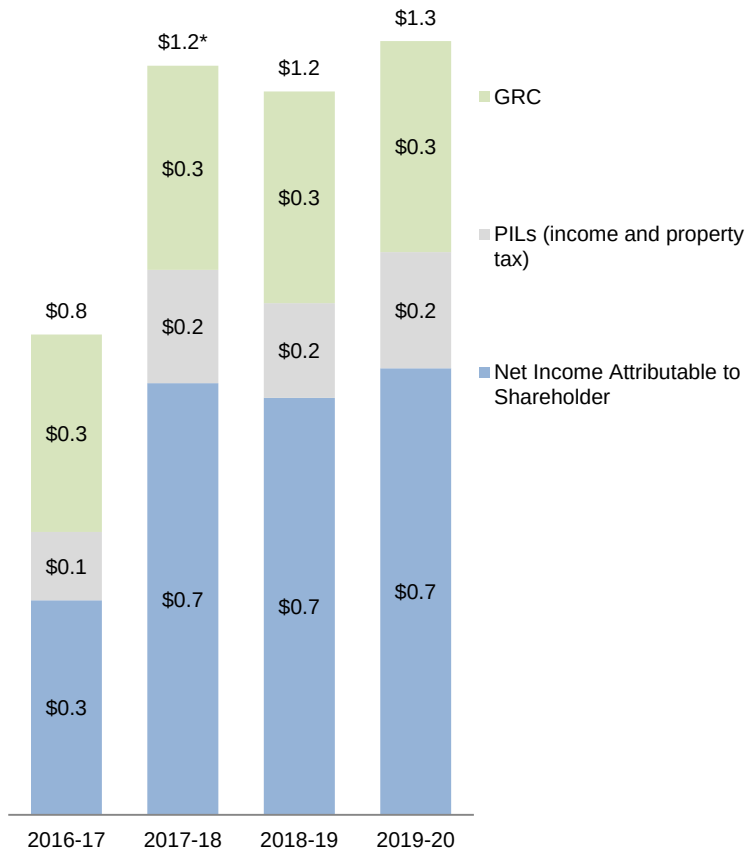
1. Actuals

1. Business Plan Overview

d) Provincial Fiscal Impacts: Shareholder Return and Payments-in-Lieu of Taxes

- Total fiscal revenue impacts to the Province, including net income return to the shareholder and payments-in-lieu of taxes, averages ~$1B over the period
  - Provincial revenues from OPG are dedicated to servicing and paying down stranded debt and the investment cost of the Province acquiring the equity in OPG.
- ~~Total r~~Return to the shareholder improves ~~over the period largely~~ due to changes in net income, which OPG attributes to:
  - Assumed OEB rate outcomes
  - Completion of the first Darlington unit refurbishment
  - Further cost efficiencies
- Net income is consolidated by the Province as Revenue from Government Business Enterprises (GBEs)
- Income tax PILs, Gross Revenue Charges (GRC) and property tax PILs paid to ~~are consolidated by~~ the Ontario Electricity Financial Corporation (OEFC) to help service and pay down stranded debt are consolidated in Public Accounts under Taxation Revenue
- OPG also pays a portion of the Gross Revenue Charge (GRC) ~~and Property Taxes to the OEFC to the Province's Consolidated Revenue Fund~~

Total Fiscal Revenues ~~Shareholder Return~~ ($B)



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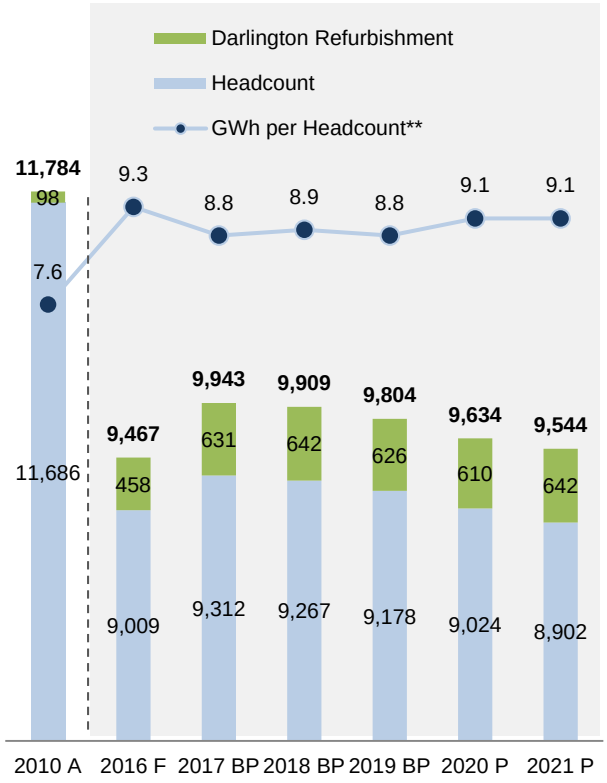
1. Business Plan Overview

e) Business Transformation Initiative & Labour Costs

- As part of a company-wide business transformation, OPG has saved over $1B in costs from January 2011 to December 2016
  - Headcount has fallen from 11,686 in 2010 to a forecasted 9,009 in 2016 while GWh per headcount has increased from 7.6 to 9.3
- However, OPG is ramping up recruitment between 2016 and 2017 to fill key vacancies in certain areas (particularly in the Nuclear business unit) due to high levels of attrition from employee demographics, as well as continued Pickering operations beyond 2020
  - OPG is forecasting regular headcount to show a net increase of ~300 by the end of 2017 before gradually decreasing to 4% lower than 2017 levels in 2021
- In addition, to date OPG has hired ~60 Term employees, a new category of non-regular staff negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015
  - Intention is to add fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations

Ongoing Operations Regular Headcount and Productivity



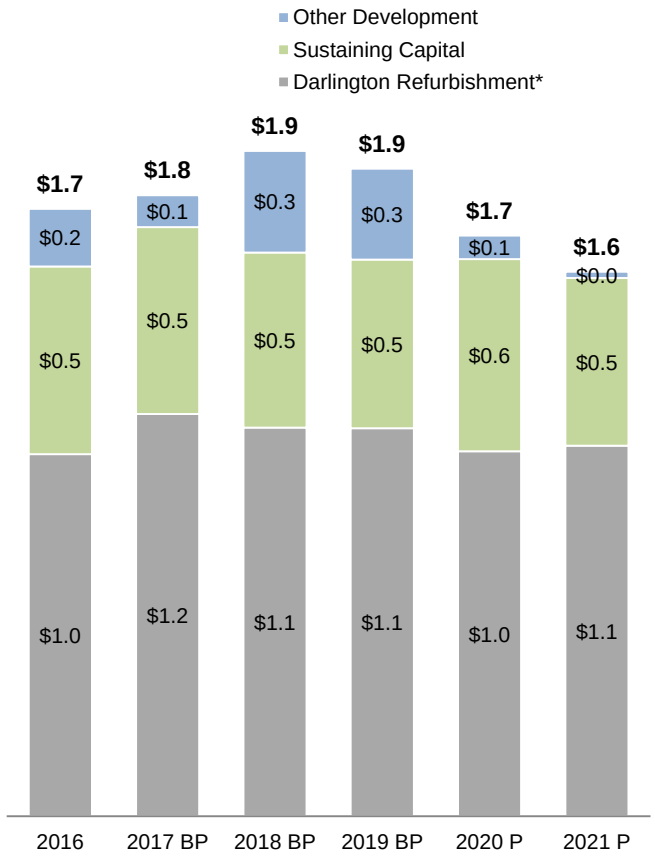
**Production is normalized by adding back hydroelectric surplus baseload generation losses and, in 2017- 2021, the lower production due to the Darlington refurbishment outages

1. Business Plan Overview

f) Operating Highlights - Projects and Capital Expenditures

- OPG continues to focus on delivery of its major projects over the plan period, including:
  - **Darlington Refurbishment**: Unit 2 is assumed to be returned to service in February 2020 with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, assuming necessary concurrence from the Province is obtained
  - **Sustaining Capital:** Expenditures average $570M, including:
    - Nuclear expenditures unrelated to refurbishment at Darlington and costs for continued operation of Pickering
    - Regulated hydro expenditures including upgrades at Sir Adam Beck and upgrades to DeCew II
    - Lower Mattagami upgrades in 2018 and 2019
  - **Other Developments:** Investments in current and emerging generation technologies including solar and energy storage including construction and operation of the Nanticoke solar facility

Capital Expenditure Estimates ($B)



*Includes expenditures budgeted by Support Services

2. Other Considerations

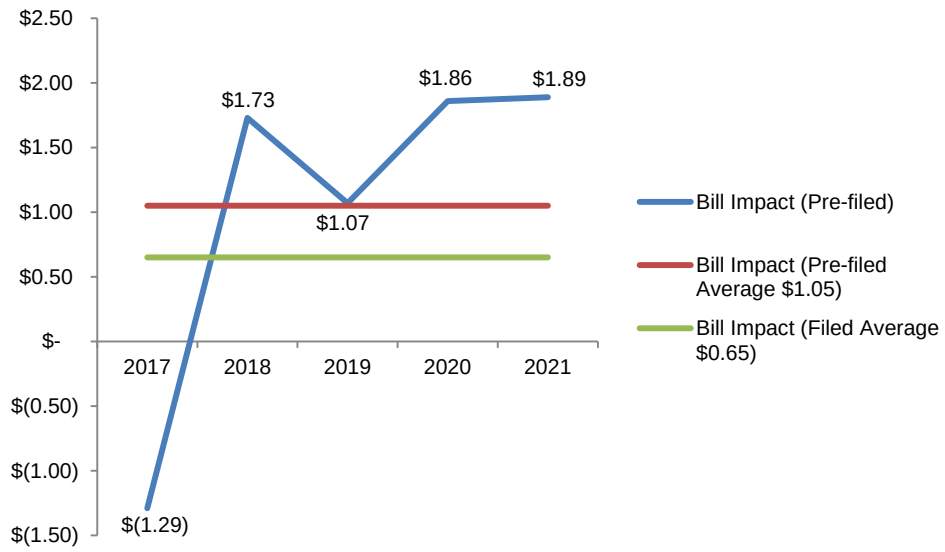
Rate Application

- OPG's 2017-19 Business Plan is dependent on the outcome of its rate filing with the OEB for the five-year period from 2017-2021
- Oral hearings began February 21, 2017 with a decision expected in Q3 2017
- OPG's 2017-19 Business Plan assumes new rates are effective January 1, 2017
  - The OEB setting a later effective date would negatively impact OPG's 2017-18 fiscal year net income by ~$50-60M per month of delay*

Rate-Smoothing Proposal:

- On March 2, 2017 the Province filed an amendment to O.Reg.53/05, which enables OPG to smooth its rates based on OPG's total bill impact, rather than on the basis of nuclear rates only
- On March 8, 2017 OPG filed a revised rate smoothing proposal with the OEB, which is expected to decrease the average annual impact on the monthly customer bill for an average consumption of 750 KWh/month from about $1.05 to 65 cents per month per year

Comparison of Annual Bill Impact ($/Month per year)



*Forecasted in May 2016

2. Other Considerations

Sales

	OPG Head Office	R.L. Hearn Site	Lakeview Site
Current Status	Completed	Agreement Reached	OPG and Infrastructure Ontario are preparing for marketing
Site Description	700 University Ave. and parking garage at 40 Murray St. in Toronto	~33 acres at the R.L. Hearn site in Toronto	~67 acres to be transferred by the purchaser to the City of Mississauga (Municipal Park Lands) and ~110 acres to be developed for mixed uses (Uplands)
Buyer	KingSett Canadian Real Estate Income Fund LP	Studios of America Limited Partner	TBD
Value	Estimated up-front 2017-18 fiscal impact of ~$375M (includes after-tax gain as well as PILs to OEFC)	TBD	TBD
Other Considerations	N/A	N/A	Negotiations with the City have been lengthy and costs to remediate/prepare site may be significant due to concerns regarding site condition
Timing	The sale closed in April 2017	Anticipated to close in Q3 2017	Marketing is planned to start in April 2017, pending negotiations with the City, with an anticipated closing in 2017

2. Other Considerations

Special Status for OPG to Approve International Travel

- On January 24, 2017, OPG's President and CEO wrote to the Deputy Minister requesting authority for OPG to approve international travel for its employees
  - Section 5.3 of the Management Board of Cabinet's Travel, Meal and Hospitality Expenses Directive allows agencies/organizations, for which international travel may be integral to their business, to seek TB/MBC approval for special status to ensure that the approval process does not have an undue negative effect on its ability to conduct business
- OPG has indicated that international travel is integral to the safe and prudent operation of its business and that special status will enable efficient decision-making while lowering travel costs
  - OPG cites the importance of enabling its engagement with the international community (in particular in regards to nuclear safety), procurement activities, and investment and due diligence processes for its pension fund and nuclear funds
  - OPG requires a high level of international business travel at approximately 90-100 trips annually, while Darlington accounts for 45% and is expected to see increases
  - OPG indicated that the approval process, which took 23 days on average in 2016, delays flight bookings which results in higher costs as airlines raise fares closer to the travel date
  - OPG believes the inability to make timely commitments on events and meetings impacts employee engagement as well as its international relationships and reputation
- OPG has asked that this application be included with the Ministry's submission to TB/MBC seeking concurrence with OPG's 2017-19 business plan

Appendix

2016 Year-End Financials

OPG Balance Sheet as at Dec 31 $B	2016
Assets	
Cash and cash equivalents	0.2
Available-for-sale securities	0.2
Receivables from related parties	0.4
Nuclear fixed asset removal and nuclear waste management funds	0.02
Other current assets	0.9
Total current assets	**$1.7**
Net property, plant and equipment	**$20.0**
Net intangible assets	**$0.1**
Nuclear fixed asset removal and nuclear waste management funds	16.0
Regulatory assets	5.9
Other long-term assets	0.7
Other assets	**$22.5**
Total assets	**$44.4**
Liabilities	
Accounts payable and accrued charges	1.2
Short-term debt and long-term debt due within one year	1.1
Income taxes payable and other current liabilities	0.1
Total current liabilities	**$2.4**
Long-term debt	4.4
Fixed asset removal and nuclear waste management liabilities	19.5
Pension liabilities	3.0
Other post-employment benefit liabilities	2.9
Other liabilities	1.7
	$31.5
Total liabilities	**$33.9**
Equity	
Equity attributable to the Shareholder	10.4
Equity attributable to non-controlling interest	0.1
Total equity	**$10.5**
Total liabilities and equity	**$44.4**

OPG Income Statement Year Ended Dec 31 $B	2016
Revenue	$5.7
Fuel expense	0.7
Gross margin	**$4.9**
Operations, maintenance and administration	2.7
Depreciation and amortization	1.3
Accretion on fixed asset removal and nuclear waste management liabilities	0.9
Earnings on nuclear fixed asset removal and nuclear waste management funds	-0.7
Other expenses	0.02
Total expenses	**$4.2**
Income before other (gains) losses, interest and income taxes	**$0.7**
Other (gains) losses	-0.02
Income before interest and income taxes	**$0.7**
Net interest expense	0.1
Income before income taxes	**$0.6**
Income tax expense	0.2
Net income	**$0.5**
Net income attributable to the Shareholder	**$0.4**
Net income attributable to non-controlling interest	**$0.02**

Mr. Bernard Lord
Chair
Ontario Power Generation
1900-700 University Avenue
Toronto ON M5G 1X6

Dear Mr. Lord,

Thank you for your submission of Ontario Power Generation's (OPG) 2017-2019 Business Plan ("the Plan"). We have reviewed the Plan and find it to be consistent with our government's expectations.

I support the operational and financial targets set by OPG in its business plan. We recognize the substantial cost reductions that OPG has recently achieved and expect OPG to work closely with the Province to fully realize the additional efficiencies incorporated in the Plan in a manner that is consistent with financial targets and the continued safe and environmentally responsible operation of OPG's facilities.

We commend OPG on its successful start to the Darlington Refurbishment Project, a key objective of Ontario's 2013 Long-Term Energy Plan (2013 LTEP). As a priority project for the government, I expect that OPG will continue to focus on delivering the project as per the schedule and budget contained in the Release Quality Estimate approved by the OPG Board and by the government. I also expect OPG to continue to minimize project risks consistent with the nuclear refurbishment principles set out in the 2013 LTEP, and seek concurrence prior to commencing subsequent unit refurbishments after Unit 2 is successfully returned to service.

We continue to support the planned operation of Pickering units up to 2024 as the station's output will provide reliable, cost-effective and emission-free electricity supply during the Darlington and initial Bruce refurbishments. I expect OPG to seek concurrence to proceed with ongoing Pickering operation after the necessary regulatory approvals are complete.

I understand that the recently approved Ontario Nuclear Funds Agreement (ONFA) Reference Plan has resulted in a reduction of the estimated liabilities ~~costs to consumers~~ for future decommissioning and long-term management of waste from Ontario's nuclear fleet. ~~plants. In addition, the segregated nuclear funds set aside under ONFA have reached fully funded status.~~ With many decades of nuclear generation in the Province's future, we expect OPG to continue managing its decommissioning and waste management obligations [and related segregated funds] in a prudent manner~~, the decision to fund these costs now provides security for future generations of Ontarians~~.

I appreciate the efforts of OPG staff, management and the Board of Directors to date as we worked to develop a plan to refinance the Global Adjustment (GA). Refinancing the GA would provide significant and immediate rate relief by spreading the cost of electricity investments over the expected lifecycle of the infrastructure that has been built. OPG will be instrumental to the success of this initiative and we plan to introduce legislation that would, if passed, enable OPG to work with the Independent Electricity System Operator (IESO) to implement this plan.

Commented [RK1]: Recommended not to use this wording, particularly also using the fully-funded wording that follows.

Under ONFA, for prudence, the Province required OPG to accelerate contributions to the funds, in advance of collecting the amounts from ratepayers. Even if the funds are currently estimated to be fully-funded, OPG (and the Province as Shareholder) still needs to recover its nuclear liabilities costs in rates.

Commented [RK2]: If wording is retained, should be reworded.

"As a result of the lower estimated liabilities and recent financial market performance, the segregated nuclear funds set aside under ONFA are currently estimated to be fully funded."

Commented [FC3R2]: Should be noted that the funds are fully funded today but changes in market conditions could put the funds in a temporary deficit position in a very short period.

I expect OPG to continue to keep the government informed with regard to the company's key ongoing and emerging initiatives and progress in achieving its financial and operational performance commitments. As OPG's performance directly impacts Ontario's fiscal plan, we note the importance of achieving or exceeding OPG's financial performance commitments.

This letter constitutes our concurrence with OPG's Board approved 2017-2019 Business Plan as provided for under the Memorandum of Agreement between OPG and the Shareholder dated July 17, 2015.

Sincerely,

Glenn Thibeault
Minister of Energy

c: Jeff Lyash, President and Chief Executive Officer, OPG
Ali Ghiassi, Chief of Staff, Ministry of Finance
Scott Thompson, Deputy Minister, Ministry of Finance
Serge Imbrogno, Deputy Minister, Ministry of Energy

Commented [RK4]: Only add in if Energy CoS is included.

From: Shajee Kathirgamanathan
To: John Kim
Subject: RE: OPG Trust Financing
Date: Monday, March 13, 2017 3:04:33 PM

Thanks

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 13, 2017 3:04 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OPG Trust Financing

My markup is in the same v8.

From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 2:29 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: OPG Trust Financing

I took a quick first look Friday and was ok with it. I took a second stab for more word smithing type things, but that might just being picky.

Happy to pass it on in the interests of time, but would welcome another round of review.

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Sent: Monday, March 13, 2017 2:25 PM
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Subject: RE: OPG Trust Financing

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From: Shajee Kathirgamanathan
Sent: Monday, March 13, 2017 2:24 PM
To: John Kim <John.Kim@ofina.on.ca>

Subject: RE: OPG Trust Financing

Oh right. I was taking a look this morning before the CME work. Closed the v8 file now.

Thanks,
Shajee

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Hi Shajee,

Are you looking at this still?

John.

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Cc: John Kim <John.Kim@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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Hello Bruno,

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\\ofina.on.ca\ofadfs\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure
Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Bruno Amara
Sent: Friday, March 10, 2017 3:57 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi Adam

How's it going so far on your note? OK? Not OK?

Bruno

From: John Kim
Sent: Friday, March 10, 2017 3:15 PM
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From: Francisco Chinchon
Sent: Friday, March 10, 2017 1:41 PM
To: Arie Jarczyn <Arie.Jarczyn@ofina.on.ca>
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Strategic Investment and Finance Branch

Ontario Financing Authority
Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

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Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

From: Shajee Kathirgamanathan
To: John Kim
Subject: RE: OPG Trust Financing
Date: Monday, March 13, 2017 2:23:40 PM

Oh right. I was taking a look this morning before the CME work. Closed the v8 file now.

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: John Kim
Sent: Monday, March 13, 2017 2:16 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi Shajee,

Are you looking at this still?

John.

From: Shajee Kathirgamanathan
Sent: Friday, March 10, 2017 4:19 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: OPG Trust Financing

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Cc: John Kim <John.Kim@ofina.on.ca>; Shajee Kathirgamanathan

<Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: Bruno Amara
Sent: Friday, March 10, 2017 3:57 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi Adam

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e-mail: arie.jarczyn@ofina.on.ca

From:	Adam Prokop
To:	Shajee Kathirgamanathan; Bruno Amara
Cc:	John Kim; Gavin He; Salman Qadir
Subject:	RE: OPG Trust Financing
Date:	Friday, March 10, 2017 4:25:53 PM

Thanks Shajee,

Please refer to the folder version where I added:

- **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Kind regards,

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Subject:	RE: OPG Trust Financing
Date:	Friday, March 10, 2017 4:19:23 PM

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To:	Bruno Amara
Cc:	John Kim; Shajee Kathirgamanathan; Gavin He; Salman Qadir
Subject:	RE: OPG Trust Financing
Date:	Friday, March 10, 2017 4:13:58 PM
Attachments:	GA Structure v4.docx

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Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan.

Context

- Ratepayers would only pay a portion of the GA cost in initial years, with the Province essentially taking on debt to pay off the deferred portion immediately.
- In later years, ratepayers would pay more than the true cost of the GA to settle the financing costs taken on to defer the cost.
    - There will be a cap on the annual additional cost over the GA to lessen the burden on ratepayers.
- Principal payments are mandatory, but there has been no clarification on whether or not interest payments will be deferred or if they will be collected from ratepayers on a frequent basis.
    - Having "interest on interest" (i.e., compounding effect) with deferrals on interest payments increases peak debt by approximately $5B and leads to billions of additional accumulated interest costs, based on preliminary estimates.
    - However, if interest payments are made by ratepayers, it lessens the relief provided by the GA deferral mechanism.
- Furthermore, it has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers or recognized at the very least, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset by IESO, likely as a regulatory asset that gives IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would have the collection of the revenue streams associated with this asset.
    - The proposal states that IESO would be required to collect the costs associated with this asset even after selling it.
    - IESO needs to sell the asset in order to secure cash to settle its arrangements with generators, thus ensuring that generators are not affected by the deferral.
    - Alternatively, IESO could simply borrow funds (using the regulatory asset as collateral), but this has implications for consolidation on public accounts including the impact on credit ratings.
    - On the other hand, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust", that would be the party purchasing the regulatory asset from IESO.
    - It would be funded by the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through a loan from the capital markets (5%) and an equity injection from the province (44%).
    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper released on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The rationale behind an equity injection is that it could lead to increasing, and then stabilizing, dividend payouts in commensurate with the Ontario Power Generation's risk profile and comparable business entities.
    - Principal payments and interest flowing from the ratepayers through IESO and the Trust could be relayed back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in an estimated ten years' time, eventually reaching a cap of an estimated $2.242B in principal and interest per year based on Energy's March estimates (with interest on interest).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.

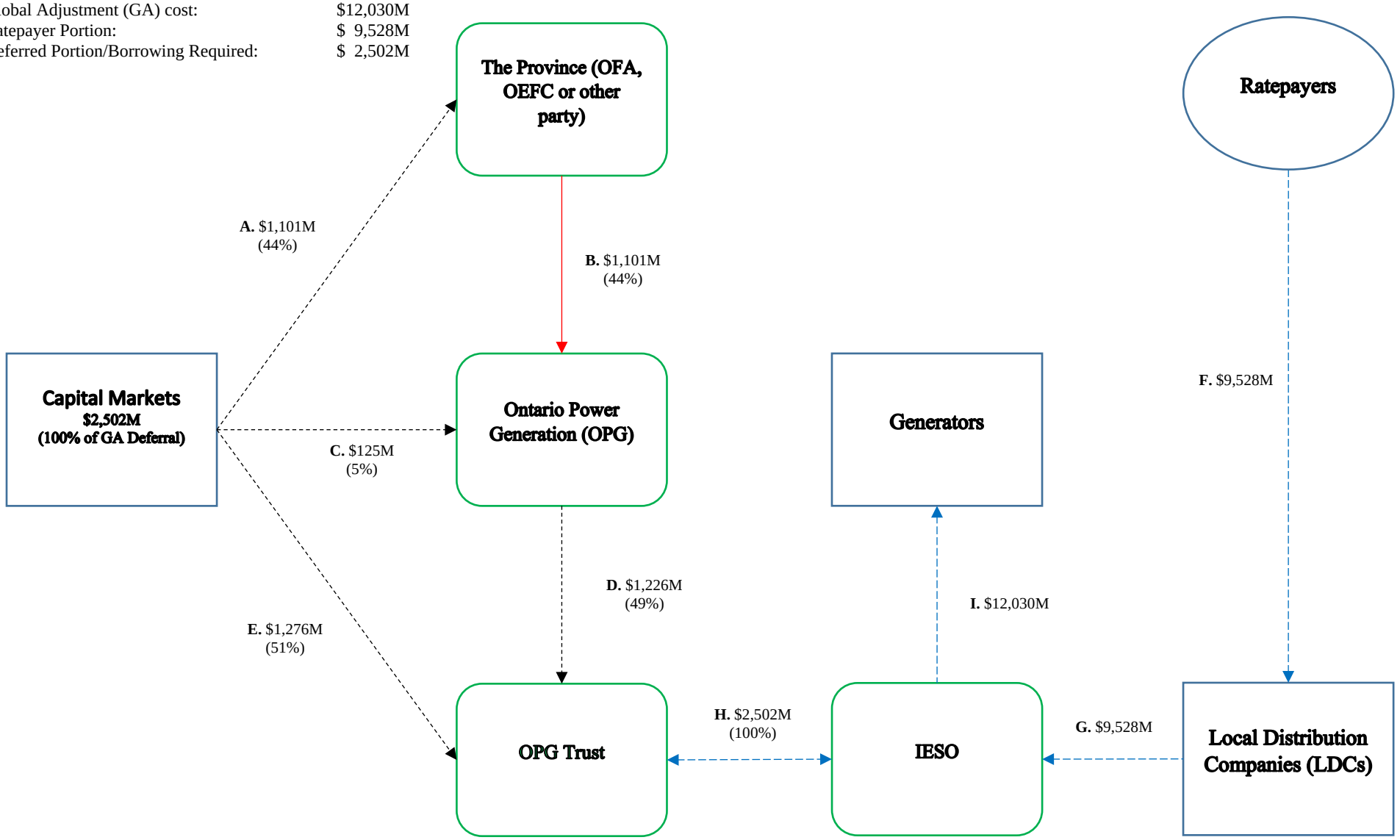
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted 55%-45% debt to equity split.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts.
- The financing structure split between equity (44%) and debt (56% - 5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments that can be undertaken, depending on legislative and regulatory approval that will impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers immediately:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers immediately. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be collected as well. Overall, there would be no fiscal cost, and less debt will build up over time due to the elimination of the compound effects on interest. However, the relief provided to ratepayers from the principal payments on deferred costs would be mitigated by this interest payment, although it is quite low for the initial 4 -5 years.
    - **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which is essentially proposing to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.
    - Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings. There is also a compounding effect on interest as even though cash interest has not been paid, an expense still needs to be recognized.
    - Option 4: **No collection from ratepayers but deferral of expense recognition**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books, thus eliminating the fiscal impact.
        - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
        - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
        - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
        - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
        - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
        - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M



Setting up the Trust

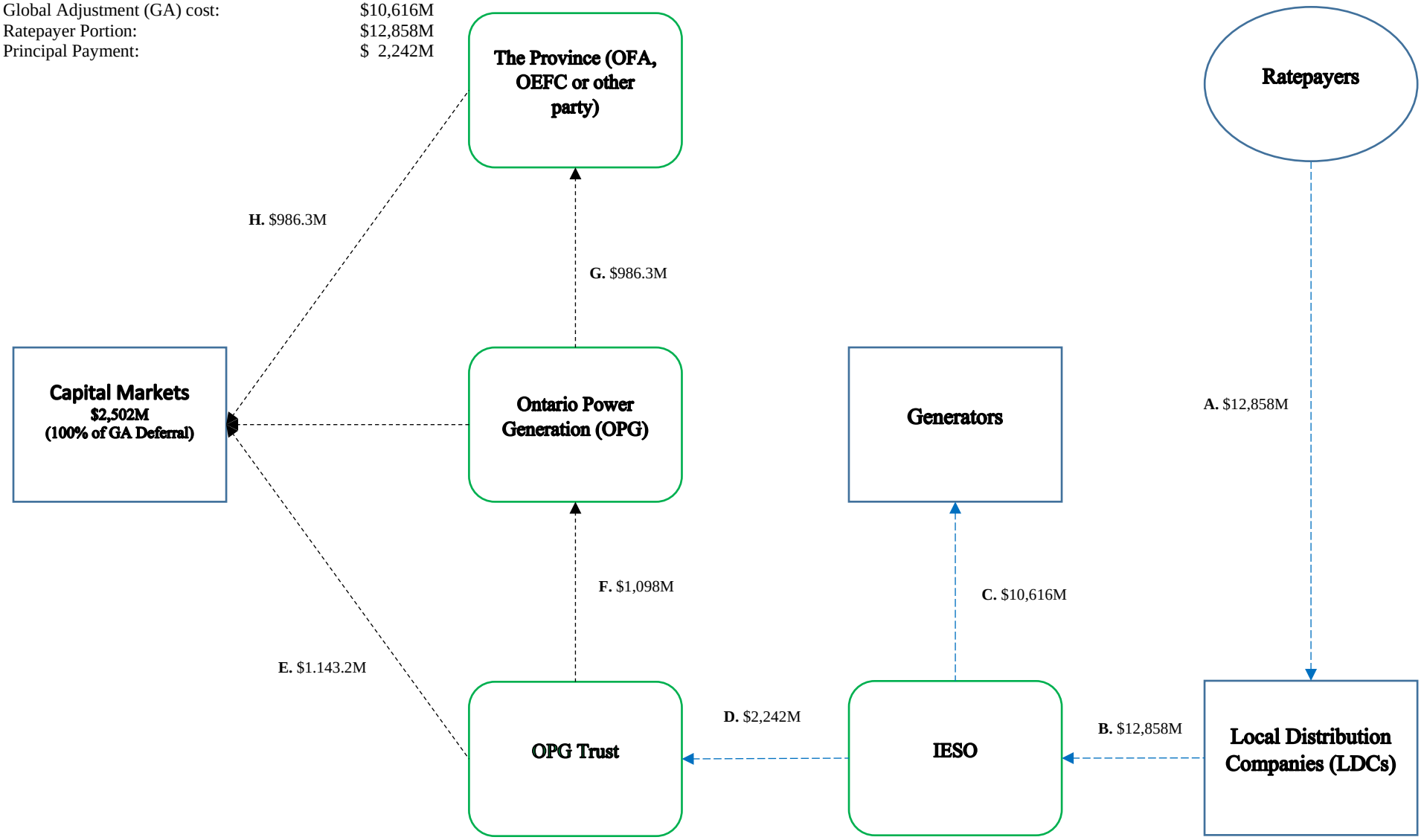
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism

F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

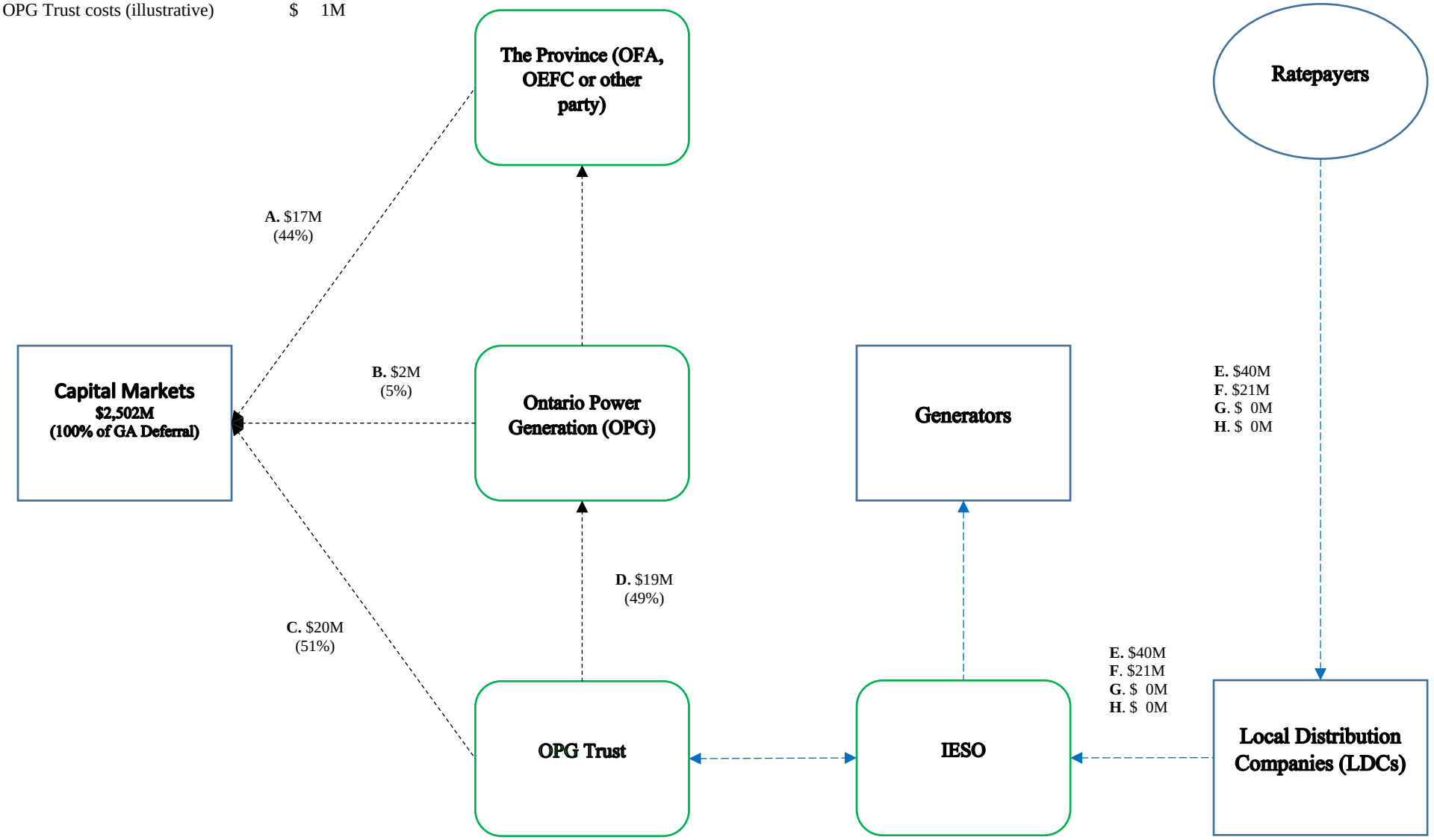
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Adam Prokop (416-325-6462)
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Corporate and Electricity Finance Division
Ontario Financing Authority
March 10, 2017

From: Ronald Kwan
To: John Kim
Subject: RE: OPG Trust Financing
Date: Thursday, March 16, 2017 5:16:05 PM

Hi John,

Did you send me anything?

Ron

From: John Kim
Sent: March-10-17 15:50
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi Ron, Francisco,

We will add to this. Hopefully soon.

Thanks,

John.

From: Francisco Chinchon
Sent: Friday, March 10, 2017 3:14 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: OPG Trust Financing

Hi Ron, John,

Arie and Wentao put together a note that explains what we need to do and the challenges/questions we will probably face. Is intended to map the road, we can expand as we have more clarity.

All comments are welcome.

Francisco

From: Arie Jarczyn
Sent: Friday, March 10, 2017 2:14 PM

To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Hi looks good to us, just a few edits.

Thanks,
Arie

From: Francisco Chinchon
Sent: Friday, March 10, 2017 1:41 PM
To: Arie Jarczyn <Arie.Jarczyn@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Looks good. I added a bit, please review.

From: Arie Jarczyn
Sent: Friday, March 10, 2017 9:56 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: OPG Trust Financing

Hi Francisco,

Please find for review a draft that Darren, Wentao and I worked on, on the mechanics on funding the OPG Trust

Saved here

Arie Jarczyn
Senior Advisor
Strategic Investment and Finance Branch
Ontario Financing Authority
Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

From: Ronald Kwan
To: John Kim
Cc: Gavin He
Subject: RE: OREC MOU
Date: Wednesday, March 08, 2017 2:59:42 PM

Hi John,

Any update on this? And is the portal being populated? Do we have access and downloading the information?

Thanks,
Ron

-----Original Message-----
From: Ronald Kwan
Sent: February-08-17 11:10
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: OREC MOU

Hi,

Does that mean FTD is not providing the services contemplated in the MOU?

Ron

> On Feb 8, 2017, at 11:01 AM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> We're checking. Michael's staff didn't respond to our earlier calls on the MOU.
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: Wednesday, February 08, 2017 11:00 AM
> To: John Kim <John.Kim@ofina.on.ca>
> Cc: Gavin He <Gavin.He@ofina.on.ca>
> Subject: Re: OREC MOU
>
> And is there an OREC portal up and running?
>
> Thanks,
> Ron
>
>> On Feb 8, 2017, at 10:38 AM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:
>>
>> Hi John,
>>
>> What's the status of the OREC MOU?
>>
>> Thanks,
>> Ron

From:	Gavin He
To:	John Kim
Cc:	Bruno Amara; Shajee Kathirgamanathan
Subject:	RE: OREC MOU
Date:	Wednesday, March 08, 2017 4:02:15 PM
Attachments:	RE Benefit Implementation.msg

Hi John,

FTD confirmed that the payment was processed on Thursday, February 16th. The portal is up and working now. I have included the emails for your reference.

Regards,
Gavin He

From: John Kim
Sent: Wednesday, March 08, 2017 3:01 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: Fwd: OREC MOU

Hi Shajee, Gavin,

Pls. Take a look at the inquiry...

John.

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** March 8, 2017 at 2:59:42 PM EST
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Cc:** Gavin He <Gavin.He@ofina.on.ca>
> **Subject: RE: OREC MOU**
>
> Hi John,
>
> Any update on this? And is the portal being populated? Do we have access and downloading the information?
>
> Thanks,
> Ron
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: February-08-17 11:10

To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: OREC MOU

Hi,

Does that mean FTD is not providing the services contemplated in the MOU?

Ron

> On Feb 8, 2017, at 11:01 AM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> We're checking. Michael's staff didn't respond to our earlier calls on the MOU.
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: Wednesday, February 08, 2017 11:00 AM
> To: John Kim <John.Kim@ofina.on.ca>
> Cc: Gavin He <Gavin.He@ofina.on.ca>
> Subject: Re: OREC MOU
>
> And is there an OREC portal up and running?
>
> Thanks,
> Ron
>
> > On Feb 8, 2017, at 10:38 AM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:
> >
> > Hi John,
> >
> > What's the status of the OREC MOU?
> >
> > Thanks,
> > Ron

From: Hunter, Robert A. (ENERGY) [Robert.A.Hunter@ontario.ca]
To: Gavin He [Gavin.He@ofina.on.ca]
CC: Shajee Kathirgamanathan [Shajee.Kathirgamanathan@ofina.on.ca]
Subject: RE: Benefit Implementation
Date: Wednesday, March 08, 2017 16:54:59
Attachment 1: January 2017 IESO Invoice.docx

Hi Gavin,

I sent the Invoice on February 16, 2017 around the same time as the settlement statement. Shajee should have received this email as he is on the mailing list. I've attached the invoice for both the OCEB and the OREC to this email in case my previous email was not received.

The Ministry's portal is active and running and can be found here: https://extra.sse.gov.on.ca/sites/MOEN-oceb/OREC/SitePages/Home.aspx[extra.sse.gov.on.ca]. Your login ID is GavinH and I will send you a temporary password in a system generated email. Please change this password immediately upon login.

If you want to view the data in the portal the steps for doing so are as follows:
This is the process to follow when you want to download all LDC or USMP data for comparison.

1. Click on "LDC Submissions" or "Submeterer Submissions" on the homepage for whichever you are interested in.
2. At menu on top of page, select "List"
3. On drop down menu under "Current View" which is currently selected as "All Items", select "ExcelExport"
4. Click "List" again, then select "Export to Excel" button/icon
5. Click "Open" to access data. In spreadsheet, scroll right. Under "Settlement Period" heading deselect all and then select the reporting period of interest.

Would you still like us to provide you with access to the IESO Reports Website? If so, I will need some additional information and will have to get Ministry approvals. Please let me know.

If you have any other questions don't hesitate to contact me.

Thanks,

-Robert
(416) 325-6899

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: March-08-17 3:18 PM
To: Hunter, Robert A. (ENERGY)
Cc: Kathirgamanathan,Shajee (OFA)
Subject: RE: Benefit Implementation

Hi Robert,

Hope you are doing well!

I just want to follow up on this item. I believe OFA already processed the first payment; however, we didn't see an actual invoice coming to CEFD. Also, is the portal up and working now? If so, could you please provide us with the link?

Thanks,
Gavin He

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Friday, December 16, 2016 9:31 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Benefit Implementation

Hi Gavin, this contact request is for a new portal that is being created by the Ministry, and is separate from the IESO Reports Website. Historically for the OCEB, there were two portals, one that is Ministry operated and one that is run by the IESO. The new rebate program mirrors the OCEB program in that there will be both a ministry operated portal and an IESO operated portal (IESO Reports Website).

IESO portal access is still in process while we work on finalizing our agreement with them. I will follow-up with more information once this is complete.

Hopefully this answers your question.

Thanks,

-Robert
(416) 325-6899

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: December-16-16 9:06 AM
To: Hunter, Robert A. (ENERGY)
Subject: RE: Benefit Implementation

Hi Robert,

Hope you are doing well! Quick question, is this a new portal being created? Does this access pertain to the "IESO Reports Website"?

Thanks,
Gavin He

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Thursday, December 15, 2016 10:43 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Singh, Inayat (ENERGY) <Inayat.Singh2@ontario.ca>; Sunita Chander

(ENERGY) <Sunita.Chander@ontario.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: RE: Benefit Implementation

Thank you Gavin, I will update the contacts accordingly.

-Robert
(416) 325-6899

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: December-15-16 10:42 AM
To: Hunter, Robert A. (ENERGY)
Cc: Kim, John (OFA); Salman Qadir; Kandeepan, Ken (OFA); Singh, Inayat (ENERGY); Chander, Sunita (ENERGY); Kathirgamanathan,Shajee (OFA)
Subject: RE: Benefit Implementation

Hi Robert,

Thank you for checking in with us. Could you please update the list with below 3 contacts?

John Kim - John.Kim@ofina.on.ca
Shajee Kathirgamanathan - Shajee.Kathirgamanathan@ofina.on.ca
Gavin He – Gavin.He@ofina.on.ca

Thanks,
Gavin He

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Thursday, December 15, 2016 10:26 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Singh, Inayat (ENERGY) <Inayat.Singh2@ontario.ca>; Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: RE: Benefit Implementation

Hi all,

FYI – The Ministry is currently creating a new reporting portal for the Rebate program. The following staff from the OFA had access to the Ministry's previous clean energy benefit portal:

Adrian Nalasco - adrian.nalasco@ofina.on.ca
Darren Scanlan - Darren.Scanlan@ofina.on.ca
Ronald Kwan - Ronald.Kwan@ofina.on.ca

Can you confirm whether the OFA would like to carry forward with the same contacts? If not, could you please update this list to provide the 3 contacts you would like to have access?

We are looking for this information by the end of the week and will just use the current 3 contacts if no changes are received.

Thank you,

-Robert
(416) 325-6899

From: Gavin He [mailto:Gavin.He@ofina.on.ca]
Sent: December-14-16 1:42 PM
To: Chander, Sunita (ENERGY); Hunter, Robert A. (ENERGY)
Cc: Kim, John (OFA); Salman Qadir; Kandeepan, Ken (OFA); Singh, Inayat (ENERGY)
Subject: RE: Benefit Implementation

Hi Sunita and Robert,

Please find attached the updated MOU with edits from OFA. I have attached a clean and track-changes versions for your easy reference.

Please let us know if you have any questions.

Thanks,
Gavin He

From: Chander, Sunita (ENERGY) [mailto:Sunita.Chander@ontario.ca]
Sent: Monday, December 12, 2016 11:53 AM
To: Hunter, Robert A. (ENERGY) <Robert.A.Hunter@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Singh, Inayat (ENERGY) <Inayat.Singh2@ontario.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Benefit Implementation

Hi all, just wanted to remind everybody about timing as we will need to get these MOUs finalized for a Jan 1 implementation date. Can I ask when we can all agree to an MOU that can be signed by ADMs?

On our end we need to send to our DM and MO as well, so I would like to send that mid-week this week.

-Sunita

Sunita Chander
A/Director, Distribution and Agency Policy Branch
Strategic, Network and Agency Policy Division
Ministry of Energy

77 Grenville St., 6th Floor
Toronto ON M7A 2C1
Tel: 416-325-6594
Email: sunita.chander@ontario.ca

From: Hunter, Robert A. (ENERGY)
Sent: December 8, 2016 4:05 PM
To: Kim, John (OFA)
Cc: Kandeepan, Ken (OFA); Singh, Inayat (ENERGY); Salman Qadir; Gavin He; Chander, Sunita (ENERGY)
Subject: RE: Benefit Implementation

Hi John,

In response to your question we have updated the language in the MOU Section 3. b) to be more clear. Please see the below language that we plan to include in this MOU.

> "The OFA will keep and maintain all records related to the OREC for a period of seven (7) years, and will provide the Ministry with electronic copies (or paper copies, if requested by the Ministry) of such of those records as the Ministry may request from time to time."

Does this language provide the level of clarity that you are looking for? If not, please let me know and we can discuss.

Thank you,

-Robert
(416) 325-6899

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: December-08-16 9:25 AM
To: Hunter, Robert A. (ENERGY); Chander, Sunita (ENERGY)
Cc: Kandeepan, Ken (OFA); Singh, Inayat (ENERGY); Salman Qadir; Gavin He
Subject: RE: Benefit Implementation

Hi Sunita, Robert,

We need some clarity on what you mean by this not most likely.

Thanks,

John.

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Thursday, December 08, 2016 9:03 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Singh, Inayat (ENERGY)

<Inayat.Singh2@ontario.ca>; Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: RE: Benefit Implementation

Hi John,

In regards to records that the OFA must maintain related to the OREC, we do not need to have direct database access to your records, but records should be available upon request of the Ministry. Most likely we would ask for documents to be shared electronically via email if necessary, unless directed otherwise.

Regards,

-Robert
(416) 325-6899

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: December-08-16 8:47 AM
To: Hunter, Robert A. (ENERGY)
Cc: Kandeepan, Ken (OFA); Singh, Inayat (ENERGY); Chander, Sunita (ENERGY)
Subject: RE: Benefit Implementation

Hi Robert,

In the version you sent back, you mention the Ministry having full access to such records. What are your expectations of how such access to take place?

John.

From: Hunter, Robert A. (ENERGY) [mailto:Robert.A.Hunter@ontario.ca]
Sent: Monday, December 05, 2016 10:21 AM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Singh, Inayat (ENERGY) <Inayat.Singh2@ontario.ca>; Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>
Subject: RE: Benefit Implementation

Hello,

Following up on Sunita's earlier email; have you had a chance to review the attached MOU? If there are any changes please let us know as soon as possible. We are aiming to have this finalized by the end of this week.

Thank you,

-Robert
(416) 325-6899

From: Chander, Sunita (ENERGY)
Sent: November-27-16 2:15 PM
To: Kandeepan, Ken (OFA); Kim, John (OFA)
Cc: Hunter, Robert A. (ENERGY); Singh, Inayat (ENERGY); An, Tai (ENERGY/MEDEI/MRI)
Subject: RE: Benefit Implementation

Hi, attached is the ENERGY-OFA MOU, one or two adjustments in the attached.

If you are in agreement let us know and we can clean up and get ready for signature. We'll need to complete this first week of December.

Thanks,

<< File: MOU - MoE OFA- DAP Nov 25.doc >>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: September 30, 2016 10:21 AM
To: Reid, Michael (ENERGY); Kandeepan, Ken (OFA); Chander, Sunita (ENERGY); Kim, John (OFA)
Cc: Latto-Hall, Arla (ENERGY)
Subject: RE: Benefit Implementation

Hi Michael,

Attached is a working draft of the MOU. OFA Legal had based it on the OCEB one, slightly updated for the proposed new rebate. I'm sure Energy will have some updates to suggest on it too.

Ron << File: MOU - MoE OFA re OREC(v3)_Clean.doc >>

-----Original Appointment-----
From: Reid, Michael (ENERGY) [mailto:Michael.Reid@ontario.ca]
Sent: September-27-16 09:14
To: Reid, Michael (ENERGY); Ken Kandeepan; Ronald Kwan; Sunita Chander (ENERGY)
Cc: Arla Latto-Hall (MCSS); Betty Wilson (ENERGY); Angie Georgakakos; Rasika Yatawara; John Kim
Subject: Benefit Implementation
When: September-30-16 10:30-11:30 (UTC-05:00) Eastern Time (US & Canada).
Where: Energy-R-77 Grenville-6B / Teleconference: 416-212-8014; Access Code: 2271608#

Update: Ken to call in.

Location: 77 Grenville Street, 6th Floor, Boardroom 6B

Upon arriving on the 6th floor, please call Betty at 5-6559 on the lobby phone.

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

Independent Electricity System Operator
PHYSICAL INVOICE

Independent Electricity System Operator
Station A, Box 4474
Toronto, ON
M5W 4E5

HST: 870513959RT0002
Issue / Re-Issue Date: 14-FEB-2017

MINISTRY OF ENERGY
880 Bay Street
3rd Floor
Toronto, ON M7A 2C1
Canada

Invoice: PI00018201
Invoice Date: 14-FEB-2017
MP ID: 110354
MP GST/HST: N/A

Please send payment by WIRE or EFT to:

Bank Name: **TD Bank**
Bank ID Number: **0004**
Bank Account Number: **0690-0458762**

Bank Acc Type: **Settlement Clearing**
Bank Transit Number: **10202**

For all inquiries contact:
IESO Account Representative
Tel: 905-403-6900
Toll Free: 1-888-448-7777

Comments:

Charges for settlement statements issued: From 01-JAN-2017 To 31-JAN-2017

Charge Type	Description	Amount
1465	ONTARIO CLEAN ENERGY BENEFIT (-10%) PROGRAM BALANCING AMOUNT	$854,636.32
1467	ONTARIO REBATE FOR ELECTRICITY CONSUMERS(8% PROVINCIAL REBATE) BALANCING AMOUNT	$31,992,580.05
Invoice Total:	$CAD	32,847,216.37

Payment Due Date 16-FEB-2017

This invoice also constitutes a debit/credit note for GST/HST purposes

From:	John Kim
To:	Shajee Kathirgamanathan; Bruno Amara
Subject:	RE: OREC/OCEB February 2017 IESO Invoice
Date:	Wednesday, March 15, 2017 4:48:25 PM

I know the MOU is yet to be signed but doesn't the MOU require operations folks to be emailed?

From: Shajee Kathirgamanathan
Sent: Wednesday, March 15, 2017 4:42 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: OREC/OCEB February 2017 IESO Invoice
Importance: Low

Hi,

At the moment, I'm the only one receiving these OCEB invoices from EFB.

Hope it's ok if I ask Energy to CC both/one of you along with Gavin and Salman to ensure we get coverage in case I'm away or miss this.

I'm compiling these invoices here S:\Users\CEF\Hydro 2017\Electricity Prices\OREC\Invoices.

There's nothing actionable at the moment but in the future we might want to consider an OREC model at which point it would be useful to have these at the ready

Thanks,
Shajee

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Zheng, Sean (ENERGY) [mailto:Sean.Zheng@ontario.ca]
Sent: Wednesday, March 15, 2017 3:52 PM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; Josephine Lam <Josephine.Lam@ofina.on.ca>; Sandy Roberts <Sandy.Roberts@ofina.on.ca>; Asokan Sadasivan (MEDTE/MRI) <Asokan.Sadasivan@ontario.ca>; Kamala Sinnadurai (ENERGY) <Kamala.Sinnadurai@ontario.ca>; Gregor Schoenebeck <Gregor.Schoenebeck@ofina.on.ca>
Cc: Tai An (ENERGY) <Tai.An@ontario.ca>; Sunita Chander (ENERGY) <Sunita.Chander@ontario.ca>; Pratima Gounden (ENERGY) <Pratima.Gounden@ontario.ca>; Hunter, Robert A. (ENERGY) <Robert.A.Hunter@ontario.ca>
Subject: OREC/OCEB February 2017 IESO Invoice

Hello,

Please find attached the OREC/OCEB IESO Invoices for the Month of February 2017.

Please note that the IESO has issued **two** OREC/OCEB invoices for February. The amount issued on March 14 included an overstated amount. A second credit invoice has been issued in the morning of March 15.

The IESO has instructed the Ministry to net the 2 invoices and pay the difference of $74,085,131.77, as stated in the email attached.

This invoice is being sent based off of the previous OCEB mailing list. If you would like to change the contacts in your organization that receive this email, please respond to this email and I will make the necessary changes.

Thank you,

Sean Zheng
Financial Analyst
416-617-6519
sean.zheng@ontario.ca
Ministry of Economic Development & Growth
Ministry of Energy
Ministry of Infrastructure
Ministry of Research, Innovation & Science

From: Salman Qadir
To: Bruno Amara
Cc: John Kim; Adam Prokop; Shajee Kathirgamanathan
Subject: RE: One point to confirm
Date: Friday, April 28, 2017 2:26:47 PM

Hi Bruno,

Yes – that is what the understanding has been. i.e. OPGT can go to the market every month but may wait a few months to go in larger tranches.

The purchase of regulatory asset is not obligations as per the legislation we have seen to date.

Salman

From: Bruno Amara
Sent: Friday, April 28, 2017 2:25 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>
Subject: One point to confirm

Hi Salman

I was not aware of the point below. Have seen this in any of the communication. Anyone else?

"OPG Trust is not expected to access public capital markets monthly, nor is it required to purchase the regulatory asset."

Bruno

From:	Salman Qadir
To:	Adam Prokop; Bruno Amara; John Kim
Cc:	Francisco Chinchon; Shajee Kathirgamanathan; Gavin He
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 9:28:28 PM
Attachments:	2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf

Just to add, I retrieved the March 1 Cabinet Submission deck that is saved in the shared folder and the last page says "APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION –APPENDIX" – do we have this anywhere? Maybe there is something in there that Ken is referring to (which is could equally likely be what Bruno and Adam have provided below).

From: Adam Prokop
Sent: Wednesday, April 26, 2017 9:15 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Thanks Bruno,

Yes that is it. A key part is point is c (50% of the most subordinated debt) - OPG needs to own at least 50% of the subordinated debt (the equity tranche) with this portion suggested to be about 5% of the Trust. This is the 5% that OPG is borrowing from the market. This is why the borrowing is capped from the Province at an epsilon below 45%.

AP

From: Bruno Amara
Sent: Wednesday, April 26, 2017 9:01:23 PM
To: Adam Prokop; John Kim
Cc: Francisco Chinchon; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Thanks Adam

One of the list of 14 in the white paper. This was one of the conditions required for OPG to consolidate the Trust

1. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    a. The Trust
    b. Any of OPG's investments in the Trust
    c. The most subordinated debt of the Trust

From: Adam Prokop
Sent: Wednesday, April 26, 2017 8:51 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

It's from the OPG white paper.

AP

From: John Kim
Sent: Wednesday, April 26, 2017 7:17:17 PM
To: Adam Prokop
Cc: Francisco Chinchon; Salman Qadir; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Could you remind me. The condition in the third from bottom bullet. Where did that come from?

On Apr 26, 2017, at 6:56 PM, Adam Prokop <Adam.Prokop@ofina.on.ca> wrote:

> Hello all,
>
> Here are some of my points
>
> - Equity could affect OPG's GBE status if it is effectively seen as an interest-free loan; if the return from the structure does not justify an equity position. Otherwise, the Province could continue to inject equity into OPG in perpetuity for no reason. The fact that the Province is the sole shareholder strengthens this point. OPG could be seen as reliant on this funding for operations.
> - The rating agencies would need to be brought into the discussion - would have to see what cash return from the structure would limit the impact on some ratios; the fact that the capital markets debt will be in a SPV means that portion is bankruptcy remote and may not factor into calculations.
> - OPG is at currently at approximately 65% equity, 35% debt while the deemed structure is 45% equity and 55% debt. OPG does have the capacity to take on more debt within the deemed structure. Furthermore, if the structure is separate from the rate regulation process, the deemed structure is not as relevant.

- The related GBE status factor is if OPG can maintain operations and meet their obligations through revenues generated outside of the Province. As long as the debt issued from the Province to OPG is at the market rate, and the revenue from the structure is reasonably expected to cover expenses, the GBE status may not be threatened.
    - There is no minimal credit rating or minimum debt to equity ratio to retain GBE status.
- The markets could also take on more than 51% of the debt from the SPV (51% is minimum).
- There is also the consideration for if the Province issued debt directly to the SPV (i.e., buying securities from the SPV directly rather than going through OPG).
    - Nothing in the 14 conditions prevents this.
    - Need to confirm with OPG auditors.
- The relevant condition is that the Province cannot indirectly (i.e., through OPG) or directly (i.e., to the SPV) finance more than 44% of the structure, either through equity or debt.
- Preferred shares with cumulative dividends if not paid and over a 10 year term would likely get a 50% equity and 50% debt treatment from DBRS, which would lessen the pressure on the capital structure if Province finances OPG directly.
- There could also be a mix of debt and equity financing from the Province over time to OPG.

Overall, a discussion with the credit rating agencies and OPG auditors would probably help clarify options if this is feasible.

Kind regards,

Adam Prokop

From: Francisco Chinchon
Sent: Wednesday, April 26, 2017 6:08 PM
To: Salman Qadir
Cc: John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

How contributing equity to a company that retains a good credit rating could affect its GBE status?

On Apr 26, 2017, at 6:04 PM, Salman Qadir <Salman.Qadir@ofina.on.ca> wrote:

> My counter to that would be if the Province is doing equity vs debt on the basis you have mentioned, that could also simply put at risk the GBE status, no?
>
> I haven't seen the 14 conditions but I'll check as well.
>
> Sent from my iPhone
>
> On Apr 26, 2017, at 5:46 PM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:
>
> > I think the challenge starts once you cross the deemed capital structure or when OPG starts getting downgraded for carrying too much debt. If the loans provided by the Province are not something a prudent lender would agree to do you could potentially be putting at risk the GBE status. What you should do is compare the potential outcome of the different structures against the test that needs to be met to remain a GBE. You should check this on top of the 14 other points.
> >
> > ---
> >
> > **From:** John Kim
> > **Sent:** Wednesday, April 26, 2017 5:46 PM
> > **To:** Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
> > **Cc:** Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> > **Subject:** RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
> >
> > Ok, could we take a look at the 14 conditions to double check?
> >
> > ---
> >
> > **From:** Salman Qadir
> > **Sent:** Wednesday, April 26, 2017 5:40 PM
> > **To:** John Kim <John.Kim@ofina.on.ca>; Bruno Amara

<Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Hi John,

I think Adam and I had discussed this briefly. We were questioning why the Province could not issue debt to OPG instead of Equity (or even directly into the Trust). The only reason that came to mind was to effect OPG's credit rating (which TD says would be treated as "intermediate equity" for option 3) – don't think GBE status would be affected.

The OEFC already lends to OPG which hasn't seemed to effect its GBE status… not sure what I'm missing here..

Salman

From: John Kim
Sent: Wednesday, April 26, 2017 5:19 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

I don't follow Ken's bullet #1. Maybe I'm missing something due to having too many files on the go but is it true that if we have a loan to OPG, that the GBE treatment falls apart?

From: John Kim
Sent: Wednesday, April 26, 2017 4:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop

<Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Any comments? I overlooked this email from Carlos.

John

From: Ken Kandeepan
Sent: Wednesday, April 26, 2017 4:20 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Carlos, and others

I believe the discussion with TDS will be scheduled for either Thursday of Friday and I am not available on both days so here are my comments.

- Page 3: Option#3 is not feasible since it is essentially a type of debt from the Province to OPG and may impact the latter's GBE status, which jeopardizes the entire arrangement.
- Options 2 and 4 are superior to 1 from the Province's perspective providing a greater assurance of dividends, which means less cash flow risk for the province.
- The last bullet on page 4 is a little confusing especially the phrase; "and the debt issued to OPG by the SPV/Trust". It's actually the other way around, OPG uses the cash flow from the equity injection to issue debt to the Trust.
- The cash flow from the equity injection is essentially cost free for OPG however, the Trust will generate interest income on 100% of its debt, as such when the trust is consolidated with OPG, the latter will

show a net interest income. This income can be paid out as dividends to the Province and in essence defray the Province's interest payments on the debt incurred to fund the equity injection.

Thanks and as always happy to discuss.

Ken k

From: Carlos Yep
Sent: Tuesday, April 25, 2017 11:47 AM
To: James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Attached are some initial comments from TD.

We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]

Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

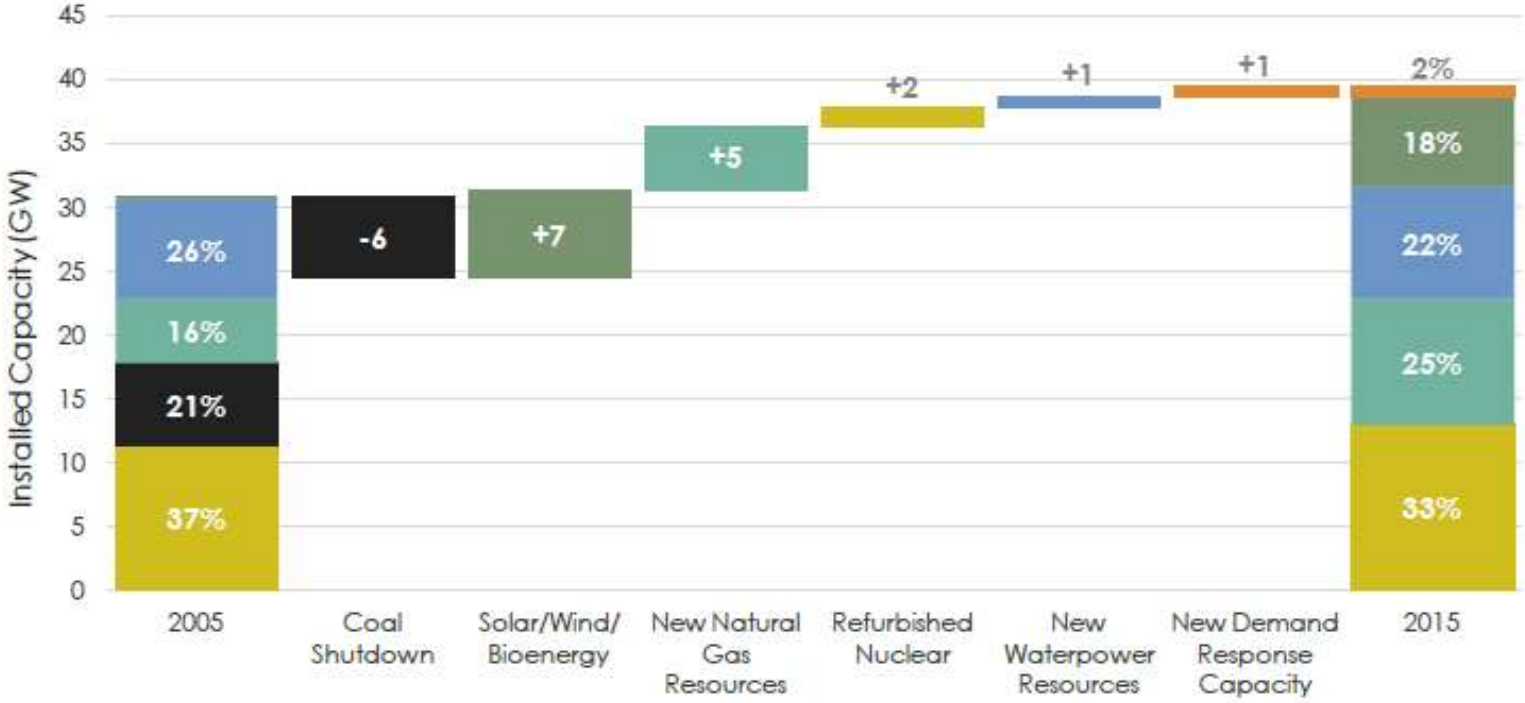
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



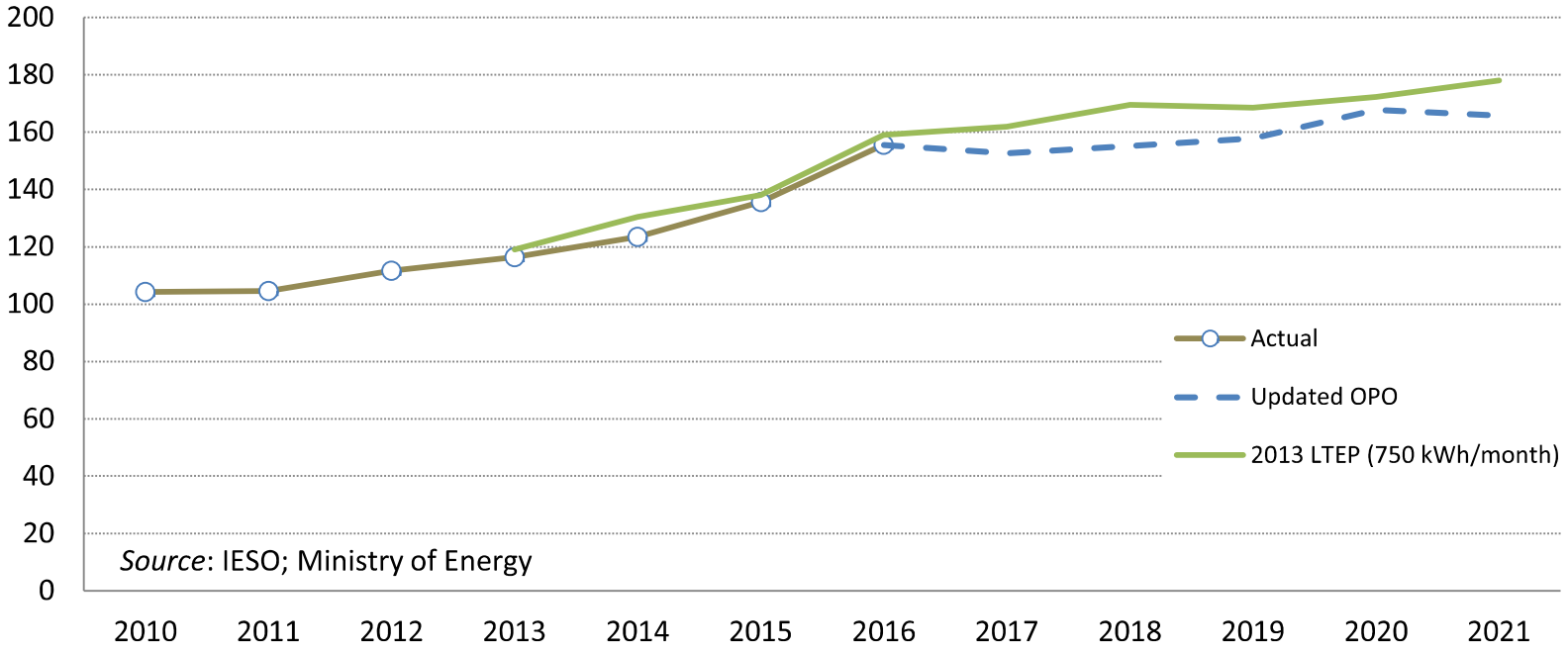
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

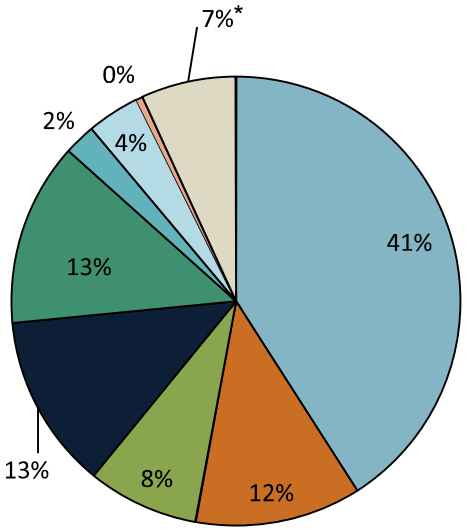
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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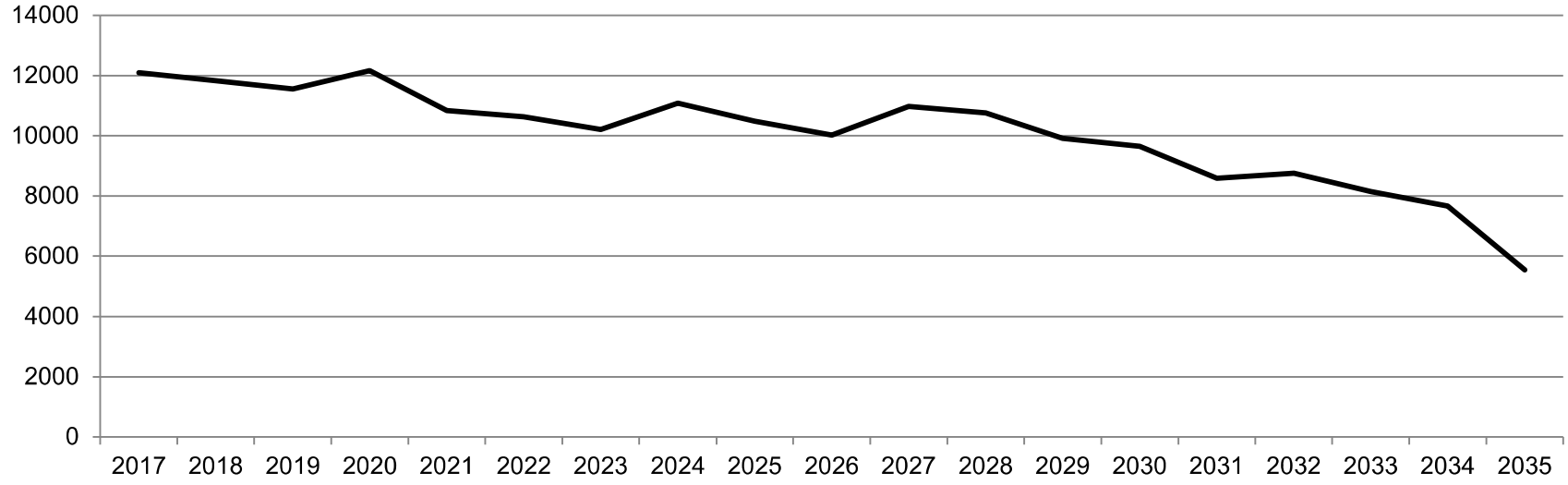
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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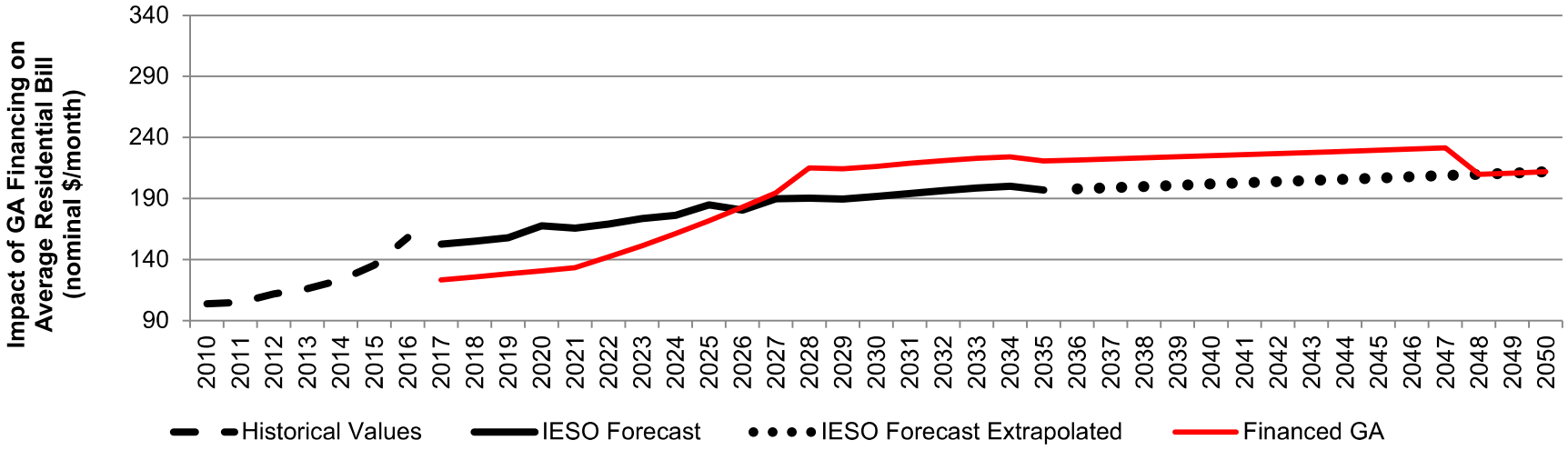
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

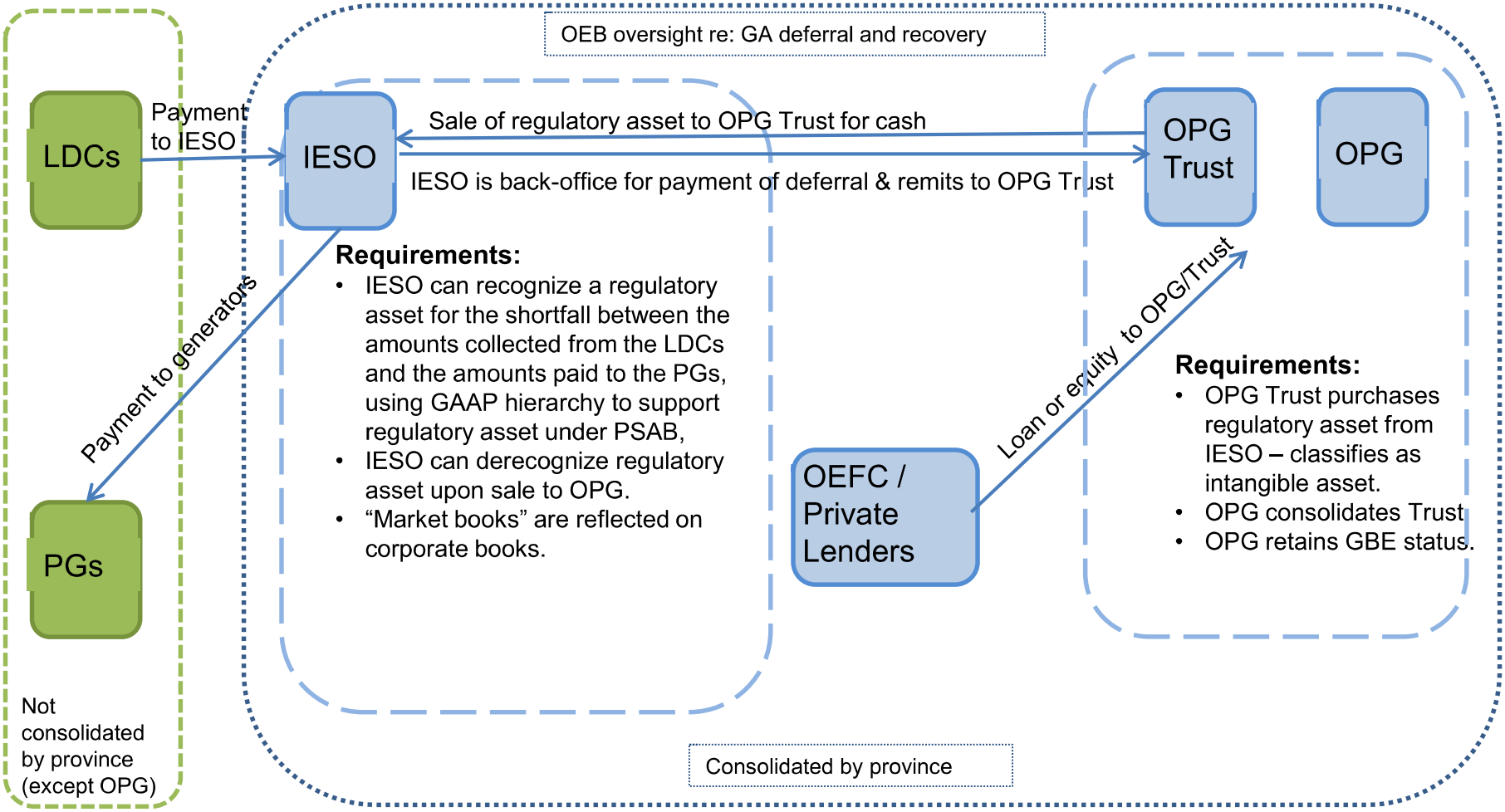
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

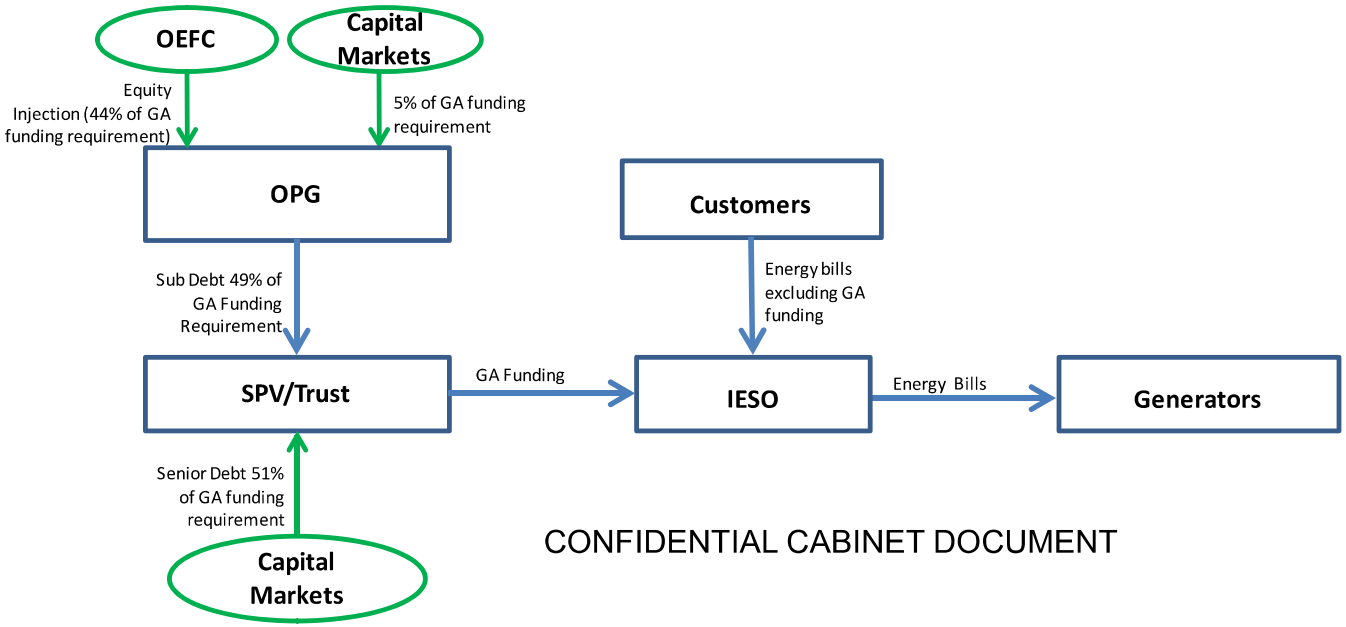
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

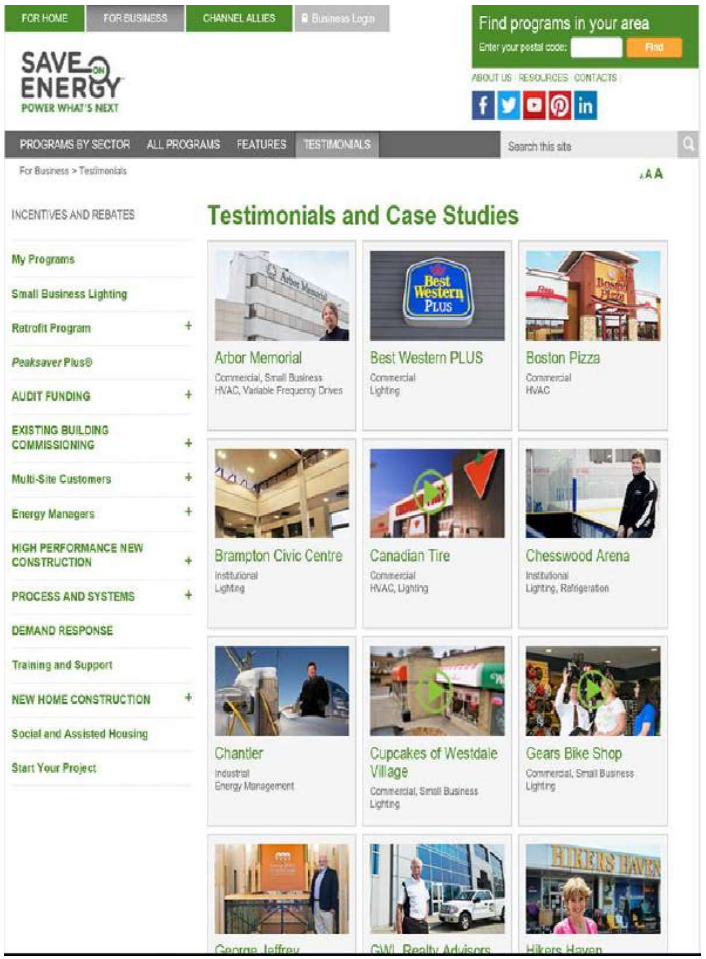
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



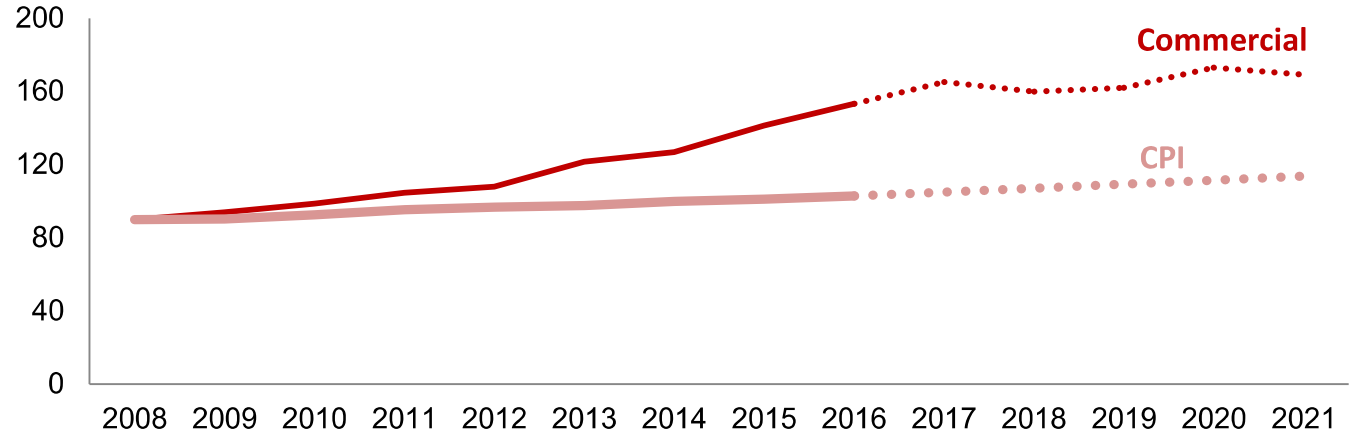
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

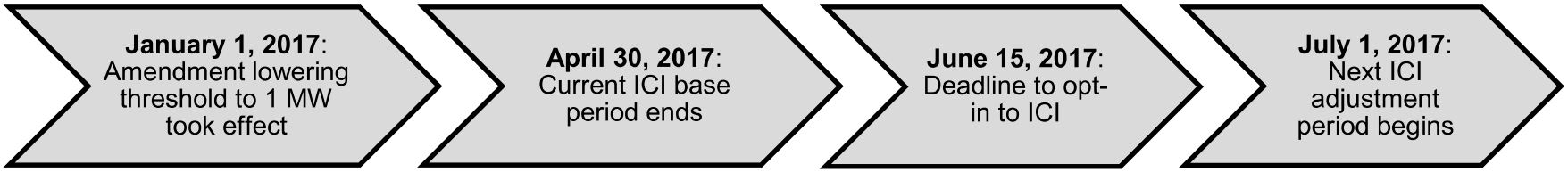
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

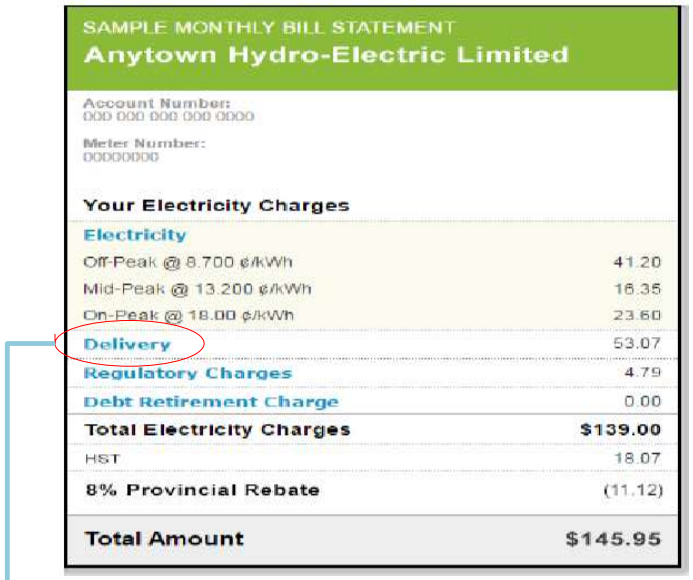
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

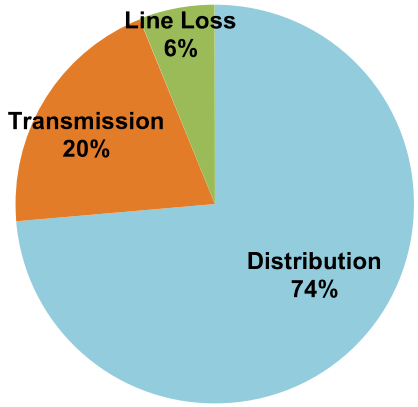
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

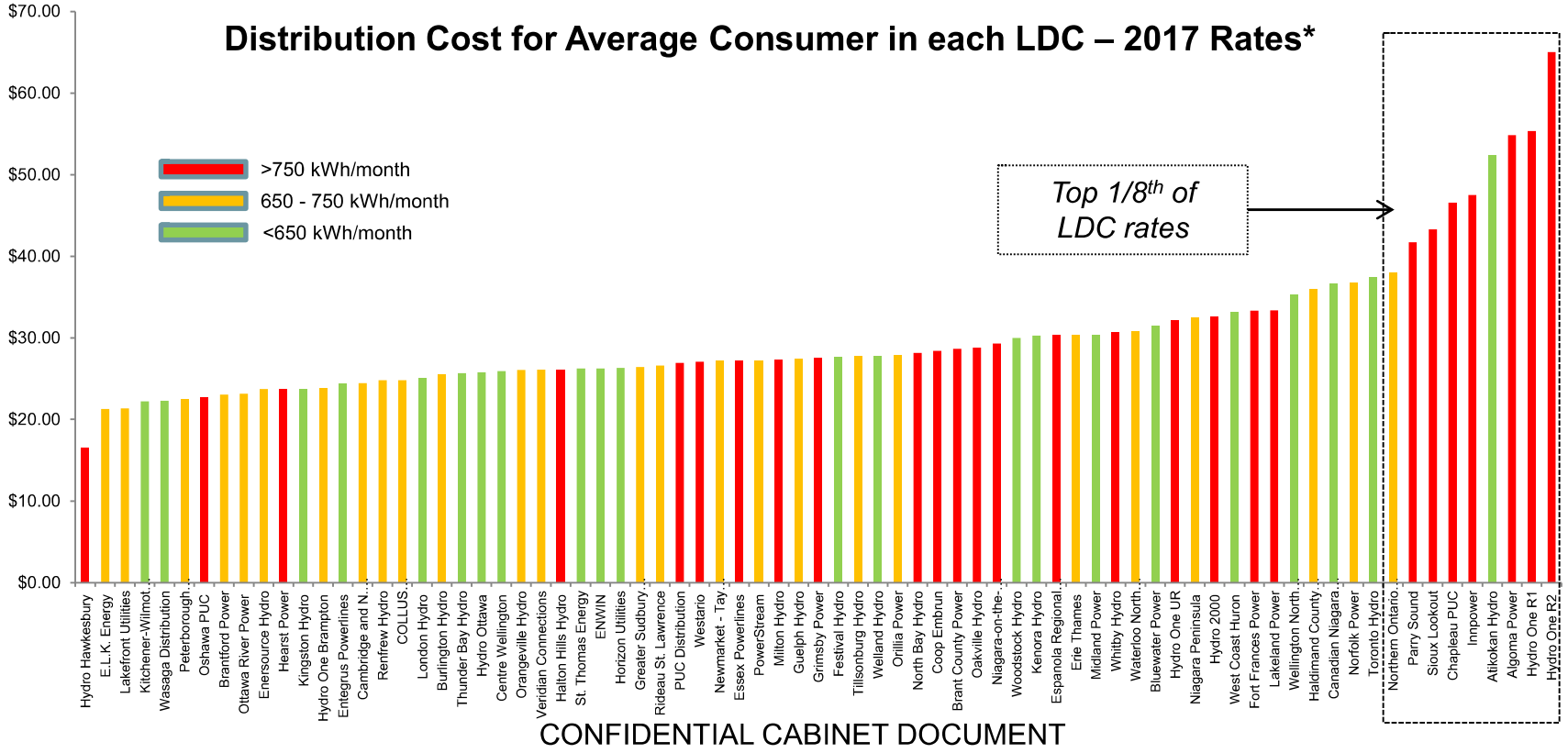
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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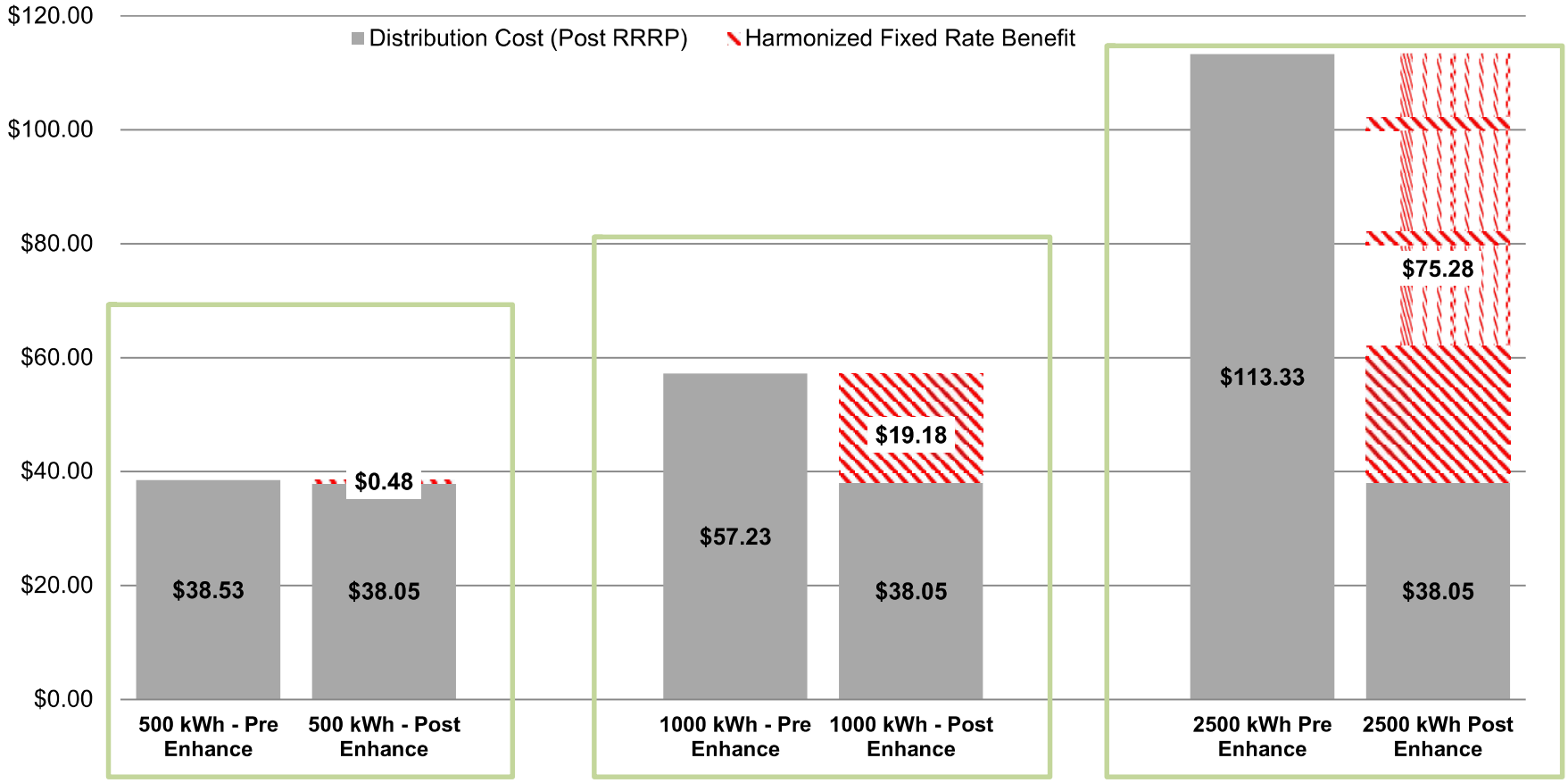
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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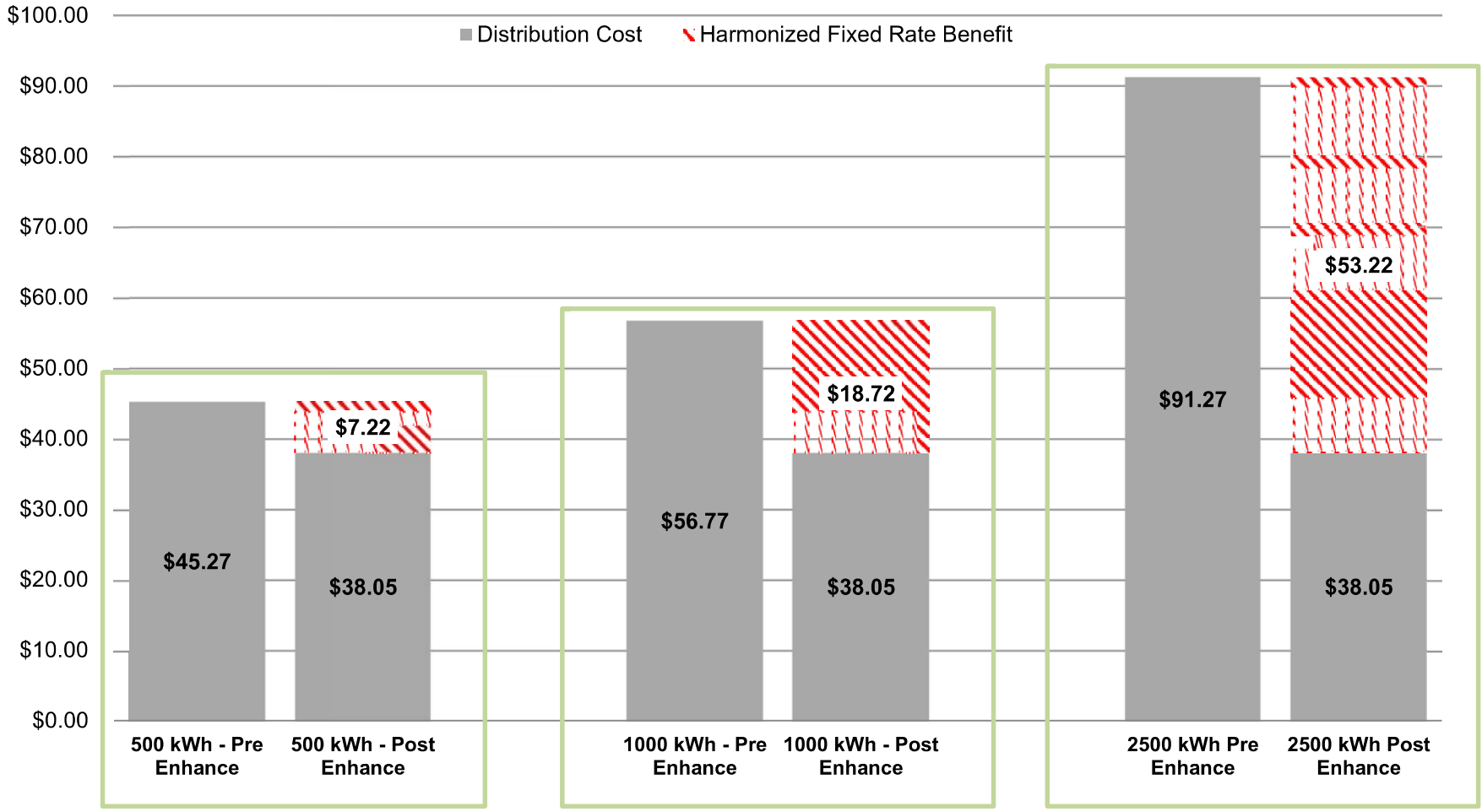
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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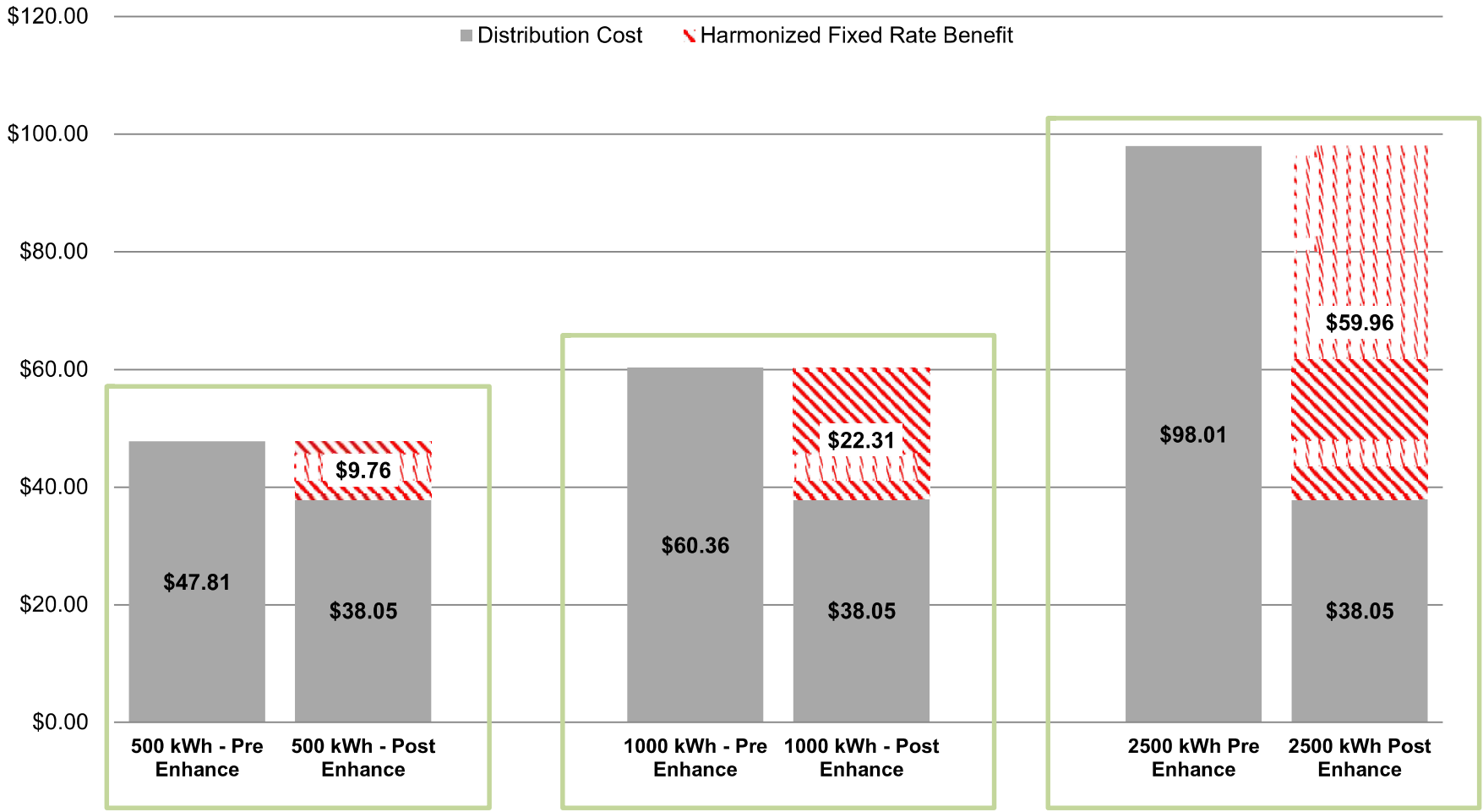
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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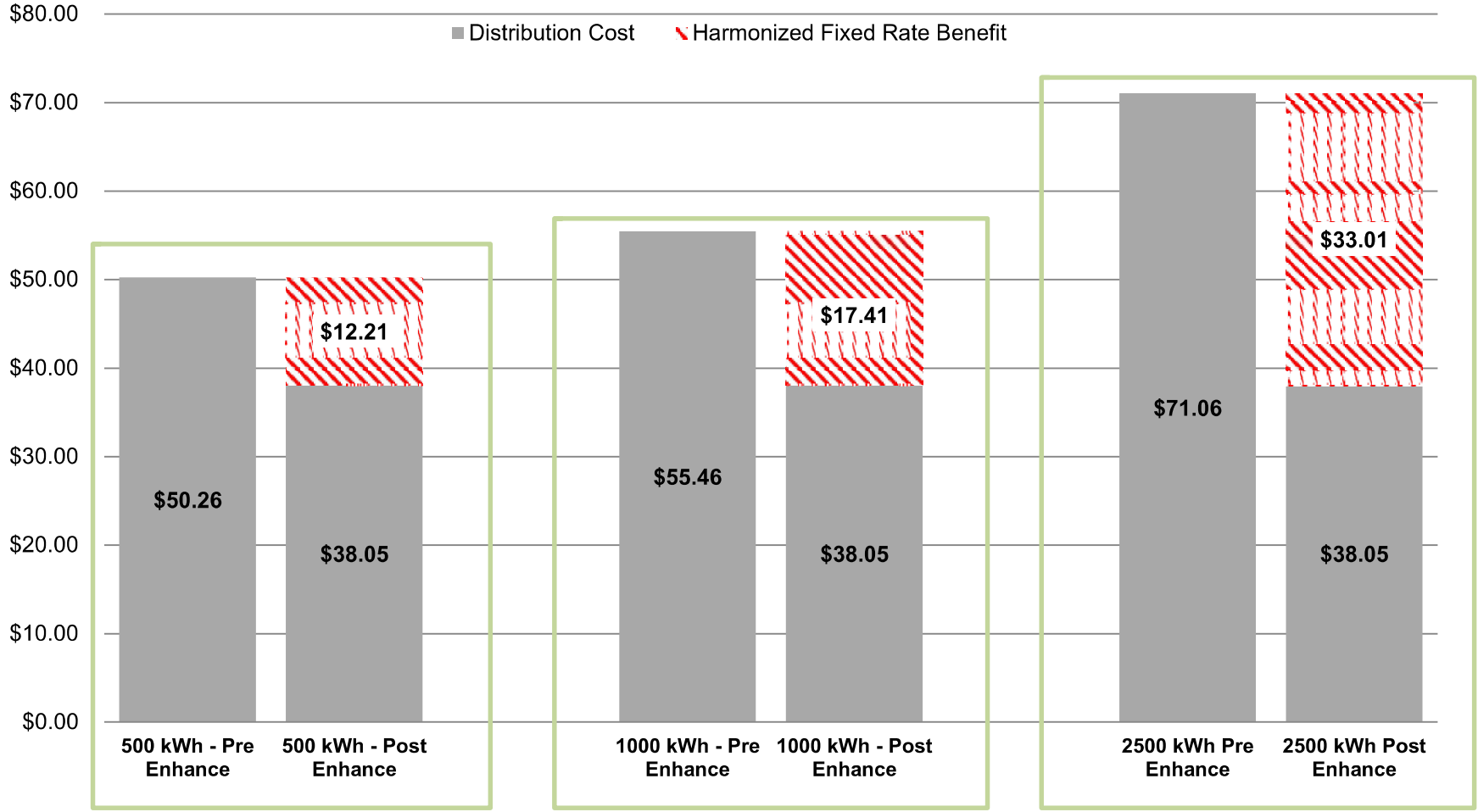
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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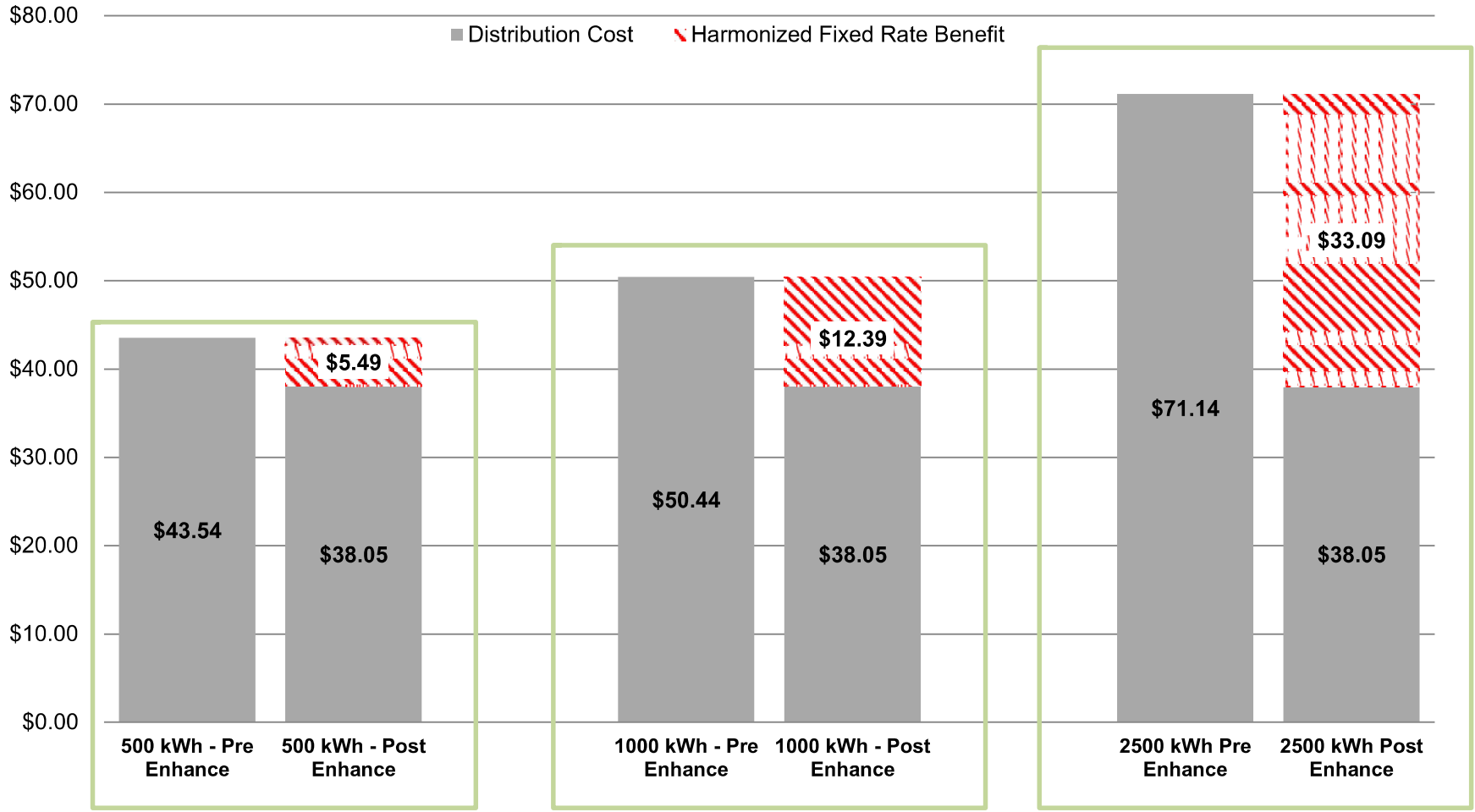
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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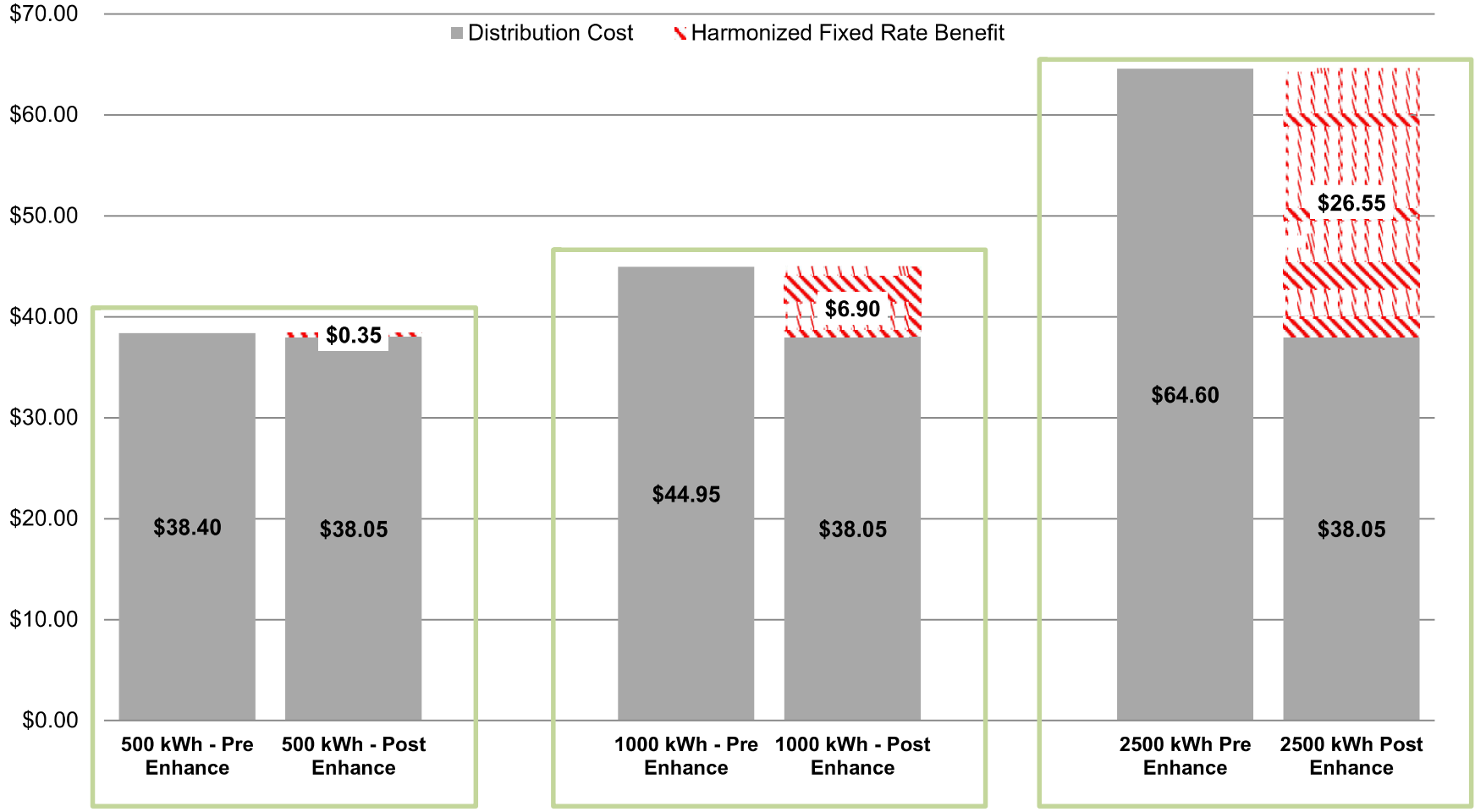
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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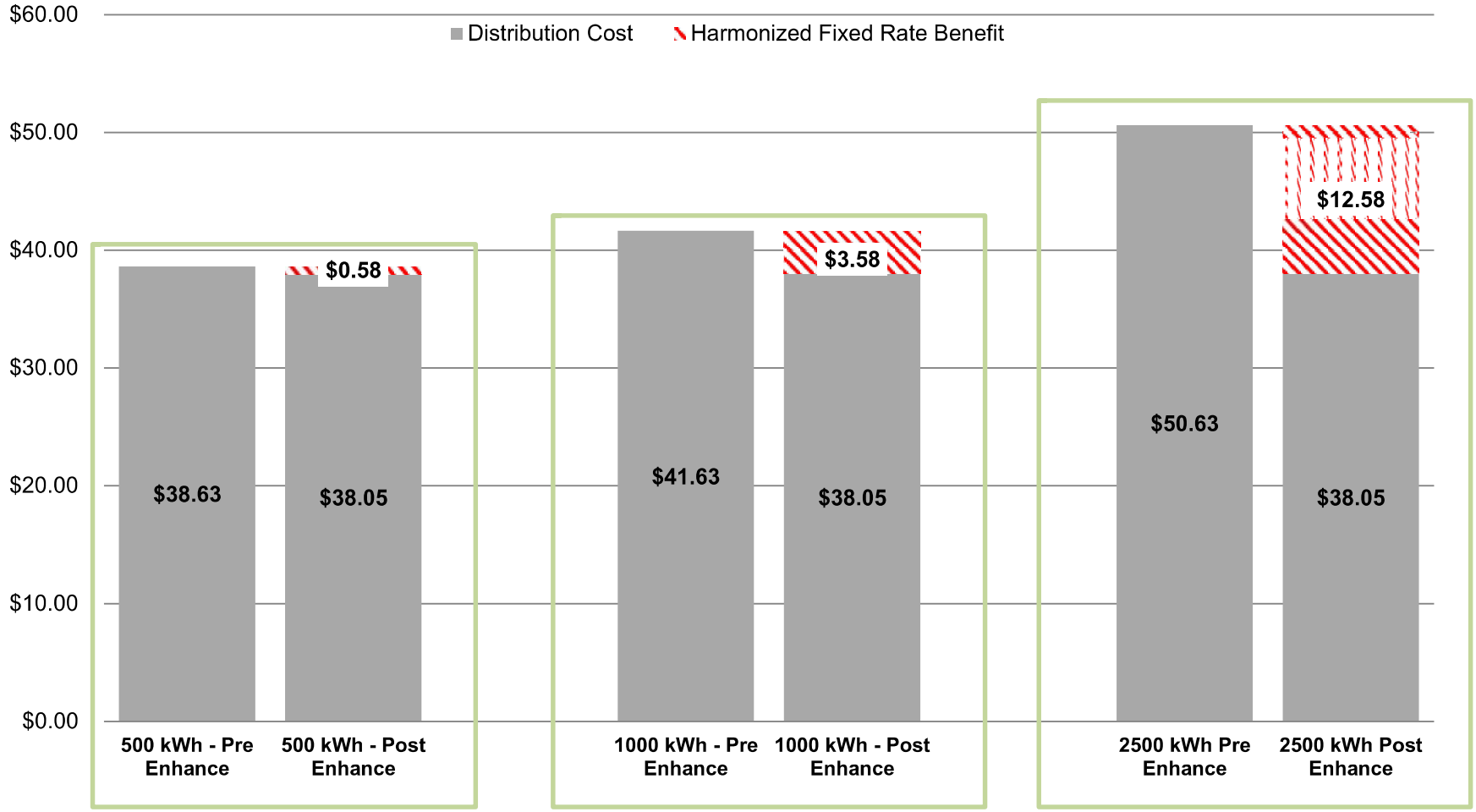
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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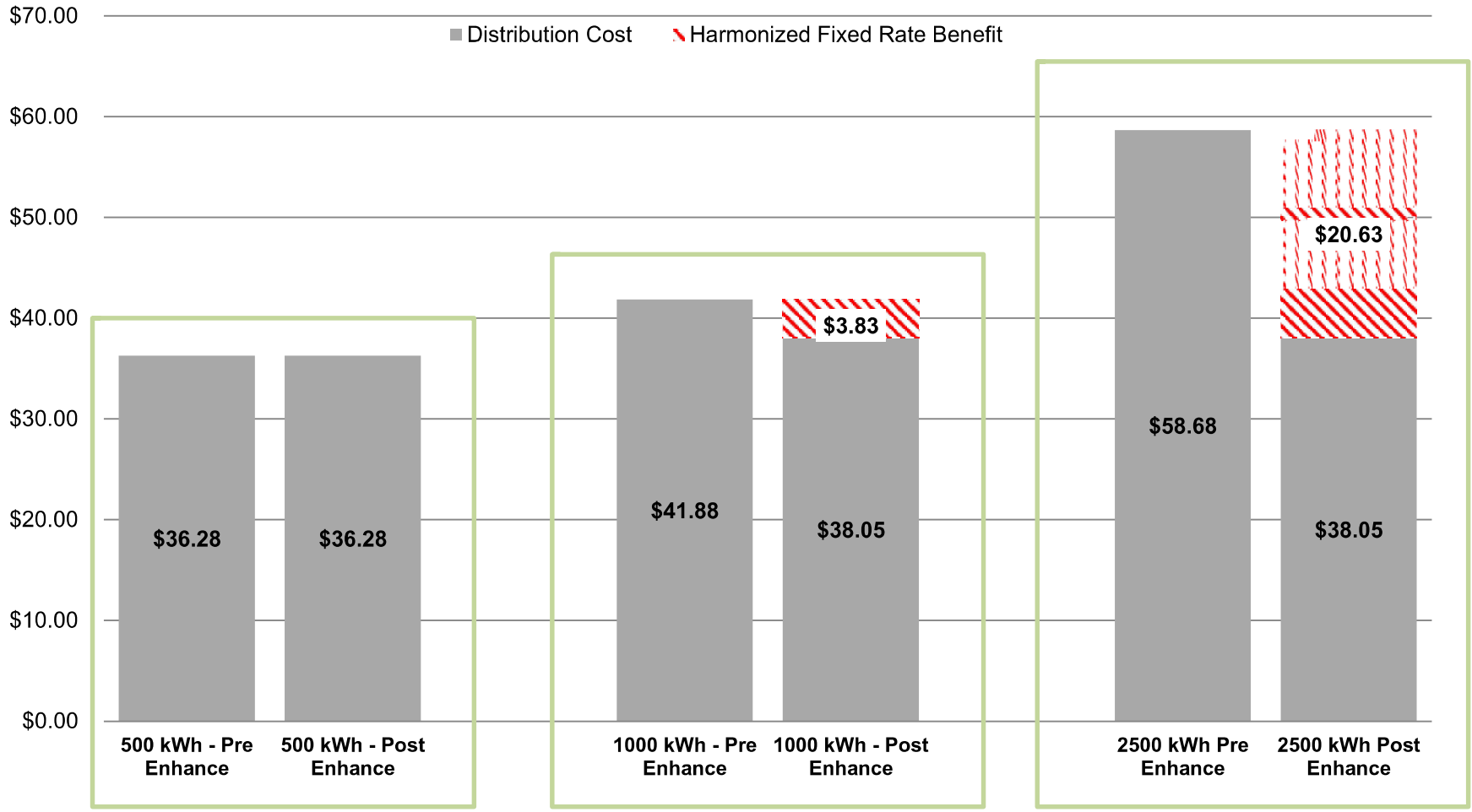
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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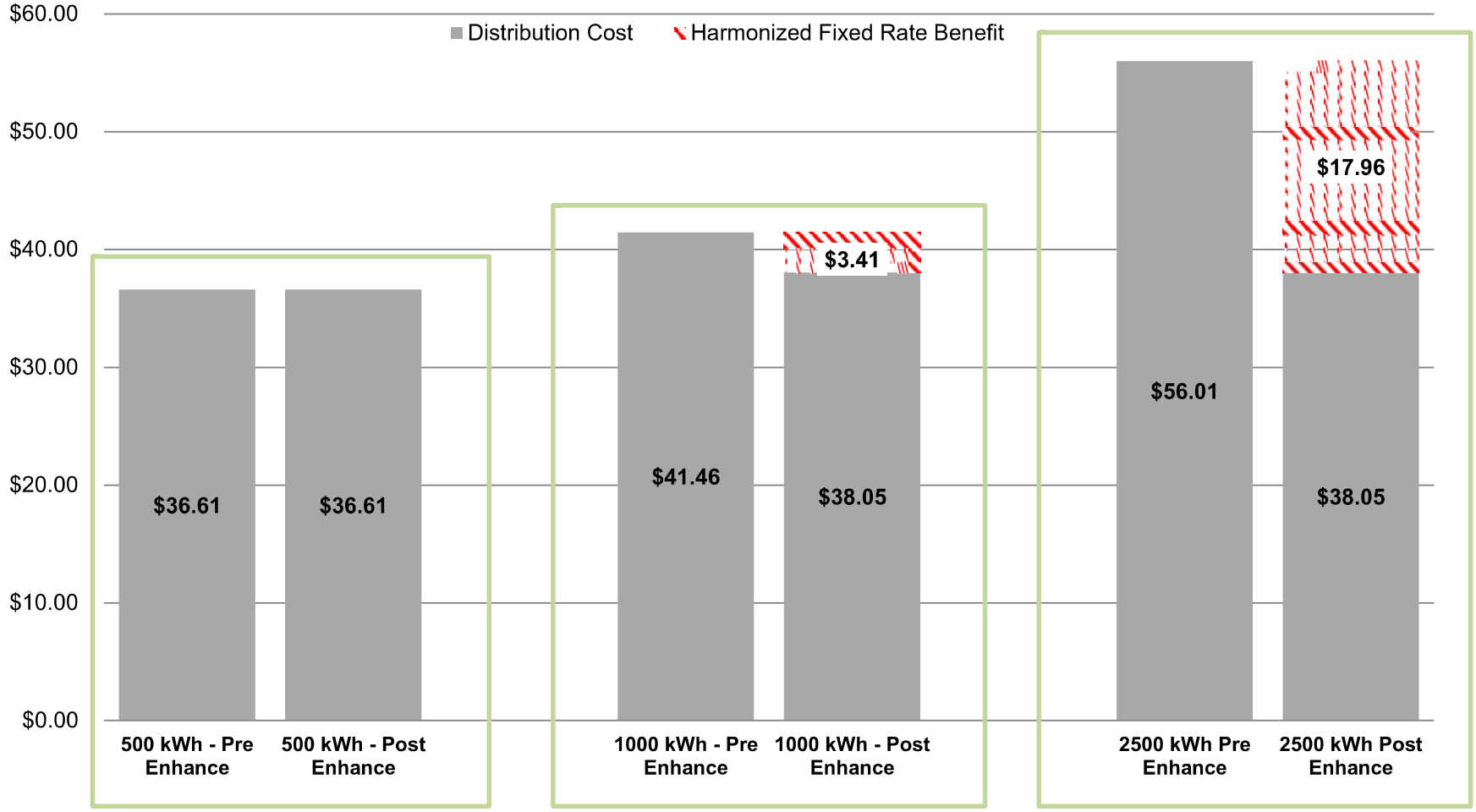
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

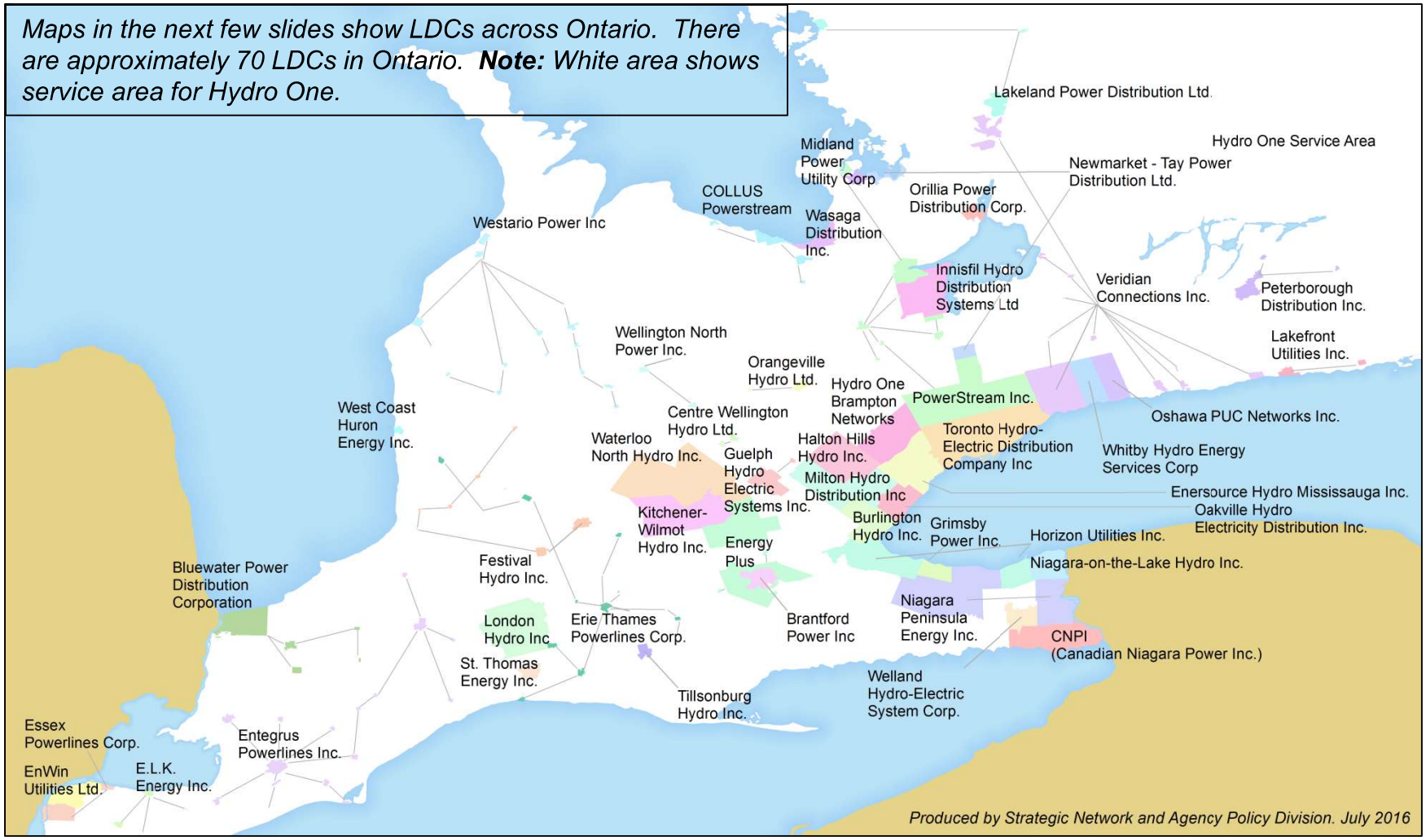
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

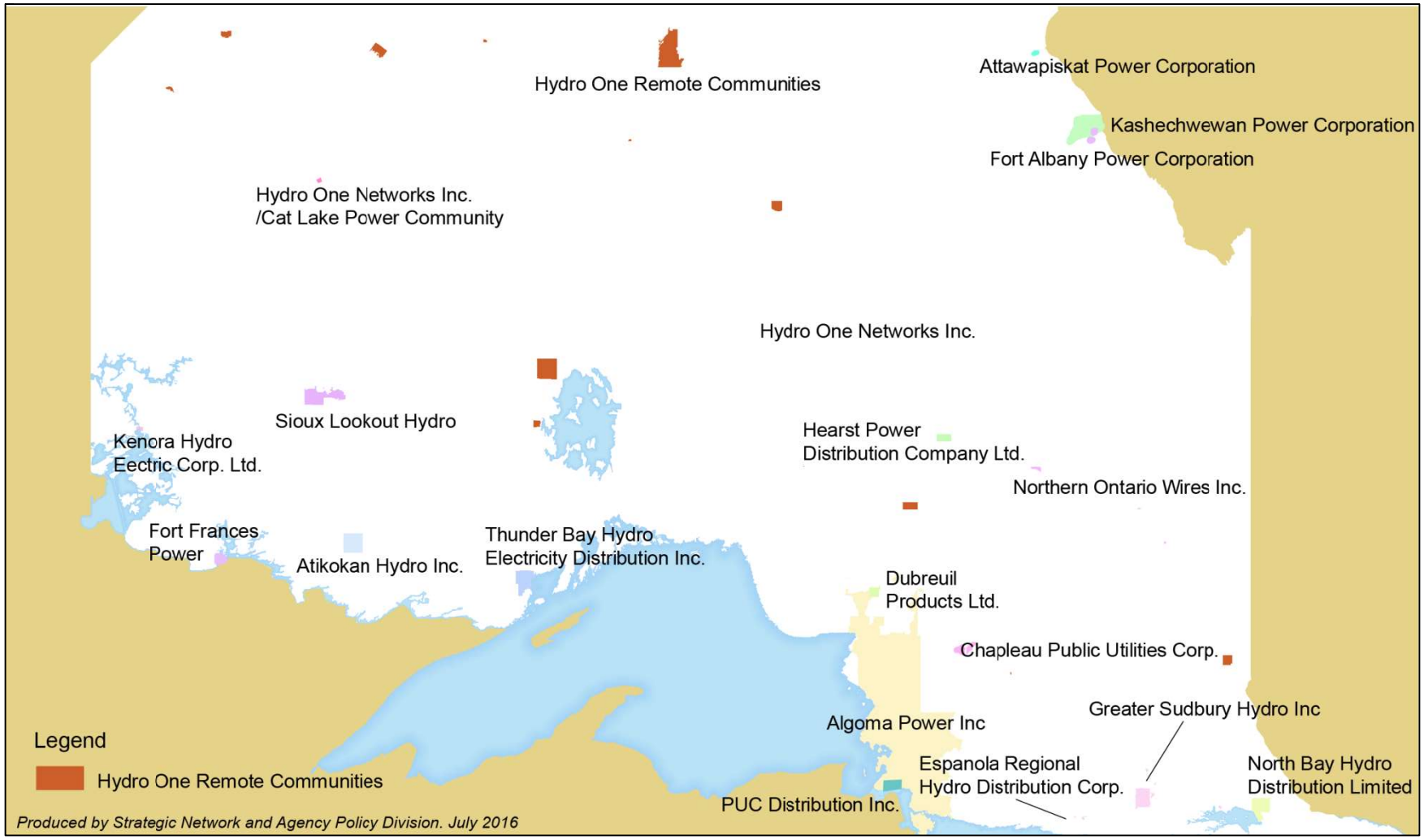
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

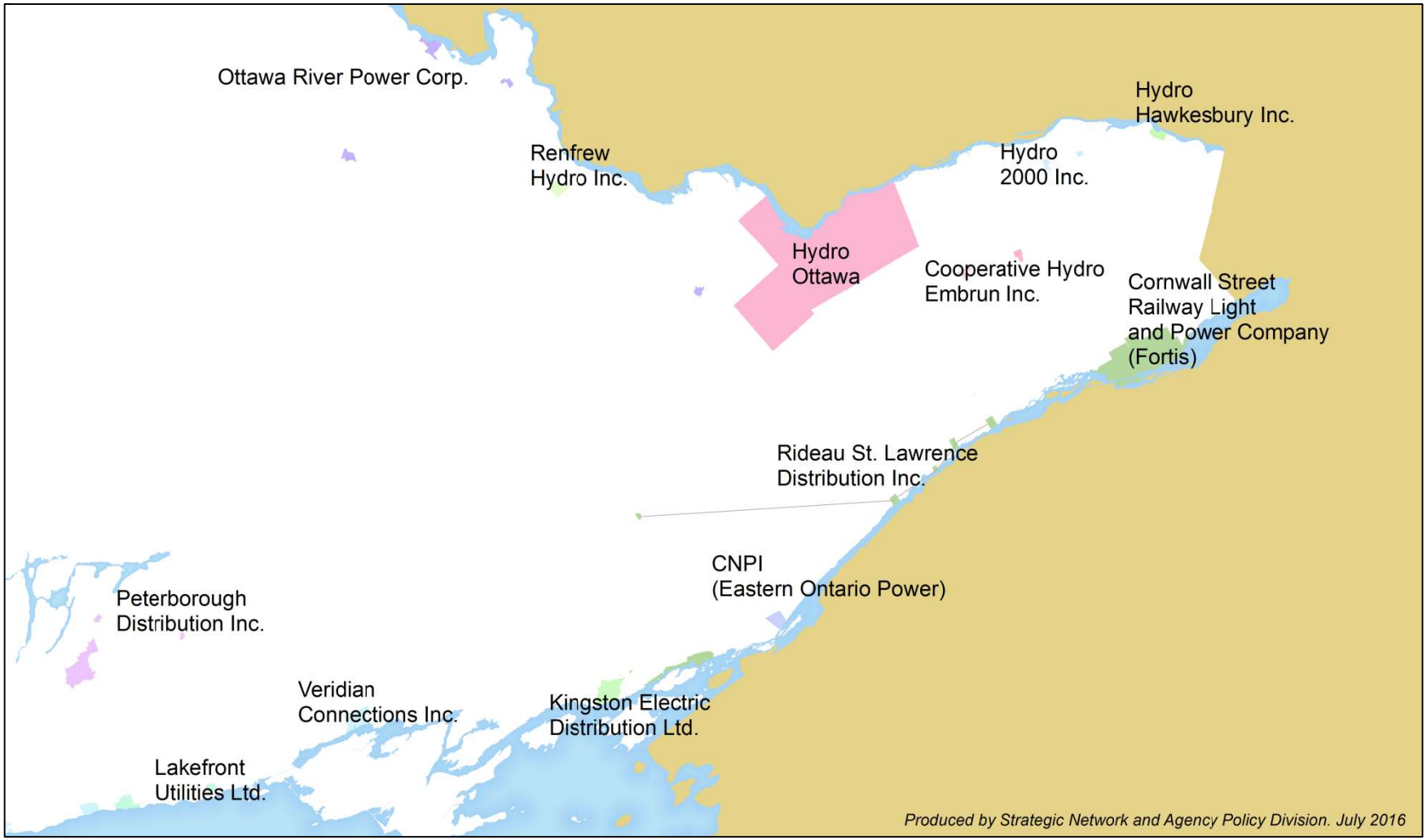
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

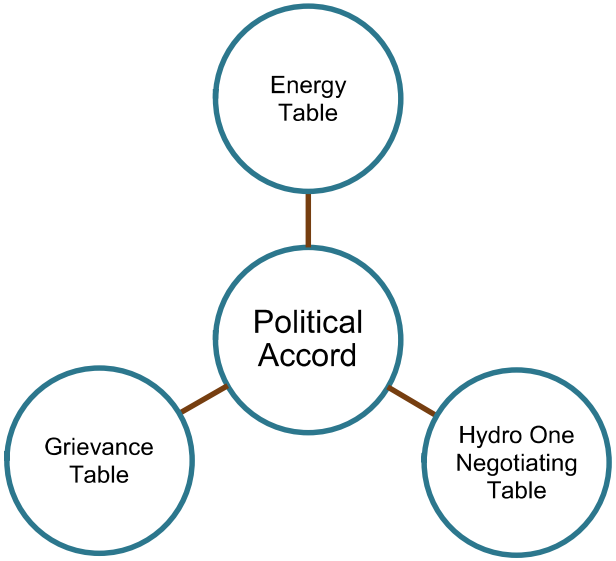
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

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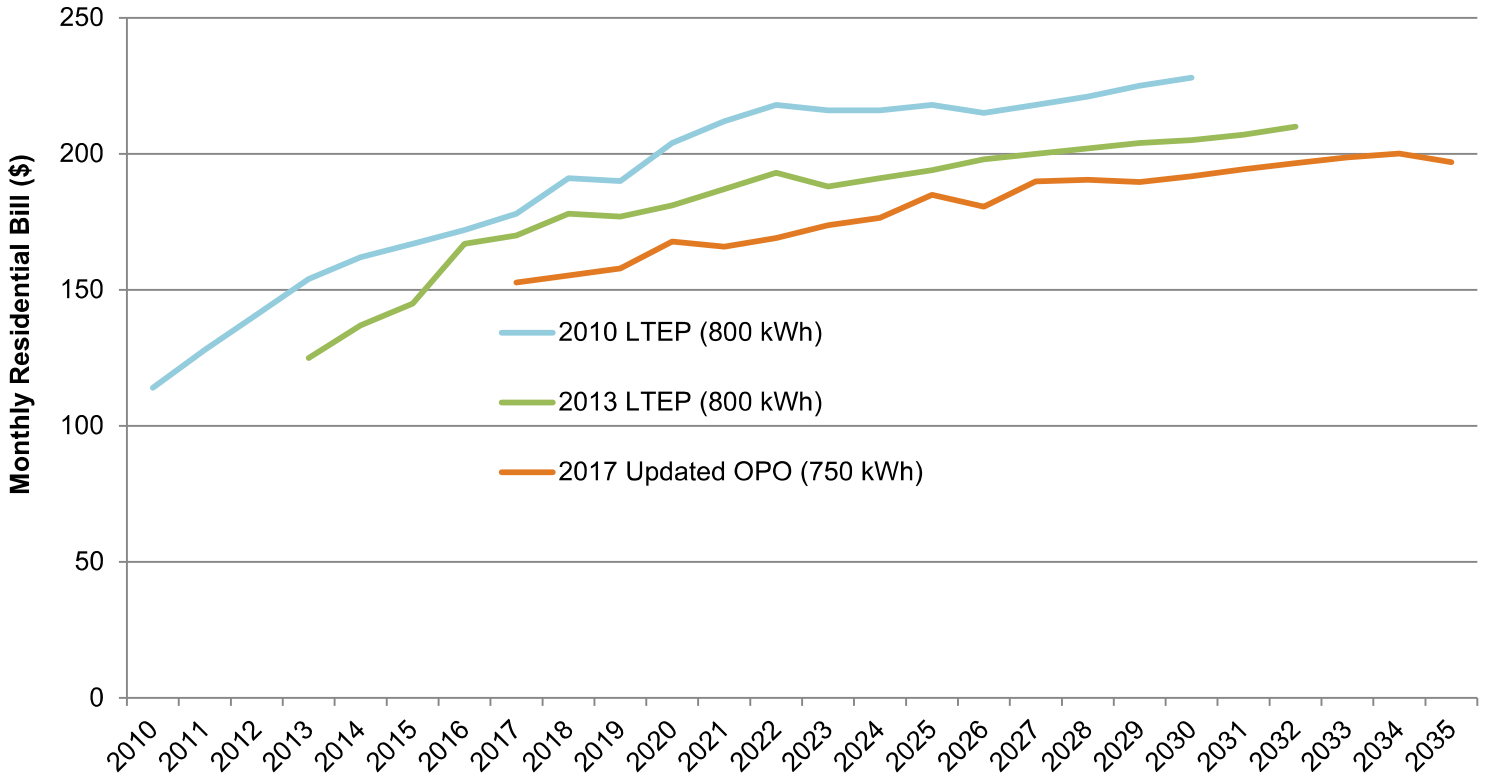
Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

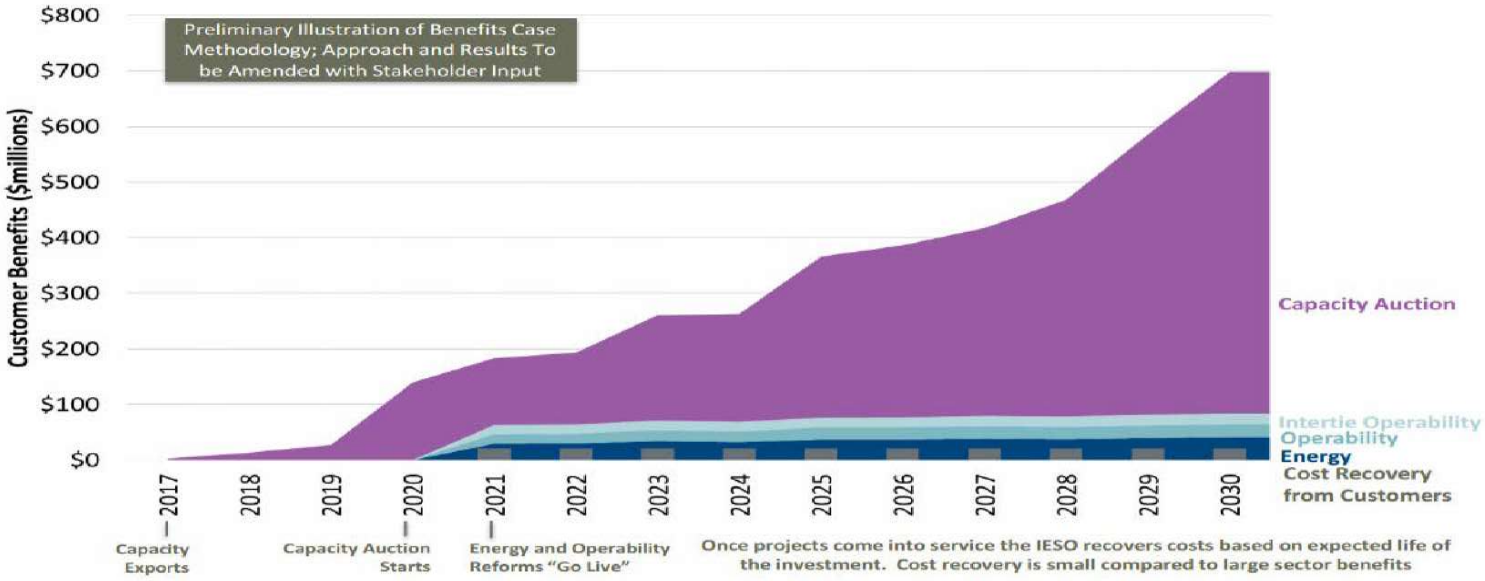
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

From:	Bruno Amara
To:	Adam Prokop; John Kim
Cc:	Francisco Chinchon; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 9:01:24 PM

Thanks Adam

One of the list of 14 in the white paper. This was one of the conditions required for OPG to consolidate the Trust

1. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    a. The Trust
    b. Any of OPG's investments in the Trust
    c. The most subordinated debt of the Trust

From: Adam Prokop
Sent: Wednesday, April 26, 2017 8:51 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

It's from the OPG white paper.

AP

From: John Kim
Sent: Wednesday, April 26, 2017 7:17:17 PM
To: Adam Prokop
Cc: Francisco Chinchon; Salman Qadir; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Could you remind me. The condition in the third from bottom bullet. Where did that come from?

On Apr 26, 2017, at 6:56 PM, Adam Prokop <Adam.Prokop@ofina.on.ca> wrote:

> Hello all,
>
> Here are some of my points

- Equity could affect OPG's GBE status if it is effectively seen as an interest-free loan; if the return from the structure does not justify an equity position. Otherwise, the Province could continue to inject equity into OPG in perpetuity for no reason. The fact that the Province is the sole shareholder strengthens this point. OPG could be seen as reliant on this funding for operations.
- The rating agencies would need to be brought into the discussion - would have to see what cash return from the structure would limit the impact on some ratios; the fact that the capital markets debt will be in a SPV means that portion is bankruptcy remote and may not factor into calculations.
- OPG is at currently at approximately 65% equity, 35% debt while the deemed structure is 45% equity and 55% debt. OPG does have the capacity to take on more debt within the deemed structure. Furthermore, if the structure is separate from the rate regulation process, the deemed structure is not as relevant.
- The related GBE status factor is if OPG can maintain operations and meet their obligations through revenues generated outside of the Province. As long as the debt issued from the Province to OPG is at the market rate, and the revenue from the structure is reasonably expected to cover expenses, the GBE status may not be threatened.
    - There is no minimal credit rating or minimum debt to equity ratio to retain GBE status.
- The markets could also take on more than 51% of the debt from the SPV (51% is minimum).
- There is also the consideration for if the Province issued debt directly to the SPV (i.e., buying securities from the SPV directly rather than going through OPG).
    - Nothing in the 14 conditions prevents this.
    - Need to confirm with OPG auditors.
- The relevant condition is that the Province cannot indirectly (i.e., through OPG) or directly (i.e., to the SPV) finance more than 44% of the structure, either through equity or debt.
- Preferred shares with cumulative dividends if not paid and over a 10 year term would likely get a 50% equity and 50% debt treatment from DBRS, which would lessen the pressure on the capital structure if Province finances OPG directly.
- There could also be a mix of debt and equity financing from the Province over time to OPG.

Overall, a discussion with the credit rating agencies and OPG auditors would probably help clarify options if this is feasible.

Kind regards,

Adam Prokop

From: Francisco Chinchon
Sent: Wednesday, April 26, 2017 6:08 PM
To: Salman Qadir
Cc: John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

How contributing equity to a company that retains a good credit rating could affect its GBE status?

On Apr 26, 2017, at 6:04 PM, Salman Qadir <Salman.Qadir@ofina.on.ca> wrote:

> My counter to that would be if the Province is doing equity vs debt on the basis you have mentioned, that could also simply put at risk the GBE status, no?
>
> I haven't seen the 14 conditions but I'll check as well.
>
> Sent from my iPhone
>
> On Apr 26, 2017, at 5:46 PM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:
>
> > I think the challenge starts once you cross the deemed capital structure or when OPG starts getting downgraded for carrying too much debt. If the loans provided by the Province are not something a prudent lender would agree to do you could potentially be putting at risk the GBE status. What you should do is compare the potential outcome of the different structures against the test that needs to be met to remain a GBE. You should check this on top of the 14 other points.
> >
> > ---
> >
> > **From:** John Kim

Sent: Wednesday, April 26, 2017 5:46 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Ok, could we take a look at the 14 conditions to double check?

From: Salman Qadir
Sent: Wednesday, April 26, 2017 5:40 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Hi John,

I think Adam and I had discussed this briefly. We were questioning why the Province could not issue debt to OPG instead of Equity (or even directly into the Trust). The only reason that came to mind was to effect OPG's credit rating (which TD says would be treated as "intermediate equity" for option 3) – don't think GBE status would be affected.

The OEFC already lends to OPG which hasn't seemed to effect its GBE status… not sure what I'm missing here..

Salman

From: John Kim
Sent: Wednesday, April 26, 2017 5:19 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman

Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

I don't follow Ken's bullet #1. Maybe I'm missing something due to having too many files on the go but is it true that if we have a loan to OPG, that the GBE treatment falls apart?

From: John Kim
Sent: Wednesday, April 26, 2017 4:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Any comments? I overlooked this email from Carlos.

John

From: Ken Kandeepan
Sent: Wednesday, April 26, 2017 4:20 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Carlos, and others

I believe the discussion with TDS will be scheduled for either Thursday of Friday and I am not available on both days so here are my comments.

- Page 3: Option#3 is not feasible since it is essentially a type of debt from the Province to OPG and may impact the latter's GBE status, which jeopardizes the entire arrangement.
- Options 2 and 4 are superior to 1 from the Province's perspective providing a greater assurance of dividends, which means less cash flow risk for the province.
- The last bullet on page 4 is a little confusing especially the phrase; "and the debt issued to OPG by the SPV/Trust". It's actually the other way around, OPG uses the cash flow from the equity injection to issue debt to the Trust.
- The cash flow from the equity injection is essentially cost free for OPG however, the Trust will generate interest income on 100% of its debt, as such when the trust is consolidated with OPG, the latter will show a net interest income. This income can be paid out as dividends to the Province and in essence defray the Province's interest payments on the debt incurred to fund the equity injection.

Thanks and as always happy to discuss.

Ken k

From: Carlos Yep
Sent: Tuesday, April 25, 2017 11:47 AM
To: James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Attached are some initial comments from TD.

We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]

Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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From:	Ken Kandeepan
To:	John Kim; Carlos Yep; James Devine; John Psinas; Mike Manning
Cc:	George Sakura; Bruno Amara; Francisco Chinchon
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 7:49:36 PM

Good question, the appendix to the MOE cabinet submission includes an opinion from E&Y where this point is very forcefully made. That is why the debt from the Province option is no longer on the table.

Thanks

Ken k

From: John Kim
Sent: Wednesday, April 26, 2017 7:29 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Hi Ken,

Thanks for these helpful comments. I do have a question on your first comment. I haven't been as close to the accounting discussion as you have been - why would providing debt from the Province to OPG, for this purpose, affect its status as a GBE, if the loan is provided at a market rate. I haven't gone through this deck carefully yet but wanted to clarify this point.

I do recognize that ultimately OPG would want to make a commercial decision so we are looking to be educated on various structures.

Happy to chat in the lock-up tomorrow.

John

From: Ken Kandeepan
Sent: Wednesday, April 26, 2017 4:20 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Carlos, and others

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- The last bullet on page 4 is a little confusing especially the phrase; "and the debt issued to OPG by the SPV/Trust". It's actually the other way around, OPG uses the cash flow from the equity injection to issue debt to the Trust.
- The cash flow from the equity injection is essentially cost free for OPG however, the Trust will generate interest income on 100% of its debt, as such when the trust is consolidated with OPG, the latter will show a net interest income. This income can be paid out as dividends to the Province and in essence defray the Province's interest payments on the debt incurred to fund the equity injection.

Thanks and as always happy to discuss.

Ken k

From: Carlos Yep
Sent: Tuesday, April 25, 2017 11:47 AM
To: James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Attached are some initial comments from TD.

We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]
Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>

Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

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From:	Bruno Amara
To:	Salman Qadir; John Kim; Adam Prokop
Cc:	Shajee Kathirgamanathan; Gavin He; Francisco Chinchon
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 5:51:31 PM

That was the reason given on the original March 1st submission (slide 21 "severe impact on OPG's credit rating")

From: Salman Qadir
Sent: Wednesday, April 26, 2017 5:40 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
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Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
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To: Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
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Thanks and as always happy to discuss.

Ken k

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From:	Francisco Chinchon
To:	John Kim; Salman Qadir; Bruno Amara; Adam Prokop
Cc:	Shajee Kathirgamanathan; Gavin He
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 5:46:58 PM

I think the challenge starts once you cross the deemed capital structure or when OPG starts getting downgraded for carrying too much debt. If the loans provided by the Province are not something a prudent lender would agree to do you could potentially be putting at risk the GBE status. What you should do is compare the potential outcome of the different structures against the test that needs to be met to remain a GBE. You should check this on top of the 14 other points.

From: John Kim
Sent: Wednesday, April 26, 2017 5:46 PM
To: Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Ok, could we take a look at the 14 conditions to double check?

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To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
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To:	John Kim; Bruno Amara; Adam Prokop
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From: Ken Kandeepan
To: Carlos Yep; James Devine; John Psinas; Mike Manning
Cc: George Sakura; John Kim
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date: Wednesday, April 26, 2017 4:19:38 PM

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From:	Ronald Kwan
To:	John Kim
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 10:25:16 PM
Attachments:	Global Adjustment Deferral_White Paper_OPG r1a.pdf

Hi John,

Sorry, I was thinking of this document, but I see it is an OPG one, not E&Y.

Perhaps we have the E&Y one too, or maybe Ken has a copy that's more handy and can provide it.

Ron

From: Ronald Kwan
Sent: April-26-17 8:40 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Hi John,

If you are referring to the March CabSub, then, yes, and I believe you have a copy and its saved in the folders.

You'll also recall the OPG 14 points document to get the accounting treatment targeted, which was informed by its earlier discussions with EY.

You'll recall that OPG had to be able to maintain its GBE status, which includes have an appropriate capital structure (for which 100% debt financing would be problematic) and the SPV show that it was financeable independent of the Province.

I think this was all in the BNs you guys put together at the time too. Isn't that right?

Is there a nuance I'm missing, as I did not read the full email chain that you forwarded.

Can you send me the TD analysis.

Thanks,
Ron

On Apr 26, 2017, at 8:08 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> Have you seen the appendix to the CabSub?
>
> Thanks,
>
> John
>
> ---
>
> **From:** Ken Kandeepan

Sent: Wednesday, April 26, 2017 7:50 PM
To: John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
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Good question, the appendix to the MOE cabinet submission includes an opinion from E&Y where this point is very forcefully made. That is why the debt from the Province option is no longer on the table.

Thanks

Ken k

From: John Kim
Sent: Wednesday, April 26, 2017 7:29 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
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Hi Ken,

Thanks for these helpful comments. I do have a question on your first comment. I haven't been as close to the accounting discussion as you have been - why would providing debt from the Province to OPG, for this purpose, affect its status as a GBE, if the loan is provided at a market rate. I haven't gone through this deck carefully yet but wanted to clarify this point.

I do recognize that ultimately OPG would want to make a commercial decision so we are looking to be educated on various structures.

Happy to chat in the lock-up tomorrow.

John

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From: Carlos Yep
Sent: Tuesday, April 25, 2017 11:47 AM
To: James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Attached are some initial comments from TD.

We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]
Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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February 27, 2017

Mr. Serge Imbrogno
Deputy Minister,
Ministry of Energy
4th Floor, Hearst Block
900 Bay Street
Toronto, Ontario
M7A 2E1

Dear Deputy:

Below is a summary of OPG's preliminary views on the implementation of the Province's proposed Global Adjustment Smoothing Account and financing structure. These views are contingent on the proposed terms and conditions that were sent to the Ministry of Energy on February 21, 2017.

Understanding that the finalization of the legal terms, the Trust indentures, financing structure and other detailed terms will take several months and will involve collaboration between legal counsel, input from capital markets, parties involved and other stakeholders, this letter is intended to provide the guideline and framework which could form the foundation of the plan.

Please do not hesitate to contact me if you have any questions regarding this summary.

Sincerely,

Mr. Ken Hartwick
Chief Financial Officer and Senior Vice President, Finance
Ontario Power Generation
W: 416-592-6985
C: 647-544-6985
ken.hartwick@ opg.com

cc. Jeff Lyash, President and CEO, OPG

Background:

The Province has indicated that it will take steps to reduce electricity bills in the near term. It has identified reductions in the Global Adjustment Charge (GAC) charged to electricity customers as a means to achieve its policy goals. The Province is proposing to temporarily reduce the amount of the GAC charged to electricity customers (primarily RPP-eligible customers). The exact quantum and duration of the program is still not known but based on discussions with the Province GAC charges of approximately $2-5B per year for the next 5-10 years would be deferred and collected over future periods commencing after the deferral period. A combination of senior debt and subordinated debt (mainly sourced by additional equity from the shareholder) would be issued to fund the amount deferred. The financing cost of the debt and other costs of running the program would form part of the amounts recovered from customers over the term of the program.

The Province has requested that OPG administer the GAC deferral, because of OPG's participation in the market, regulatory knowledge and the potential ability to consolidate the activity and accounting with OPG. Given the significant amount of financing required for the GAC deferral, OPG has developed a financing structure (depicted below) to:

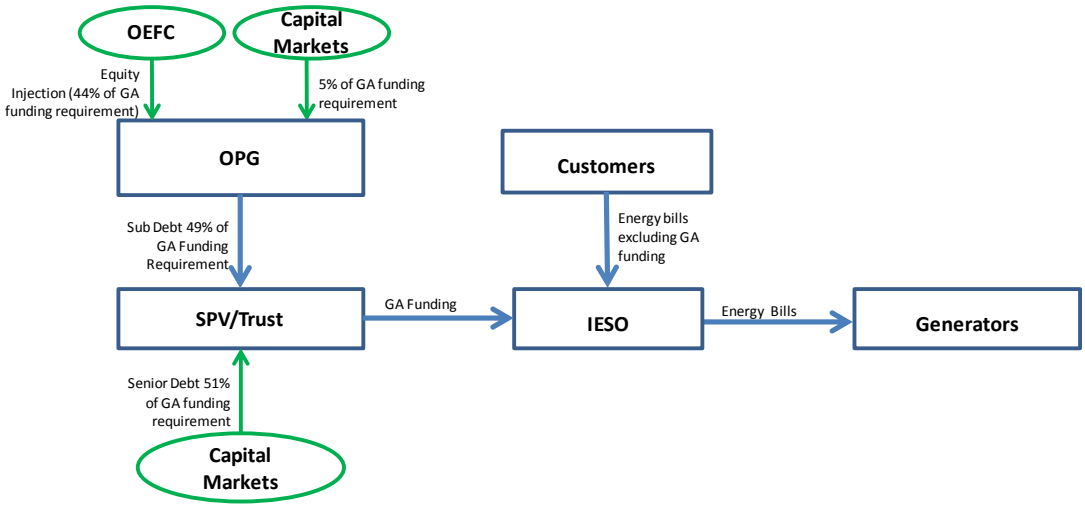
- restrict the risk to OPG;

- maximize the cost-effectiveness of the Trust or the Special Purpose Vehicle ("SPV") financing vehicle; and
- allow for consolidation into OPG financial statements.

The success of this structure is dependent on achieving a number of objectives which are reviewed in the following sections:

A. Ability to Recognize an Asset and Record Revenue
B. Ability to Consolidate the SPV into OPG
C. Ability to Finance
D. External Assessment
E. Risk Summary

All of the percentages shown in the graphic below are indicative and will be highly dependent on the legislation that the Province will enact:



Process:

The IESO will effectively sell the 'right to collect' deferred future revenue from ratepayers (GA Recovery Right asset) to the SPV in return for cash proceeds. In order for the SPV to purchase this asset the SPV will obtain the financing from two key sources: 51% directly from capital markets and 49% as subordinated debt from OPG. OPG will obtain 44% of this financing as an equity injection from the Province and 5% from capital markets.

A. Ability to Recognize an Asset and Record Revenue

Accounting Requirements under International Financial Reporting Standards (IFRS)

1) It is our understanding that the IESO and KPMG have concluded that the sale of this 'right to collect' future revenue (or regulatory asset) is not a financing transaction and will not be recorded as a financial liability. Based on that conclusion, the right to collect will be accounted for as an intangible asset in the SPV.

2) In order to the SPV to record this right as an intangible asset, the right must meet the following conditions:
   - The intangible asset must be separable and arise from a contractual or legal right (i.e. mandated by the Legislation and SPV Indenture Agreement).
   - The SPV must have the control and power to obtain future economic benefits from the intangible asset.
   - The SPV must be able to demonstrate that the intangible asset is purchased at fair value.

3) In order for the SPV to recognize appropriate revenue to offset any ongoing costs, the Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis. This may result in additional amounts to be deferred to achieve the desired customer impact. Payment of revenue to the SPV is also important to service the interest expenses of the debt.

B. Ability to Consolidate the SPV into OPG under IFRS

OPG 'Control' of the SPV - Accounting Requirements

1) In order to meet the accounting definition of 'control', accounting guidance must be considered. There are no bright lines to determine whether OPG has exposure, or rights, to variable returns from its involvement with the SPV, or whether it has the ability to affect the returns of the SPV through its power over the SPV. Rather, all facts and circumstances are considered when assessing whether an entity has control over another entity. Based on the relevant accounting guidance under IFRS, OPG has proposed terms necessary to demonstrate that OPG has control over the SPV. OPG's external auditors, Ernst & Young, has provided their concurrence that based on the information provided to them to date that the following conditions should permit consolidation of the SPV by OPG.

Directive:

1. The SPV must be undertaken by OPG as a business initiative on its merits. A Shareholder Directive is to be limited to direct OPG to investigate the option of establishing a SPV vehicle to administer, finance and operate the Global Adjustment plan. The control, risk and rewards of that SPV will determine its consolidation into OPG as a business enterprise.

SPV:

2. The SPV should not operate in a predetermined way such that OPG does not have decision-making authority over the SPV's ongoing activities after its formation (i.e. should not operate on 'autopilot').
3. OPG must have the ability to appoint and remove the Trustee (or Board of Trustees), with no veto right by the Province. No party shall have the ability to remove OPG from its role and authority in the SPV.
4. The Province cannot have the right to veto OPG's decisions about the relevant activities of the SPV. OPG must have the power over the relevant activities of the SPV and be compensated. The relevant activities of the SPV include (but are not limited to) the evaluation and decisions on financing alternatives, duration, and the strategy to minimize financing costs. OPG must have the power to establish operating and capital budgets of the SPV.
5. OPG must have the power to determine or change operating and financing policies of the SPV, which will affect the variability of risks and returns.
6. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    - The SPV
    - Any of OPG's investments in the most subordinated debt of the Trust
7. OPG must own greater than 50% of the most subordinated debt and targeted to be no less than 5%[1] of the total debt of the SPV. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources. A quantitative analysis should be performed at a later date to corroborate the appropriateness of the 5% threshold to support that the 5% subordinated debt investment is sufficient to absorb most of the expected variability in the SPV.
8. OPG must have the ability to earn variable returns by exercising its authority, which shall be accomplished as follows:

[1] While the rest of the letter refers to a 10% investment in the most junior subordinated debt with OPG owning 5%, it should be noted that OPG should own more than 50% of the most subordinate debt. For simplicity, the degree to which OPG's ownership beyond 50% is not shown in this letter.

a. The cash flow from the restructured asset shall include interest determined based on a relevant benchmark that is appropriate relative to the restructured asset, plus an appropriate margin consistent with the relevant market and other risks
b. OPG shall have the authority to determine the financing strategy, which will vary the financing costs with the objective of enabling the SPV to achieve a more favourable return compared to the return from the restructured asset
c. The SPV shall establish classes of liabilities (senior, subordinated and the most subordinated). The classes would allow the SPV to delineate financing of lower risk investment and investment that would bear higher residual risk. The delineation would limit OPG's self-funded investment to a reasonable level in order to allow OPG to remain a self-sustaining entity.
d. OPG shall, through its ownership of the most subordinated liability, be able to capture and retain the pricing difference between cost of financing and benchmark for interest on the restructured asset, or any residual risk of restructured asset. The targeted return of the subordinated liability should be reflective of the underlying risks and compensate holders for active management that would be required.
e. OPG should participate in the detailed design of the above and the SPV documentation to ensure that it has substantive power and variability, which will allow OPG's Board of Directors to evaluate the opportunity as a business initiative instead of through a shareholder directive.

Nothwithstanding the above, under certain Defined Forced Majeure for emergency events (e.g. unlikely credit market event or disruption where it is not possible to borrow from the market at a reasonable rate), the OEFC may provide bridge financing beyond the designated percentage for a defined period. The relevant terms should ensure that this temporary measure does not detract from the rights of OPG to direct all of the relevant activities of the SPV. Additionally, OPG should not be protected from risk of loss by the OEFC with respect to its subordinated investment, nor should it lose its right to derive the residual returns should such bridge financing be required.

Legislation

9. The Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis, so that the SPV is able to recognize appropriate revenue to offset any ongoing costs.
10. The Legislation must dictate the manner in which the restructured asset would be determined, collected, and the period of collection, so that the determination of the restructured asset will not be subject to the Province's decisions on an ongoing basis, but determined based on a formula. Alternatively, the Legislation may allow for an adjustment to the pre-determined deferral formula based on specific parameters that would limit the adjustment to the restructured asset. Adjustments beyond the specific parameters would require approval by the Board of Trustees.
11. The Legislation must be written to avoid legal or constitutional challenges and be irrevocable to reduce the cost of borrowing and with a specific formula which determines the deferral amount. As irrevocability would be difficult under Canadian law one mitigation would be to provide a Provincial guarantee which only applies with cancellation or amendment of the legislation.
12. The spirit of the above terms should be reflected in the SPV Indenture Agreement as well as Legislation, wherever possible.

2) The Trust is expected to be financed as follows:
   - 51% senior secured debt from external markets
   - 39% senior subordinated debt from OPG (via Province equity injection into OPG)

- 10% junior subordinated debt from OPG (5% from external markets and 5% from Province equity injection into OPG).

When assessing control, an investor shall consider the nature of its relationship with other parties and whether those parties are acting on the investor's behalf (i.e. they are 'de facto agents'). If OPG is assessed to be a 'de facto agent' of the Province, it will compromise the ability for OPG to consolidate the Trust. The split above is to meet the following conditions to ensure that OPG is not considered a 'de facto agent' of the Province:

- The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
  - The Trust
  - Any of OPG's investments in the most subordinated debt of the Trust
- OPG must own greater than 50% of the most subordinated debt and targeted to own no less than 5% of the total debt of the Trust. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources.

3) The Province will need to conclude on whether OPG still meets the definition of a Government Business Enterprise as defined under Public Sector Accounting Board standards in order to obtain the preferred consolidation treatment after the transaction. We also recommend that the Province to undertake the analysis deemed necessary to confirm the accounting treatment in its consolidated Public Accounts, including if the recognition of the intangible asset would result in an offsetting liability in the Public Accounts.

C. Ability to Finance

Property Right or Right to Collect
Legislative Requirements for Financing
The GA Recovery Right must be structured to encompass the following elements:

- Right to recover from and bill Ontario electricity customers for (1) the principal amount of GA that is being deferred, (2) all interest and other financing costs incurred in respect of the deferral of the GA, (3) all fees, expenses and other administrative costs associated with such financing;
- Repayment/amortization schedule as agreed by the IESO and any purchaser of such GA Recovery Right (or pursuant to a pre-defined schedule/formula that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis);
- Repayment/amortization schedule must include a true up mechanism to ensure all costs associated with the deferral can be recovered from customers;
- IESO may dispose of the GA Recovery Right, provided that any such disposition shall be a true sale and absolute transfer to the purchaser of the IESO's right, title and interest in and to the GA Recovery Right;
- Purchaser will have the right to require the IESO (or any successor) to collect the principal amount of GA Recovery Right, together with interest, financing and administration costs, on the agreed repayment/amortization schedule;
- Right must be irrevocable and, if amended by future governments, debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment;
- GA Recovery Right will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity; and
- Make certain amendments to the Electricity Act to allow OPG to implement the SPV financing structure (e.g. allowing OPG to create subsidiaries and holding companies, and to have a beneficial interest in the SPV, etc). This would provide flexibility to accommodate possible variations to the financing structure that may be desirable over time.

Detailed legislative requirements are specified in the attachments as follows:

Attachment 1 Legislative requirements to allow deferral of global adjustment amounts to be financeable

Attachment 2 Statutory amendments

The proposed financing structure for the SPV is:

	Risk Profile	Source	% of Total Funding Requirements
Tranche A Senior Debt	The least risky	Capital Markets	51%
Tranche B Sub Debt	In between A&C	OPG via OEFC	39%
Tranche C Sub Debt)	The most risky	OPG via OEFC	5%
		OPG via Capital Markets	5%

SPV structure is used to accomplish the following:

- SPV holds right to charge customers for the benefit of debt holders;
- Allows the financing vehicle to be ring-fenced from OPG as an SPV structure is set up as generally single purpose entities with no other operations that could add risk to the SPV, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings;
- Enables SPV to potentially get a higher credit rating than OPG;
- Supports consolidation with OPG provided accounting requirements are satisfied;

This approach supports a number of objectives of the GA Recovery Right:

- 51% external senior debt supports separation of the SPV from the Province
- 5% junior subordinated debt establishes OPG's "at risk" equity which supports separation of the SPV from the Province
- Subordinated debt provides flexibility to the financing structure and additional credit support to external debt holders
- Subordinated debt sourced from OPG (mainly funded by equity injection from the Province) minimizes impact on OPG credit metrics reducing risk of an OPG rating downgrade that could result in the SPV being consolidated directly with the Province as the SPV would be considered an arm of the Province.

Recent transactions used as precedents are:

Duke Energy Florida Project Finance LLC
June 2016
5 series of bonds totalling USD$1.3B
Weighted average life from 2 to 19 years with interest rates from 1.2% to 3.1%
Credit rating AAA

Utility Debt Securitization Authority
Sponsored by Long Island Power Authority
March 2016
Amount issued USD$0.6B
Weighted average life of 12 years and weighted average yield of 2.7%

August 2016
Amount issued USD$0.5B
Weighted average life of 7 years and weighted average yield of 2.0%

Credit rating AAA

Cumulative outstanding (including previous issuances): USD$4.2B

D. External Assessment

Shakerhill Partners, an external advisor, identified the following items in an assessment of the structure and financeability of the structure:

- The structure is financeable however there are a number of significant risks to the structure:
  - Canadian and Ontario law does not provide the same protection to property right as exists in the US federal and state constitutions to limit the ability of governments to adversely impair contracts to the detriment of the holder;
  - Legislation could mitigate some of the risks – deferred recovery asset to be "uncapped", regular semi-annual true up to ensure recovery, Province provides sufficient committed liquidity to the IESO so that temporary shortfall in recovery does not affect payments to SPV, term of the deferral recovery substantially exceeds the longest maturity of debt of the SPV and that true-up mechanism take account of potential for currency, interest rate and duration mis-match between the debt of the SPV and the recovery mechanism;
  - Size of the program may be too large for Canadian securitization market requiring access to the US securitization market;
- Final maturity of debt should not exceed 30 years from inception of the program
- True up mechanism should be designed such that the forecast of recovery is less than 10% of the customer bill under downside scenarios to limit growth of the deferral balance as a higher portion of the customer bill increases the political risk to debt holders which could result in a lower credit rating and potential impact on financeability
- Securitized debt products are specialized and price at a premium to other fixed rate instruments however a successful program supported by a strong credit rating this premium could shrink over time to a minor spread over Provincial debt
- OPG's credit rating should be maintained provided sufficient equity is injected to maintain credit metrics
- While the structure is not expected to impact the Province there are risks that the program could negatively impact the rating agencies view of the Province's financial management.

E. Risk Summary

i. Consolidation

- Elements of the proposed structure were established to support consolidation of the SPV into OPG. These items may not be sufficient to establish OPG as risk owner of the SPV and the SPV may need to be consolidated directly with the Province.

ii. Financeability

- The legislation establishing the structure and the property right for recovering the financing and associated costs may not be adequate for financing purposes resulting in more expensive financing or an inability to obtain the required external financing.

iii. Cost of Financing

- Future governments may enact legislation that changes the right of the SPV to recover amounts from customers.
- The right to recover amounts from future customers must be irrevocable and subject to full recovery from the government in the event that future governments reduce or eliminate the recovery. A legal structure that is weaker than the precedent US transactions increases the risk to debt holders and the cost of financing.
- Interest rates on bonds in the securitization market are higher than equivalent rated bonds. Rate for a AAA securitization credit is about 50 bps higher than GOC (rated AAA) for a 5 year term. This difference is attributable to the specialized structure of the bond, smaller investor pool for this bond, smaller size of the market and higher perceived risks of the bond.
- Any regulator involvement must not be seen to modify any terms of debt issued or the property right securing the debt as this would increase risk to debt holders.

- It may not be possible to issue debt to match the terms of the deferred asset so shorter term debt would be used which raises risk to re-finance the maturing debt as the market may no longer be interested in this product. As well, underlying reference interest rates may be higher and the market may require a higher spread to invest in this product.
- With the GA Recovery Right program continuing for 10 years, debt issued over this period is subject to changes in both the underlying reference interest rates and appetite of the market for this product.

iv. OPG Credit Rating

- Minimizing the impact of significant additional debt on OPG's credit rating is dependent on higher EBITDA arising from earned income on the GA Recovery Right in excess of external debt. Ability of the SPV to record revenue reflecting the growth in asset value.
- Potential OPG credit rating downgrade if legislative structure is not adequate to support long term recoverability, inability to record revenue from growth in asset value or agencies view equity injection as debt.
- OPG credit rating downgrade could result in loss of GBE status or result in SPV being consolidated directly with the Province.

Attachment 1

LEGISLATIVE REQUIREMENTS TO ALLOW DEFERRAL OF GLOBAL ADJUSTMENT AMOUNTS TO BE FINANCEABLE

The IESO currently has a right to collect GA monthly from ratepayers through provisions in the *Electricity Act, 1998*. It is proposed that collection of a certain portion of the monthly GA be deferred for collection in the future, and that the right to recover the deferred GA from ratepayers be used as a basis for structured financing/securitization.

The current proposal is for a trust to be created as a financing vehicle (the "**Trust**") in connection the deferred GA. The Trust will finance the deferral of the GA by purchasing the right to recover such deferred GA from the IESO for the principal amount of the GA being deferred. For example, if the amount of GA that is being deferred is $200 million in a given month, the Trust will purchase from the IESO the right to future recovery of the deferred GA and the associated financing costs (including interest and transaction costs) for $200 million in cash.

The Trust is expected to finance these purchases from the IESO through a combination of senior secured financing raised in the capital markets and subordinated financing from OPG (the funding for which will mostly be from equity injections from the OEFC/Province).

For accounting purposes, OPG will need to have the ability to direct the activities of the Trust, through a services agreement and/or through the Trust's constating document.

Based on securitized financing raised by utilities in the US (backed by utility cost recovery orders) and the current regulatory framework in Ontario, the legislation in Ontario would need to be amended to provide the following, at a minimum:

1. The IESO will be empowered to create an asset (the "**Regulatory Asset**") consisting of all right, title and interest in and to:

   (a) right to recover from and bill Ontario electricity ratepayers for:

   (i) the principal amount of GA that is being deferred for collection;
   (ii) all interest and other financing costs incurred in respect of the deferral of the GA (whether through senior debt raised in the public markets or subordinated debt raised from OPG or others); and
   (iii) (subject to the comments in paragraph 5 below in respect of OPG's internal administrative costs only) all fees, expenses and other administrative costs associated with such financing, including up-front and ongoing financing costs and any indemnity payments;

all on such repayment/amortization schedule as agreed by the IESO and any purchaser of such right (or pursuant to a pre-defined schedule/formula in the legislation that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis); and

(b) all revenues, collections, claims, rights to payments, money or proceeds arising from the rights and interests set out in paragraph (a) above, regardless of whether such revenues, collections, claims, rights to payments, money or proceeds are imposed, billed, received, collected or maintained together with or commingled with other revenues, collections, rights to payments, payments, money or proceeds.

2. The IESO may dispose of the Regulatory Assets created from time to time on such terms as the IESO determines in accordance with the terms of directives to be issued to the IESO from time to time by the Minister, provided that any such disposition shall be a true sale and absolute transfer of the IESO's right, title and interest in and to a Regulatory Asset to the purchaser of the Regulatory Asset.

3. The Regulatory Assets will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity thereof.

4. The legislation will need to recognize the Regulatory Assets as amounts that may be recovered by the IESO (e.g. it could be designated as a "GA Deferral" and would be included in the amounts collectible by the IESO through the GA collection mechanism, and would include interest and financing costs).

5. The purchaser of the Regulatory Asset will have the right to require the IESO (or any successor) to collect the principal amount of GA deferred, together with interest, financing and administration costs, on the agreed repayment/amortization schedule. **[NTD: In the LIPA securitization rate order, if the entity that is authorized to collect rates to service the bonds ends up defaulting, there is the ability to request a court to order "sequestration" and payments of amounts owing to the owner of the Regulatory Asset. Consider whether to include a similar right here. Alternatively, consider whether a security interest over the moneys collected by the IESO could be provided to the purchaser.]**

OEB would be provided with oversight over the internal administrative costs collected by the Financing Trust. This could be accomplished by (a) providing the purchaser of the Regulatory Asset with the right to require

the IESO or a successor to collect only the principal amount of GA together with interest and financing costs and third party fees and expenses, and (b) requiring the IESO to collect amounts through the global adjustment and make payments to the purchaser of the Regulatory Asset with respect to the internal administrative costs incurred by the purchaser in connection with the purchase and management of the Regulatory Asset and the Financing Trust, in accordance with the order of the OEB then in effect. Under this mechanism, the OEB would be required to review the purchaser's internal administrative costs through a streamlined process and issue such orders in accordance with rules to be prescribed under a new regulation under the OEB Act, which would clearly limit the OEB's scope of review and could establish the basis for the purchaser to receive an appropriate fee for its services.

6. In the event that any action is taken or permitted by the Province or any regulatory authority that limits, alters, or impairs the value of a Regulatory Asset or reduces the ability of the IESO or the purchaser of the Regulatory Asset to collect or recover the costs associated therewith, the owner of the Regulatory Asset and the holders of any bonds or other securities issued to finance the purchase of the Regulatory Asset, will have a right of action against the Province for any damages suffered as a result of such amendment.

Attachment 2

STATUTORY AMENDMENTS

The following is preliminary and is based on our current understanding of the proposed structure and objectives. For example, we have assumed that the structure will not entail the insertion of a new Holdco between OPG and the Province. As these aspects are refined, some of the suggested amendments described below may not be needed and other aspects that we are not aware of may need to be considered. Accordingly, these suggested amendments are provided for discussion purposes and are subject to change. We would welcome the opportunity to work with OPG and the Ministry on refining the scope and substance of required legislative and regulatory amendments.

A. Amendments to Implement Structure

Certain *Electricity Act, 1998* amendments would be needed to implement the anticipated structure (which we understand, as noted above, would not include a Holdco), as follows:

- **Section 53.1(1):** Amend to permit owning and operating generation facilities through subsidiaries (not only directly through OPG). In addition, amend to permit OPG to administer, manage, loan moneys to and have a beneficial interest in, if applicable, Financing Trust.

- **Section 53.2:** Amend to permit the Minister to acquire, hold, dispose of or otherwise deal with securities or debt obligations of, or any other interest in, OPG or any subsidiaries. This is to accommodate possible variations to the financing structure that may be desirable over time.

- **Section 53.■ (new):** New statutory section to permit the Minister to enter into arrangements relating to an exercise of powers under 53.2.

- **Section 53.■ (new)**: New statutory section providing that creditors of Financing Trust have no recourse to the assets of OPG or any of its subsidiaries (other than Financing Trust, if applicable). In addition, consideration should be given as to whether the Act should be amended so that the Financing Trust cannot be wound up or liquidated.

B. Miscellaneous Corporate Items to Address

- **OPG Articles:** Amend the OPG's articles to remove the private company restrictions.

- **MOA with Province:** Consider whether any amendments to OPG's MOA with the Province are required to contemplate the Financing Trust.

C. Amendments Under Electricity Act to Implement GA Smoothing

Based on our understanding that the global adjustment smoothing mechanism is intended to benefit residential and small business customers only and that the Minister will be responsible for determining how much global adjustment smoothing is to be applied in a given month, if any, amendments to the *Electricity Act*, *1998* and Ontario Regulation 429/04 (Adjustments Under Section 25.33 of the Act) would be needed to implement the mechanism, as follows:

(i) Electricity Act:

- **Section ■ (New):** Establish a new power for the Minister to make directives to the IESO in relation to the global adjustment smoothing mechanism and, particularly, for purposes of establishing global adjustment smoothing amounts from time to time (expected to be monthly). To the extent possible, the directive power should be drafted so as to limit the ability for a future Minister to require the IESO to do anything that would materially and adversely affect the Financing Trust or its lenders. **[NTD: While our understanding is that the Minister would direct this, we note from other materials we have seen that OPG may instead be recommending a formula approach. It is not clear what the formula would look like, where it would be set out or how it would be applied and by whom]**

- **Paragraph 25.33(1):** This section says that IESO shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of market participants reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require IESO to ensure that, over time, payments by prescribed classes of market participants also reflect amounts paid to Financing Trust. **[NTD: Not certain this is needed if only to benefit residential and small business consumers, who are not market participants. May be needed in reference to payments from distributors and retailers]**

- **Paragraph 25.33(2):** This section says that distributors and retailers shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of consumers reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require distributors and retailers to ensure that, over time, payments by prescribed classes of consumers also reflect amounts paid to Financing Trust.

- **Note**: As described below, the regulation will need to include new requirements for the IESO to record the global adjustment smoothing amounts in one or more variance accounts and to use those amounts to offset amounts otherwise recorded in the variance accounts under Section 25.33(3) of the Act. For context, we note:

    - Section 25.33(3) says that adjustments under (1) or (2) relating to electricity consumed by consumers whose rates are determined by

the OEB under s. 79.16 of the OEB Act (i.e. RPP Customers) shall instead be made in accordance with the regulations to one or more variance accounts established and maintained by the IESO.

- Section 25.33(4) says IESO, distributors and retailers shall make and receive such payments, set-offs and credits as may be required or permitted by the regulations with respect to consumers described in (3), i.e. RPP Customers.

- Section 25.33(5) says that IESO shall establish and maintain such variance accounts as may be needed to record all amounts payable or receivable by it under 25.33.

(ii) O. Reg. 429/04 (Adjustments Under Section 25.33 of the Act):

- **Section 1(1):** Consider adding definitions for "Financing Trust" and "global adjustment smoothing amount" or such other terms as may be preferred.

- **Section 1.2(1) (New):** Add section providing that, for the purposes of this Regulation, the global adjustment smoothing amount for a month is the amount determined by the IESO in accordance with a directive from the Minister under section ■ of the Electricity Act in respect of the month. **[NTD: See above note re use of Minister directives]**

- **Section 1.2(2) (New):** Consider adding a section providing that the IESO shall publish the global adjustment smoothing amount for a month by no later than the 10th business day of the following month [to align with general publication requirements for global adjustment under s. 1.1(2)].

- **Section 10(1):** Amend formula for calculating Class B GA rate by subtracting the global adjustment smoothing amount for a month from "M", which is the total amount of the global adjustment for the month. The global adjustment smoothing amount could be designated as "X", such that the formula would be (M-X-N)/(P-Q). Define "X" as the global adjustment smoothing amount for the month as determined by the IESO in accordance with the Minister's directive under section ■ of the Electricity Act for the month. **[NTD: See above note re use of Minister directives]**

- **Section 10.1 (New):** Add new section to deal with adjustments under subsection 25.33(3) of the Act, i.e. in respect of RPP consumers. This section should require the IESO to establish, within the variance account(s) it maintains pursuant to subsection 25.33(3) of the Act, one or more subaccounts in which it shall record the global adjustment smoothing amounts applicable to the classes of consumers described in subsection 25.33(3) of the Act. This section must also specify that the IESO shall apply the amounts recorded in the subaccounts against the balances in the variance accounts for purposes of section 79.16(3) of the OEB Act.

  - **Note:** This is a key aspect because, when the OEB determines RPP rates, it must take into account the balances in the variance accounts established by the IESO under s. 25.33 of the Electricity Act and make adjustments with a view to eliminating the balances within 12 months. This proposed new section 10.1 causes the IESO to reduce (in the near term) the variance account balances by the global adjustment smoothing amounts, as provided by Financing Trust, thereby enabling the OEB to determine RPP rates that, despite being lower for RPP consumers in the near term, still eliminate the relevant variance account balances within 12 months.

- **Paragraph 11(2)2.ii:** Amend the formula for calculating the allocation of global adjustment for a month to a licensed distributor that is a market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x (R+S-T)]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 11(2)3:** Amend the formula for calculating the allocation of global adjustment for a month to each Class B market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x U]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 16(7)4:** Consider amending the description of "Global Adjustment" that is required to be included on certain invoices so as to inform consumers that their portion of the global adjustment for the month (i) may have been reduced by the application of a global adjustment smoothing amount from the Financing Trust, or (ii) may include amounts payable to the Financing Trust in respect of global adjustment smoothing amounts previously applied.

- **Section 20(1):** This section establishes an obligation for the Ontario Electricity Financial Corporation and every licensed distributor that is a market participant to give the IESO such information as the IESO may require for the purposes of the Regulation in the form specified by the IESO and before the expiry of the period specified by the IESO. Consider amending to extend this obligation to the Financing Trust.

- **Section 20(6):** This section provides that on request by the OEB, the IESO, a licensed distributor, an embedded generator, a retailer or the OEFC shall give the OEB such information relating to this Regulation as the OEB may require, in the form and within the period specified by the OEB. Consider amending to extend this obligation to the Financing Trust.

D. Amendments Under OEB Act to Implement Cost Recovery for Financing Trust

Amendments to the *Ontario Energy Board Act*, including amendments to O. Reg. 95/05 (Classes of Consumers and Determination of Rates) and the introduction of a new regulation, would be needed to implement a cost recovery process for the Financing Trust in relation to the global adjustment smoothing mechanism, potentially with limited OEB oversight, as follows:

(i) Ontario Energy Board Act:

- **Section 78(3.3):** This provision establishes an obligation for the OEB, when determining rates for the retailing of electricity, to take into account balances in variance accounts established under section 25.33 of the Electricity Act and to make adjustments "with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct." Consider whether any amendments are needed, and confirm this works with the framework being proposed.

- **Section 78.7 (New):** We understand that the Province may want the OEB to have an oversight role. One possible approach would be to establish a new statutory section establishing that the IESO shall make payments to the Financing Trust with respect to the internal administrative costs incurred by the Financing Trust in connection with the purchase and management of the Regulatory Asset and the Financing Trust. Such payments by the IESO would need to be made in accordance with the order of the OEB then in effect, which orders shall be made by the OEB in accordance with rules prescribed under a new regulation.

    - The new regulation would need to be clear that the OEB does not have jurisdiction to consider the principal amount or any interest, financing costs, third party fees or expenses. Rather, OEB's role would be limited to considering the internal administrative costs of the Financing Trust and ensuring the Financing Trust receives an appropriate fee for its services, all of which would be recovered by the Financing Trust from the IESO, which would collect those amounts in the global adjustment. Note that, if this approach is accepted, the IESO and distributors and retailers would need the authority to collect such amounts as part of the GA and IESO would need the authority to pay such amounts to the Financing Trust. As such, additional amendments would be needed under O. Reg. 429/04.

- **Note:** Section 79.16 of the OEB Act does not require changes, but the significance of this provision should be understood.

    - Section 79.16 gives the OEB responsibility for determining electricity commodity prices for eligible consumers. Eligibility is determined under Reg. 95/05 (Classes of Consumers and Determination of Rates), which is also known as the Regulated Price Plan (RPP) Regulation.
    - Section 4(2) of the RPP Regulation defines RPP-eligible consumers as low volume consumers (i.e. those who annually use less than 150,000 kWh

or such other amount as prescribed), consumers with demand of 50 kW or less, residential consumers that have accounts with distributors, consumers who annually use 150,000 to 250,000 kW of electricity, and consumers who have accounts with distributors if in the farming business.

- Paragraph 6(1)3 of the RPP Regulation provides that "In determining the rates (for RPP-eligible consumers), the Board shall forecast the cost of electricity to be consumed by the consumers to whom the rates apply, taking into consideration adjustments required under section 25.33 of the *Electricity Act, 1998* and shall ensure that the rates reflect those costs."
- The Ontario Energy Board has developed a Regulated Price Plan Manual (revised February 16, 2016) to describe the processes and methodologies it uses for determining electricity commodity prices that are charged to RPP consumers pursuant to Section 79.16 of the OEB Act and paragraph 6(1)3 of the RPP Regulation.

(ii) O. Reg. 95/05 (Classes of Consumers and Determination of Rates)

- **Paragraph 6(1)3:** Amend so as to require the Board, when forecasting the cost of electricity to be consumed by the consumers to whom the rates apply, to take into consideration not only the adjustments required under section 25.33 of the Electricity Act but also the application or prior application of global adjustment smoothing amounts determined by the IESO in accordance with Minister directives under section ■ of the Electricity Act, and to ensure that the RPP rates reflect those amounts. **[NTD: See above note re use of Minister directives]**

(iii) New Regulation (Payments to the Financing Trust)

- If the OEB is to be given the role of reviewing and approving the recovery of OPG's internal administrative costs for the Financing Trust under the potential section 78.7 (see above), then this regulation should describe the process and criteria pursuant through which the OEB would determine the amounts that the IESO would be required to collect through the global adjustment, in accordance with section 25.33 of the Electricity Act, and pay to the Financing Trust in respect of the provision of global adjustment smoothing amounts. This part of the regulation should establish:

    - any reporting requirements from the Financing Trust and/or the IESO to the OEB in connection with the global adjustment smoothing mechanism;
    - the frequency of the OEB making determinations under this part of the regulation;
    - the process through which the OEB shall make these determinations, which should be a streamlined administrative process rather than a public hearing process or, if a hearing is needed, then the scope of the proceeding should be clearly and narrowly constrained so as to deter intervenor involvement, lengthy proceedings and reduce/eliminate risk to recovery by Financing Trust;

- the basis for the OEB's determinations as to the payments that shall be made to the Financing Trust, which should specify that:
  - the Financing Trust shall recover its prudently incurred internal administrative costs on a forecast basis each year;
  - the Financing Trust shall receive an appropriate fee each year (with some guidance as to what would be appropriate); and
  - the approved payment amounts shall be collected by the IESO through the global adjustment and paid to the Financing Trust in accordance with the order of the OEB then in effect. Note that O. Reg. 429/04 would likely need amendments to permit IESO (and distributors and retailers) to collect these amounts through the global adjustment.

From:	Carlos Yep
To:	"Thompson, Susan"; Holloway, Harold
Cc:	Thom, Trevor <Trevor.Thom@tdsecurities.com> (Trevor.Thom@tdsecurities.com)
Subject:	RE: Ontario Fair Hydro Plan - Equity Infusion
Date:	Wednesday, April 26, 2017 5:05:14 PM

Susan
I will check schedules and get back to you tomorrow.

Regards
Carlos

From: Thompson, Susan [mailto:Susan.Thompson@tdsecurities.com]
Sent: Wednesday, April 26, 2017 4:33 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; Holloway, Harold <Harold.Holloway@tdsecurities.com>
Cc: Thom, Trevor <Trevor.Thom@tdsecurities.com>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion

Hi Carlos,

We are available at following times. As you know, Trevor is out tomorrow but I'm happy to coordinate if that date/time suits you best:

Thursday, April 27th: 10:30 – 11:30 am and 2:30 – 5:30 pm

Friday, April 28th: 2:00 – 4:00 pm

Tuesday, May 2nd: 10:00 am – 1:30 pm and 3:30 pm – 5:30 pm

Regards,
Susan

From: Carlos Yep [mailto:Carlos.Yep@ofina.on.ca]
Sent: Tuesday, April 25, 2017 1:47 PM
To: Holloway, Harold
Cc: Thom, Trevor; Thompson, Susan
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion

Hi Harold,
Thank you for the Capital Injection Discussion slides.

Can you advise your availability for a conference call this week and next week to discuss further and I will check with others in the OFA and Ministry of Energy .

Regards
Carlos

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]
Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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From: John Kim
To: Bruno Amara
Subject: RE: Ontario fair Hydro Plan - GA Financing equity injection
Date: Monday, March 27, 2017 4:09:19 PM

So along this line of thinking, could we get Adam and Salman work on a note that discuss various options and details on how to accomplish the equity injection and facilitate the retractable option versus dividending out option in the eventual pay down of the injection?

There would be considerations like – do we segregate the existing common shares and the new injection shares? Equal voting rights for the newly injected equity? What would be the pros and cons if OPG were to engage in any AO down the road, etc.

Also, when OPG was initially set up, was there face value to the shares issued back then? (Not expecting answers to these right away but items to start thinking about.)

I was chatting quickly with Ron and we came to the idea that we may need to engage external lawyers on some of these. Might need to engage in 'balancing act' given we have lawyers in the government.

Always open to working with others too.

John

From: Bruno Amara
Sent: Monday, March 27, 2017 2:28 PM
To: Malle Hanslep (MOF) <Malle.Hanslep@ontario.ca>
Cc: Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>; Michael Waterston (MOF) <Michael.Waterston@ontario.ca>
Subject: RE: Ontario fair Hydro Plan - GA Financing equity injection

OK Thanks will do. I believe we have a working group meeting tomorrow, so we will update a draft note that we are working on and send that along to Toby post-meeting.

Bruno

From: Hanslep, Malle (MOF) [mailto:Malle.Hanslep@ontario.ca]
Sent: Monday, March 27, 2017 2:21 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>; Michael Waterston (MOF) <Michael.Waterston@ontario.ca>
Subject: RE: Ontario fair Hydro Plan - GA Financing equity injection

Hi Bruno,

Yes we were involved in the H1 IPO Transaction. To date, we have not been involved in

the Ontario Fair Hydro Plan except very peripherally. Would you please keep Toby Whitfield looped in to these discussion and give him any necessary background. I think we looked into one very general issue a few weeks back and I also had a general call with Ron Kwan. I'm not sure how MOF LSB will be involved on this in terms of any legislation or financing-related work and would be good to get an idea of that.

Thanks.

Malle

From: Bruno Amara [mailto:Bruno.Amara@ofina.on.ca]
Sent: March 27, 2017 1:55 PM
To: Hanslep, Malle (MOF)
Subject: Ontario fair Hydro Plan - GA Financing equity injection

Hi Malle,

I understand that your office was involved in assisting with aspects of the Hydro One IPO transaction. Electricity Finance Branch is participating on a working group (with OPG) looking into the province's equity injection around the Global Adjustment Financing component of the Ontario Fair Hydro Plan. I'm not sure of your involvement at this stage, or with whom, but we're happy to keep you, or appropriate contact, looped in to the discussions that we are having on this issue, or provide background

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

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From:	Bruno Amara
To:	Malle Hanslep (MOF)
Cc:	Tobias P. Whitfield (MOF); Michael Waterston (MOF)
Subject:	RE: Ontario fair Hydro Plan - GA Financing equity injection
Date:	Monday, March 27, 2017 2:28:05 PM

OK Thanks will do. I believe we have a working group meeting tomorrow, so we will update a draft note that we are working on and send that along to Toby post-meeting.

Bruno

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Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

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From:	Bruno Amara
To:	Tobias P. Whitfield (MOF)
Cc:	Michael Waterston (MOF); Malle Hanslep (MOF); John Kim
Subject:	RE: Ontario fair Hydro Plan - GA Financing equity injection
Date:	Tuesday, March 28, 2017 4:13:29 PM
Attachments:	GA Structure v12 To MOF_Legal.docx

Hi Toby

Attached is a draft working note that staff have prepared on the GA Financing structure. It is not ADM approved and continues to evolve so fyi for now. As noted we will be focussing on the equity injection side of things going forward and will keep you informed as we get new information or update the note. For now we are working with OPG, OFA and others to more clearly outline the process by which the Province would purchase further OPG equity as part of the GA Financing process. It is our understanding that this would be in place by June.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
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Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

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Thanks
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Structure of the Global Adjustment Deferral Mechanism

Issue

The Province is working with Ontario Power Generation (OPG), the Ontario Energy Board (OEB), IESO, external accountants, and other agencies to develop a mechanism to defer the global adjustment (GA) payment as part of the recently announced Ontario Fair Hydro Plan. This note outlines current proposals for this mechanism.

Context

- Smoothing of GA costs over time would involve ratepayers paying only a portion of the GA cost in earlier years, while this shortfall would be made up by future rate payers paying more than the true cost of the GA in later years.
    - There will be a proposed cap of $2.242B on the annual additional cost over the GA to lessen the burden on ratepayers.

- The shortfall in GA payments in earlier years would represent deferred costs to ratepayers. However, the mechanism would still need to compensate power generators on an ongoing basis for the full cost of the GA and would therefore need to borrow and take on debt to make cash payments to power generators.
- Principal payments on debt would be mandatory, but there has been no clarification on whether or not interest payments will be capitalized (i.e., interest accumulates resulting in compounding) or if interest will be recovered from ratepayers on an on-going basis.
    - If interest payments are made by ratepayers on an on-going basis debt costs would be lower, however this would also have the effect of reducing ratepayer savings from the GA deferral mechanism. The commitment is for a 25% reduction on average for all residential customers, which would mean that the amount of principal needs to be larger to offset this effect.
- It has also been proposed that all administrative and other costs from the GA deferral would need to be collected from ratepayers immediately or recognized at the very least as a future benefit to the Province, adding to the costs passed on to ratepayers.

Structure (*refer to Exhibit A*)

- The deferred portion of the GA needs to be recognized as an asset – likely a regulatory asset – by the IESO, which gives the IESO the right to collect the deferred amount from ratepayers at a future date.
- This asset, in turn, would be sold to another party that would receive the revenues associated with this asset.
    - It is proposed that the IESO be required to recover the costs associated with this asset even after selling it.
    - To do this the IESO would need to sell the asset in order to settle its arrangements with generators, and ensure generators are not affected by the deferral.
        - Alternatively, the IESO could simply borrow funds (using the regulatory asset as collateral), but this poses risks for both consolidation on public accounts and credit ratings.
        - With respect to the credit rating risk, DBRS stated in a March 3, 2017 report that "*Provided the debt continues to be fully supported through the electricity rate base, DBRS will treat it as self-supported and exclude it from the calculation of tax-supported debt*".
- OPG is proposing to set up a special purpose vehicle, "OPG Trust", which would purchase the regulatory asset from the IESO.
    - The purchase would be funded by debt from the capital markets (51% of the deferred GA Cost), and OPG (49% of the deferred GA).
    - OPG would finance that 49% through debt from the capital markets (5%) and an equity injection from the Province (44%).

    - The debt would be set-up in tranches to ensure that the 51% of debt directly from the market would be senior, potentially mitigating the risk premium associated with high amounts of borrowing with an intangible, unique asset as collateral.
- There are several other considerations and requirements that would need to be attained in order for the mechanism to work, as detailed in the OPG White Paper sent to the Deputy Minister of Energy on February 27, 2017.

Equity Injection (*refer to Exhibit A & B*)

- The equity injection could lead to increasing, and then stabilizing dividend payouts in consistent with OPG's's risk profile and comparable business entities.
    - Principal and interest payments flowing from the ratepayers through the IESO and the Trust could be paid back to the Province.
    - This would increase steadily as ratepayers begin to pay back principal in about 10 years' time, eventually reaching a cap of $2.242B in principal and interest per year based on Energy's March estimates (based on the capitalized interest scenario).
    - The administrative costs and return for OPG/OPG Trust would also need to be collected by ratepayers, but the dividend payments would be net of these amounts and should still allow the Province to earn a substantial return.
    - Dividend payments could also allow OPG to eventually optimize its capital structure to the targeted or deemed 55%-45% debt to equity split, as dividends allow OPG to reduce its retained earnings thereby reducing equity.
- Recapitalization from the Province is preferable as there are no associated interest expenses or large principal payments that could affect OPG's credit rating.
- If debt financing was utilized, the change in the cost of borrowing could also impact OPG's rate applications for the return recovered from ratepayers through payment amounts, potentially offsetting ratepayer benefit of the GA deferral mechanism.
- The financing structure split between equity (44%) and debt (5% borrowed by OPG and 51% borrowed by OPG Trust) is roughly equivalent to the deemed capital structure of 55% debt and 45% equity for regulated distributors in Ontario.

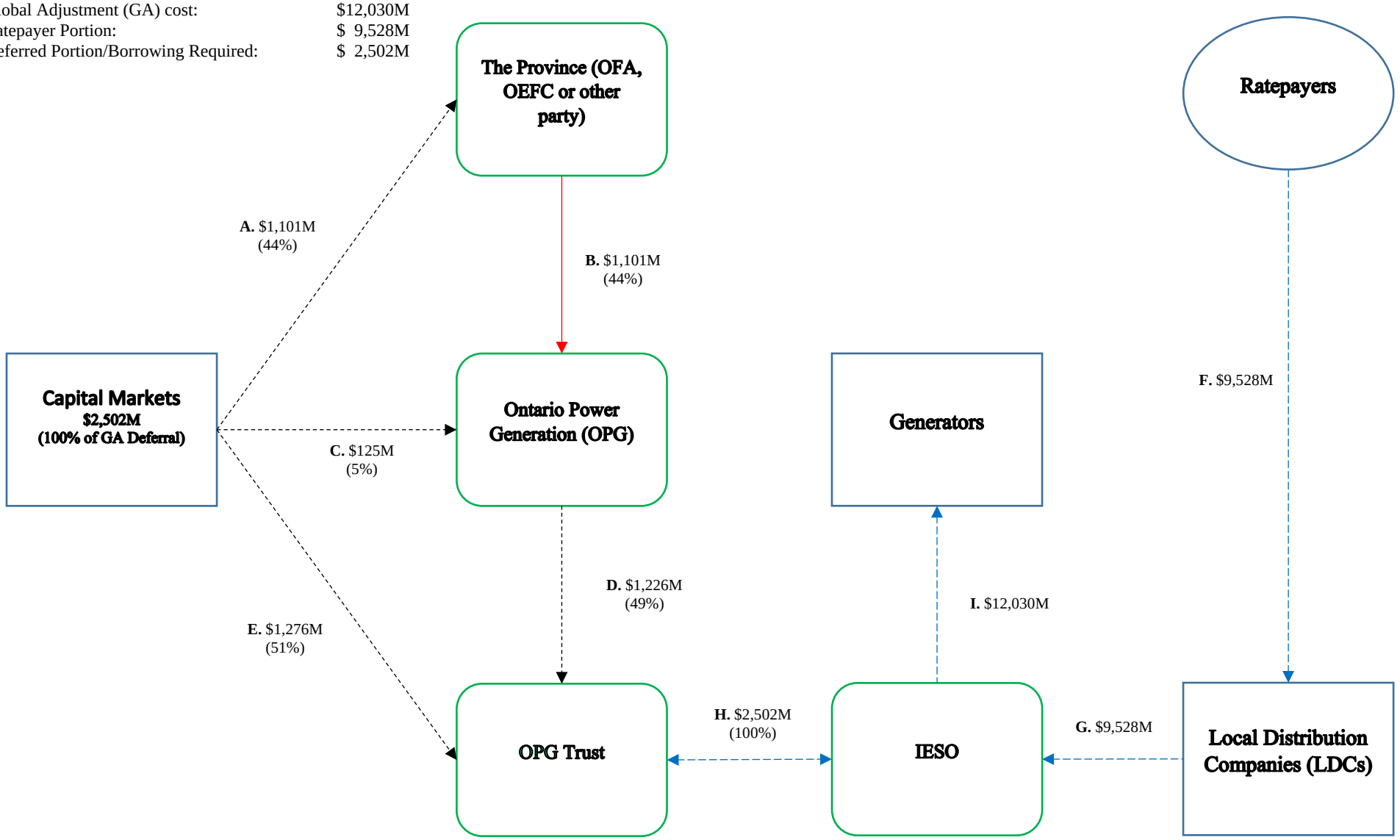
Collection of Interest Payments (*refer to Exhibit C*)

- There are different potential accounting treatments, depending on legislative and regulatory approval, that would impact the amount of borrowing and interest over the long term as well as the total fiscal impact.
    - **Option 1: Collect interest and administrative costs from ratepayers on an on-going basis:** Interest and the costs to finance/administer the GA deferral mechanism would be recovered from ratepayers along the way. This would allow cash and income to be recognized by OPG Trust equivalent to the total borrowing cost from the market (i.e., the interest on the 44% of the GA the Province borrowed from the market, the 5% of the GA OPG borrowed, and the 51% of the GA OPG Trust borrowed). Furthermore, some type of additional return for the risk premium could be made. Overall, there would be no fiscal cost, and less debt would build up over time due to the elimination of the compound effects on interest.
    - **Option 2: Collect interest costs associated with the senior debt**: There are variations on this concept which essentially proposes to only collect some of the interest costs from ratepayers, with the senior debt that OPG Trust borrows directly from the market of primary concern. This is "meeting halfway" between deferring all interest payments and collecting all interest payments from ratepayers immediately.

- Option 3: **Do not collect from ratepayers**. There is a fiscal impact equal to 100% of the interest on the total borrowings as an expense still needs to be recognized, even though cash interest has not been paid. There is also a compounding effect on interest.
- Option 4: **No collection from ratepayers but deferral of expense recognition (Same as Energy's analysis in its Cabinet Submission)**. For this option, there is no collection of interest payments from ratepayers, but OPG Trust is somehow allowed to defer the recognition of interest expense on its books and recognize as a regulatory asset, thus eliminating the fiscal impact.
    - If OPG Trust were allowed to recognize a regulatory asset, then it could defer the interest expense, instead recognizing it as an asset (similar to the idea of a prepaid expense).
    - Thus, OPG would recognize interest income from OPG Trust, but OPG Trust would not recognize an expense related to the amount owed to OPG and instead would increase the regulatory asset by the same amount.
    - The interest income earned by OPG for the 49% of the GA deferral it borrowed would offset the borrowing the Province made from the capital markets.
    - OPG Trust would also defer the recognition of the interest associated with the 51% of the GA deferral it borrowed from the market. The deferred amount would be recognized in a regulatory asset.
    - When OPG starts collecting principal and interest from ratepayers, it will recognize income, but will also amortize the regulatory asset at the same time, thus matching revenue and expenses with each other in the time period and potentially eliminating the fiscal impact.
    - Many factors, including the initial accounting treatment and the effect of consolidation, are significant barriers to the application of this approach.
    - **Alternatively, OPG Trust might be able to recognize income (with a receivable created to balance the transaction) to offset the interest expense without collecting from ratepayers**, i.e., it will be a cash transaction in the future (cash received offset by a decrease in the receivable; no effect on income statement).

Exhibit A; 2017-2018 Estimates for Balance Sheet Transactions

Global Adjustment (GA) cost:	$12,030M
Ratepayer Portion:	$ 9,528M
Deferred Portion/Borrowing Required:	$ 2,502M



Setting up the Trust

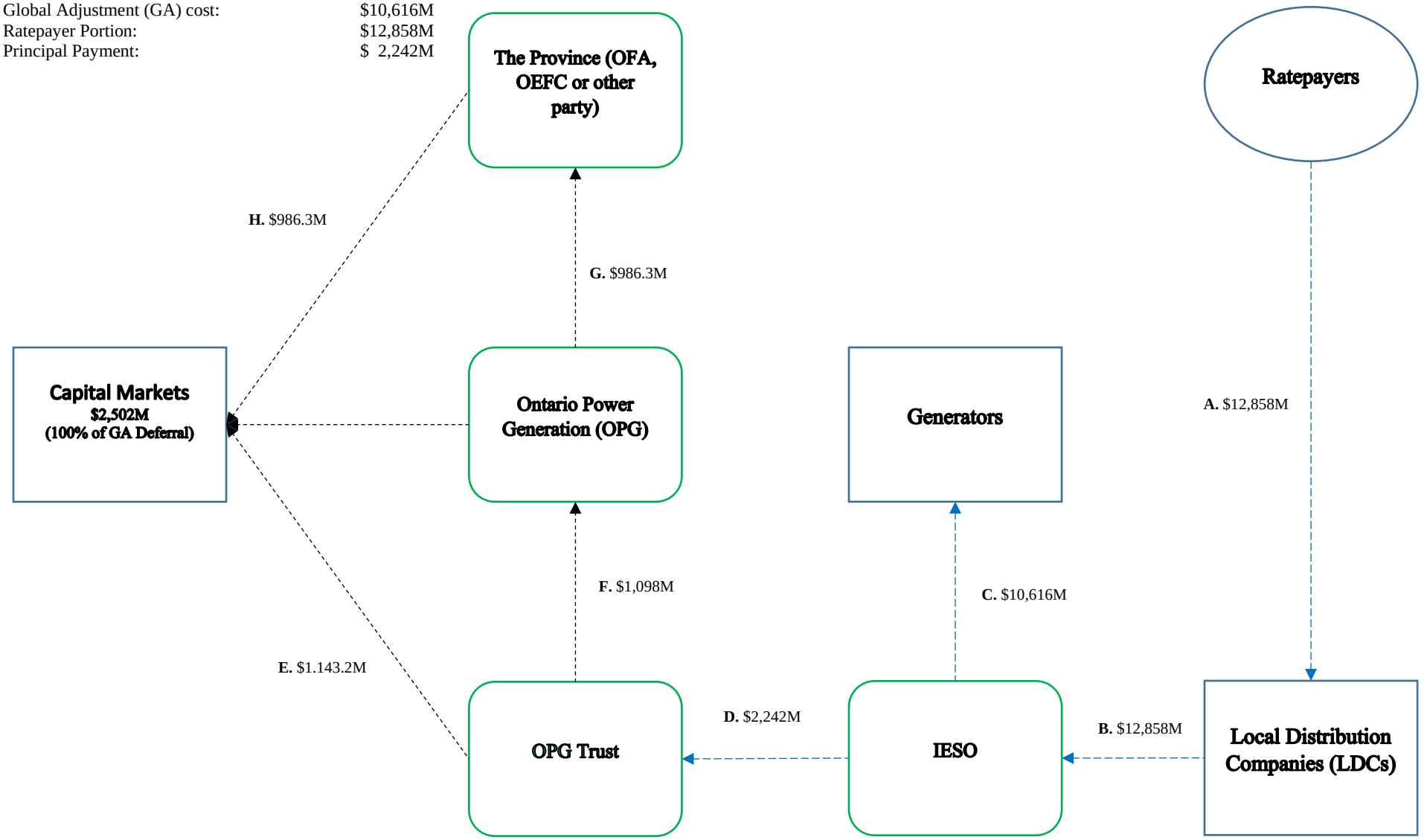
A. The Province borrows 44% of the deferred GA from the market.
B. The Province then funnels this amount to OPG through an equity injection.
C. OPG borrows 5% of the deferred GA from the market.
D. OPG lends an amount equal to the 5% and 44% from the market and the Province, respectively, to a separate legal entity called OPG Trust.
E. OPG Trust borrows 51% of the deferred GA from the market, ending up with 100% of the total $2.502M deferred GA in cash.

Deferral Mechanism

F. Ratepayers pay their portion of the GA to LDCs.
G. The LDCs remit this amount to IESO.
H. IESO, with the proper legislation and accounting treatment, is allowed to recognize a regulatory asset – the right to collect the deferred amount of $2,502M from ratepayers. It then sells this asset for cash to OPG Trust.
I. IESO uses the proceeds from the sale of the regulatory asset and the collection amount from LDCs to pay the full amount of the GA to Generators.

Exhibit B: 2028-2029 Estimates for Principal Payments

Global Adjustment (GA) cost:	$10,616M
Ratepayer Portion:	$12,858M
Principal Payment:	$ 2,242M



Collection of the GA

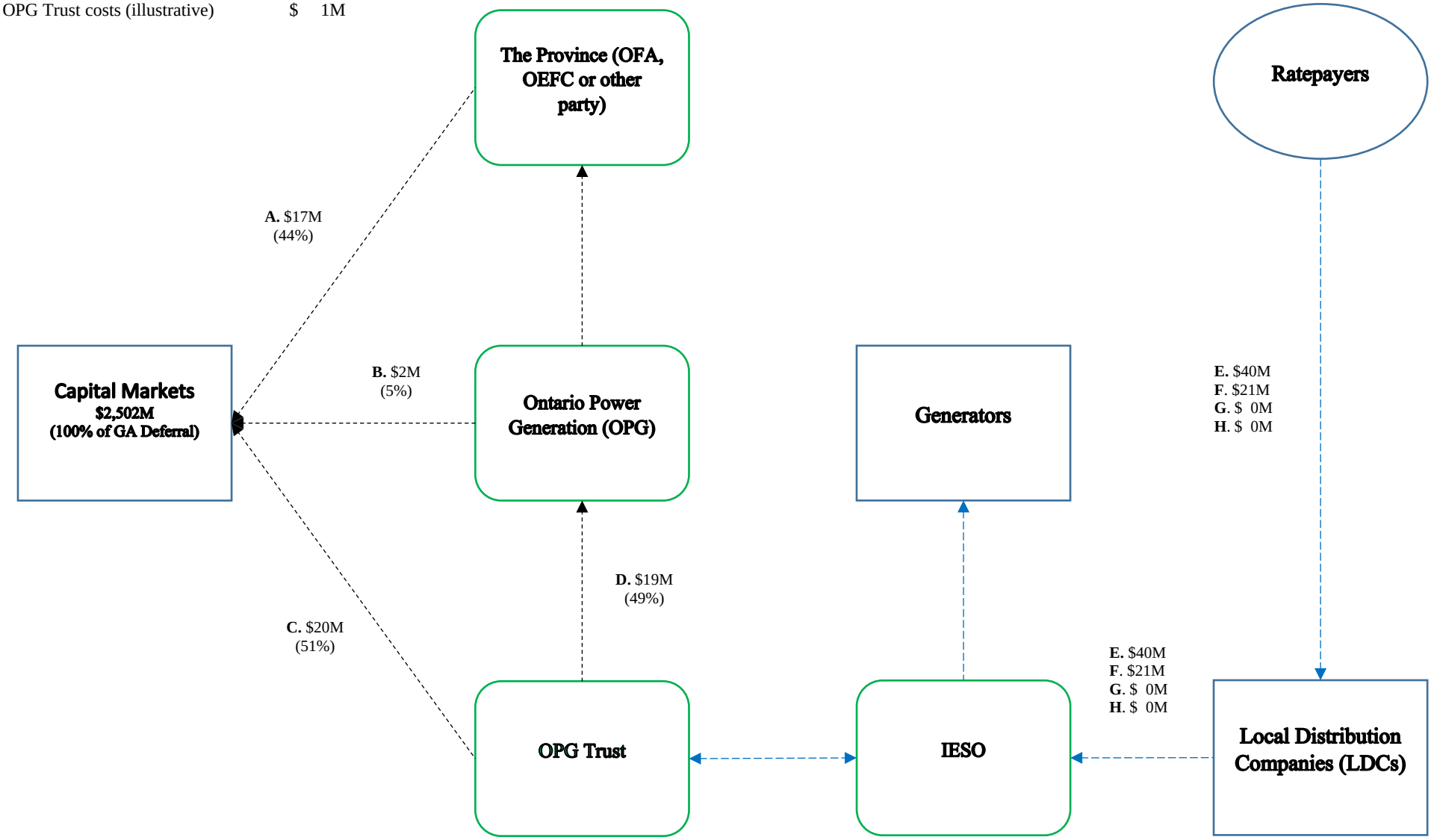
A. Ratepayers pay to LDCs the full cost of the GA plus an additional $2.242M that will be used to reduce the principal of the borrowing (or principal and interest if there is "interest on interest").
B. LDCs remit this amount to IESO.
C. IESO pays the full cost of the actual GA to generators.
D. IESO pays to OPG Trust the additional payment from the ratepayers over the actual GA cost. OPG Trust reduces the asset (for the right to collect GA deferral costs from ratepayers) by an equivalent amount.

Settlement of Principal.

E. OPG Trust pays off principal to the market. In this example, pays off 51%, but could pay more or less depending on various factors (e.g., subordinate debt, managing weighted average interest cost, etc.).
F. OPG Trust pays down principal related to the 49% of the GA Deferral it borrowed from OPG.
G. OPG could give a dividend to the Province equal in order to pay off the outstanding principal it borrowed from the market (44% of the total GA deferral cost)
H. The Province pays back principal to the market.

Exhibit C: 2017-2018 Estimates for Interest Recognition

Interest Recognized	$ 39M
OPG Trust costs (illustrative)	$ 1M



Recognition of Interest

A. The Province recognizes interest on the 44% of the deferred GA it borrowed from the market.

B. OPG recognizes interest on the 5% of the deferred GA it borrowed from the market.

C. OPG recognizes interest on the 51% of the deferred GA it borrowed from the market.

D. OPG Trust recognizes interest on the 49% of the GA it borrowed from OPG; OPG recognizes income for this transaction.

Options for Ratepayer collection

E. Option 1 – collect the entire interest amount from ratepayers plus the Trust administrative costs, thus offsetting the interest expense from total borrowing with the recognition of income. The end result is no fiscal impact.

F. Option 2 – only collect interest income for the 51% of deferred GA from the market and admin costs; OPG Trust would recognize income to offset the interest expense to the market but fiscal impact of 49% of the interest ($19M)

G. Option 3 – Do not collect from ratepayers – fiscal cost of 100% interest.

H. Option 4 – No collection from ratepayers, but OPG Trust is allowed to defer the recognition of interest expense on 100% of debt, leading to no fiscal impact.

Notes

- Assumptions based on Energy models and data, IESO forecasts, and CEFD validation models.
- Sources include Ministry of Energy decks, OPG reports and discussions, external accounting reports, and internal reports/discussions.

Corporate and Electricity Finance Division
Ontario Financing Authority
March 17, 2017

From: Ronald Kwan
To: Scott Nelms (ENERGY); John Kim
Subject: RE: PILs Exemptions
Date: Tuesday, April 25, 2017 4:29:35 PM

Thanks for update Scott.

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-25-17 15:49
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: PILs Exemptions

Hi Ron, John,

I wanted to keep you apprised of where we are with Tax Policy on OPG's request for specific PILs exemptions as part of OFHP. See below for details – we are hoping to punt to regulations.

Thanks,
Scott

From: Nelms, Scott (MOF)
Sent: April 25, 2017 3:25 PM
To: 'Hill, Krista'; john.s.lee@opg.com
Cc: RYFA Ken -TREASURY; WONG Leslie -LAWDIV; Wortsman, Jerald; Watson, Gwen; Feldman, Michael; Calwell, Carolyn (ENERGY/MEDEI/MRI); Rehob, James (ENERGY)
Subject: RE: Comments

Hi Krista, John,

We shared your ask with Finance Tax Policy and they have been mulling this over for the past few days. We had a conversation this morning and I wanted to provide a synopsis of that call:

- Tax Policy is of the view that if this is structured as a Trust will be a taxable entity under the Income Tax Act. However, because OPG is the beneficiary of the Trust, it will not pay any taxes. For greater certainty, Tax Policy suggested seeking a ruling from CRA. If necessary, we could seek an exemption from CRA (there is precedent with the Nuclear Funds Trust). Please let me know whether that is consistent with your assessment.
- Since all income from the Trust will flow to OPG, all revenues would be subject to PILs (unless we take action to make specific exemptions).
- As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust.
- Tax Policy has a number of questions about how to define those exempted revenue streams and the rationale for those exemptions. They want considerably more detail and more time to consider this issue.

- According to Tax Policy, existing Legislation (James I will leave it to you to describe) provides authority to set out PILs exemptions in regulations. Therefore they suggest we do not need to add anything in to the OFHP legislation at this time. That will provide time to more fully consider the issue and discuss the need for these exemptions.
- I suggested I was generally comfortable with this approach, subject to input from OPG and Torys. I think it is better for us to have more time and the flexibility to include these provisions in regulations. Given where we are in the process, I think we are out of time to settle legislative language that will work for Tax Policy.

James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From: Ronald Kwan
To: John Kim
Subject: RE: PILs Exemptions
Date: Tuesday, April 25, 2017 4:45:22 PM

Hi,

I interpreted the "As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust" that the reference was revenues from the Trust to OPG that they are seeking a PILs exemption for, so, different than I had understood.

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-25-17 15:49
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: PILs Exemptions

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James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From:	John Kim
To:	Ronald Kwan
Cc:	Gavin He
Subject:	RE: Rate Mitigation Implementation Meeting - April 6, 2017
Date:	Wednesday, April 05, 2017 5:33:28 PM
Attachments:	BN - GA Equity Injection Structure v6_Markup2Clean.docx.msg

Hi Ron,

Thanks.

On the note we shared with you on Monday, attached above, would you be okay with us sharing the draft with OPG? We have CMD's comments and also EIGS' comments are imminent.

Thanks,

John

From: Ronald Kwan
Sent: Wednesday, April 05, 2017 5:29 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Rate Mitigation Implementation Meeting - April 6, 2017

Hi John,

FYI.

Ron

Begin forwarded message:

> **From:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>
> **Date:** April 5, 2017 at 5:22:25 PM EDT
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Mike Manning <Mike.Manning@ofina.on.ca>
> **Cc:** Anna Strathy <Anna.Strathy@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
> **Subject: Fw: Rate Mitigation Implementation Meeting - April 6, 2017**
>
> ---
> From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
> Sent: Wednesday, April 5, 2017 5:09 PM
> To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE

(ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,
Please find attached material for tomorrow's meeting.
Keley

Keley Katona | Director of Operations
Deputy Minister’s Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca<mailto:Keley.Katona@Ontario.ca>
4th Floor, Hearst Block, 900 Bay Street

From: John Kim []
To: Ronald Kwan [Ronald.Kwan@ofina.on.ca]
CC: Bruno Amara [Bruno.Amara@ofina.on.ca]; Francisco Chinchon [Francisco.Chinchon@ofina.on.ca]
Subject: BN - GA Equity Injection Structure v6_Markup2Clean.docx
Date: Monday, April 03, 2017 10:31:58
Attachment 1: BN - GA Equity Injection Structure v6_Markup2Clean.docx

---

Hi Ron,

Pls. see attached note that we are looking to circulate later today among the equity injection working group, at least within the OFA.

Thanks,

John

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.
- OPG will develop a Special Purpose Vehicle (SPV)referred to as "OPG Trust" to purchase the "right to collect" assets from the IESO in return for cash proceeds.
- OPG Trust will be structured to finance 51% of its funding requirements through the capital markets with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
        - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g. debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

Commented [JK1]: Check with SIFB or CMD on the right terminology.

Commented [FC2]: To me this is part of the terms and conditions

BORROWING

- The 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility which will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.
    - OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.
- Longer term debt will be issued as soon as possible, subject to market timing constraints.

Commented [JK3]: Did I get this right?

Commented [FC4]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

- OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
- The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].

- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK5]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK6]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure once the GA financing program has subsided.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC7]: Not quarterly?

Commented [JK8]: Monthly now.

Commented [FC9]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

PROCESS

- OPG Trust would receive the notice to purchase the asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.
- Separately OPG and OPG Trust would take out debt from the capital markets totaling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Commented [SQ210]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
    - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
    - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 4, 2017

From:	Ronald Kwan
To:	John Kim; Bruno Amara
Cc:	Gavin He
Subject:	RE: Rate Mitigation Implementation Meeting - April 13, 2017
Date:	Wednesday, April 12, 2017 6:50:24 PM
Attachments:	Letter from Province to OPG_Markup.docx Consolidated - OFHP Matrix - Week of April 10_Markup.docx

Hi,

I had a quick review of the draft letter, and noted some issues I'd like to know the status of on the matrix.

Ron

From: Gavin He
Sent: April-12-17 17:36
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - April 13, 2017

Hi John/Bruno,

Please find attached the meeting materials for your review.

Thanks,
Gavin He

From: Gadi Mayman
Sent: Wednesday, April 12, 2017 5:35 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Anna Strathy <Anna.Strathy@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation Meeting - April 13, 2017

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Wednesday, April 12, 2017 5:33 PM
To: Steen Hume (CAB) <Steen.Hume@ontario.ca>; Kaili Sermat-Harding (ENERGY) <Kaili.Sermat-Harding@ontario.ca>; Michael Reid (ENERGY) <Michael.Reid@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com) <jeffrey.lyash@opg.com>; HARTWICK Ken - FINANCE (ken.hartwick@opg.com) <ken.hartwick@opg.com>; Rosemaire Leclair <rosemarie.leclair@ontarioenergyboard.ca>; Mary Anne Aldred

(maryanne.aldred@ontarioenergyboard.ca) <maryanne.aldred@ontarioenergyboard.ca>; Campbell, Bruce (bruce.campbell@ieso.ca) <bruce.campbell@ieso.ca>; Kim Marshall (Kim.Marshall@ieso.ca) <Kim.Marshall@ieso.ca>; Scott Thompson (CAB) <Scott.Thompson@ontario.ca>; Helen Angus (MOHLTC) <Helen.Angus@ontario.ca>; Steven Davidson (MTCS) <Steven.Davidson@ontario.ca>; 'Martine Band' <Martine.Band@ontarioenergyboard.ca>; 'CROZZOLI Carlo -CBUSDEV&STRT' <carlo.crozzoli@opg.com>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; LEE John -TREASURY <john.s.lee@opg.com>
Cc: Serge Imbrogno (ENERGY) <Serge.Imbrogno@ontario.ca>; Andrew Teliszewsky (ENERGY) <Andrew.Teliszewsky@ontario.ca>; Matt Whittington (ENERGY) <Matt.Whittington@ontario.ca>; Baker, Carys (ENERGY) <Carys.Baker@ontario.ca>; Kyle MacIntyre (MOF) <Kyle.MacIntyre@ontario.ca>; David McLean (MOF) <David.McLean@ontario.ca>; Robert Foster (MOF) <Robert.Foster@ontario.ca>; jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca' <sarah.branco@ontarioenergyboard.ca>; Turnevicius, Lorraine <lorraine.turnevicius@ieso.ca>; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY) <Francesca.Bungaro-Yemec@ontario.ca>
Subject: Rate Mitigation Implementation Meeting - April 13, 2017

Good evening,
Please find attached the material for discussion tomorrow morning.
Thanks,
Keley

DRAFT: April 11, 2017

[Letterhead of Minister of Energy]

April [●], 2017

Bernard Lord
Board Chair
Ontario Power Generation Inc.
700 University Avenue, 19th Floor
Toronto, Ontario
M5G 1X6

Dear Mr. Lord:

I am writing further to the Premier's news release of March 2, 2017, in which the Province announced the Fair Hydro Plan to lower electricity bills by 25 per cent on average for certain customers starting in the summer of 2017, as part of a significant system restructuring that will address long-standing policy challenges and ensure greater fairness. Given OPG's expertise as a participant in the electricity market and its expertise in rate regulated accounting and investment stewardship over significant pension and nuclear funds, I am writing specifically to request OPG's involvement in the implementation of the Global Adjustment Refinancing component of the Fair Hydro Plan

As you will have read, the 25 percent reduction in residential electricity bills referred to in the March 2nd announcement includes the ~~8 per cent~~ reduction resulting from the rebate of the amount equivalent to the 8 per cent provincial portion of the harmonized sales tax on electricity bills effective January 1, 2017. The Province has also committed that certain customer bills would not increase by more than the rate of inflation for the four years following the 25 per cent average reduction.

In addition, as you know, Ministry of Energy staff have been working on preparing the draft legislation and regulations to implement the Fair Hydro Plan, with input from the IESO, the OEB, OPG and their respective advisors.

The Province is requesting that OPG, working with the Ministry of Energy, the IESO, the OEB, and their respective advisors, consider and recommend a plan for financing mechanisms that could achieve the Province's objectives for the reduction in consumer bills and the limitation on bill increases outlined above and in the Fair Hydro Plan, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan.

In particular, the Province would like OPG's financing plan to consider, among other things, structures and methods that would permit viable refinancing of a portion of the Global Adjustment to reduce electricity prices for certain of today's electricity ratepayers, with the costs of the refinancing to be recovered over a period of up to 30 years, all in accordance with the legislation and regulations designed to facilitate the Fair Hydro Plan. We would expect the financing plan to include:

i) potential structures for the financing, which may include, as appropriate, a special purpose vehicle created for the financing;

ii) potential financing mechanisms and instruments, including senior debt and subordinated debt; and

iii) identification of the capital markets and jurisdictions that can be accessed to finance the rate mitigation.

The Province recognizes the need to provide OPG with the necessary assurances with respect to recovery of the principal, interest, and operating and other costs of any financing and will address the specific requirements identified by OPG and its financial advisors, including in the pending legislation and regulations that will govern the mechanics and requirements of the financing entity. We would also request that your plan identify any amendments to OPG's governing legislation and constating documents needed to facilitate the implementation of the financing plan in a commercial manner.

We would further expect that the financing plan would be implemented in an effective and cost-efficient manner by OPG.

I look forward to receiving a detailed plan that has the support of the OPG Board of Directors by June 1, 2017.

Yours truly,

The Honourable Glenn Thibeault
Minister of Energy

Implementation of Ontario's Fair Hydro Plan
Week of April 10, 2017

Item	Key Deliverables / Considerations	Timing / Next Steps
1) Refinancing the Global Adjustment (ESP/IGS)		
• ENERGY, LSB, IESO, OPG, OEB, TBS and MOF	• Legislation • Defining mitigation and recovery mechanism • Establishing roles for IESO, OPG and OEB • Regulation (amend O.Reg. 95/05) • Shareholder Resolution (work with OPG to determine form) • Accounting opinions from E&Y (OPG) and KPMG (IESO) • Financing: o How long will IESO hold short term liability (weeks/months); o When and how frequently will OPG purchase the asset from IESO; o OPG trust rating agency review and 3rd party lender market sounding (e.g., cost/term, etc); o OPG to confirm if it is considering more than one SPV/subsidiary; o OPG to explore tax considerations; o OPG to indicate how it would determine interest rate on sub-debt; and o OPG to provide amount/frequency of equity required and indicate trigger • Third Party Technical Report (e.g., long lived assets, associated assessment of social, health and environmental benefits) <u>Recent Action Items</u> **OPG:** • OPG to continue to work with lead banks / rating agencies / OFA on financing issues • OPG to confirm accounting if OFA were to act as lead order on borrowing • OPG to determine who will finance / hold the asset until it goes to	• IESO Board meeting on April 12, 2017 – ESP to present on OFHP • AG briefing on April 19, 2017 (TBD) • Provide comfort letter to allow OEB to include in May 2017 RPP • April 21, 2017, "pens down" on Legislative drafting • Approval dates: o TB/LRC on May 1 2017; and o Cabinet on May 3, 2017 • Legislation introduced May 4, 2017. o Opposition Briefing (TBD) • Summer 2017 implementation (June/July). OPG preference for July 1 to align with quarter-end

Item	Key Deliverables / Considerations	Timing / Next Steps
	the market • OPG to embed OFA/Energy (as necessary) in their ongoing internal discussions • ESPD, IESO and OPG to continue discussions around refining refinancing modelling • OPG /LSB to work through requirements / help draft a shareholder resolution in a form to be determined. OPG to continue to consider requirements for enhanced indemnification for Board member • OPG providing shareholder resolution to OPG Board committee April 7, 2017 and will be provided to Ministry following that **IESO:** • IESO to work through technical aspects with IT (i.e., operationalizing the back-office functions) • IESO to work with KPMG in the development of a formal opinion once first draft of legislation is available • IESO to discuss LDC issues with OEB **OEB:** • OEB to continue to work with ENERGY to finalize draft comfort letter regarding May 1 – Regulated Price Plan (RPP) and OESP • OEB to draft RPP communique to be released publicly by April 20, 2017 **Legislative Drafting:** • LSB / Blakes / OPG / IESO will continue to work through legislative drafting issues • LSB has drafted a letter for the Minister to send to LDCs re: contempt of the Legislature • Working group meetings Monday and Tuesday • ENERGY / Blakes / IESO / OEB / OPG to meet on Monday to work through issues related to legislation • KPMG / E&Y to continue to be informed so that they can eventually confirm we've met all conditions • Blakes / OPG to work through financing issues related to 10% cap	

Item	Key Deliverables / Considerations	Timing / Next Steps
	• Blakes / LSB to work with MAG on a second constitutional law opinion from Peter Hogg • TD engaged through OFA to provide financial advice Considerations • OEB-RPP Filing in May 2017. OEB may also be required to set new GA rate for RPP-eligible consumers. • Ongoing legal, accounting and financing risk assessments. • Impact on Electricity Sector Dedicated Income.	
2) Broadening Rural or Remote Rate Protection (RRRP) (SNAP)		
• ENERGY, LSB and LDCs	• Legislation • Regulation (TBD) Recent Action Items • SNAP convened LDC working group on March 23rd and March 24th • SNAP to continue to monitor rate hearings for RRRP LDCs • SNAP to collect billing implementation timeline estimates from LDCs • SNAP working with CSD / TBS on allocation for each program (RRRP, OESP, FN Rate and OREC) without executive control on each Considerations • Consideration of revising definitions of RRRP program for broadening to other LDCs and continue to have current structure in place to provide to existing consumers in Algoma and Remotes. May require separation of RRRP and broader distribution rate protection into separate programs. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC on May 1, 2017 (TBD) • Fall 2017 implementation (per Cabinet Minute)

Commented [RK1]: Why is this still here?

Commented [RK2]: Who at MOF?

Item	Key Deliverables / Considerations	Timing / Next Steps
3) Expanding Ontario Electricity Support Program (OESP) (SNAP)		
• ENERGY, LSB, MCSS and OEB	• Legislation • Regulation <u>Recent Action Items</u> • LRC package for OESP enhancements (50% increase, expanded eligibility) approved by LRC and Cabinet. o Implementation on May 1 to align with OEB decision to end OESP charge on May 1, and to finance program through variance account. • SNAP to continue to work through OESP automatic qualification with MCSS / OEB • SNAP to continue to work with, MOF, OEB and CRA on OESP wet signature • SNAP to work with TBS map out how funds will flow from fiscal plan after legislation passes <u>Considerations</u> • Ministry is working with OEB on how the OESP enhancement will be announced as part of a communications exercise. • Positive progress with OEB on implementation: o OEB has been engaged on implementation timelines for 50% + new eligibility – OEB working with LDCs to ensure systems are upgraded to reflect new credit amounts o Ongoing work with MCSS to auto-enroll those receiving / applying to social programs. Work plan for implementation being developed with OEB support. • As part of legislation / regulatory amendment work, investigating steps required to transition from OESP variance (approx. $100 million) to finance the program to financing with tax funds. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF.	• Report back to TB/MBC on May 1, 2017 (TBD) • LRC on April 10, 2016 • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
4) Providing a First Nations On-Reserve Delivery Credit (SNAP)		
• ENERGY and LSB	• Legislation • Regulation (TBD) <u>Recent Action Items</u> • SNAP convened LDC working group on March 24th • SNAP to move forward with including COO in FN rate implementation / work through implementation issues. SNAP working to meet with COO to have preliminary discussion of the FNDC • OEB has not posted FN rate report just yet as conversations are ongoing between Ministry on a letter from the Minister to the OEB acknowledging receipt of the report and outlining the plan for implementation <u>Considerations</u> • On-reserve eligibility considerations require discussion with Chiefs of Ontario • Work with LDCs on implementation details that need to be captured in legislation. • Legislation required to have program funded by taxpayers. • Technical/governance structures needed to flow taxpayer money to programs. Need to work with IESO/OEB/MOF. • Work with LDCs to consider any bill messaging.	• Report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant OEB estimate of program costs, from $13 million to $20 million • Program in place in 2017 (per Cabinet Minute)

Item	Key Deliverables / Considerations	Timing / Next Steps
5) Establishing an Affordability Fund (CRED)		
• ENERGY, IGS, LSB, Blakes, CSD, OPCD, TBS, MOF and H1 (KPMG and Osler)	• TBC/MBC Submission • Declaration of Trust ("Trust Deed") • Transfer Payment Agreement (TPA) • Administrative Services Agreement (H1-Trust) <u>Recent Action Items</u> • March 23 and 24: Trust Deed and TPA executed. • March 30: Funds transferred to Computershare. • April 7, 2017: Briefing for Advisory Committee members <u>Considerations</u> • Legislative changes not required.	**April to May 2017:** • Advisory Committee recommends Board of Trustees by May 31, 2017; Computershare appoints full Board of Trustees **June 2017:** • Trustees expected to engage with distributors, IESO, OEB, others, to define funding criteria and processes. **June 2017:** • Report back to TB/MBC with final program details and a performance management framework including outcome measures and targets **Summer 2017:** • LDCs begin to apply to the Trust for funds **Late 2017/early 2018:** • ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust

Item	Key Deliverables / Considerations	Timing / Next Steps
6) Expanding ICI (ESP)		
• ENERGY, LSB, IESO and LDCs	• Regulation (amend O.Reg.429/04) • Regulatory Registry (RR) posting <u>Recent Action Items</u> • ESP working to finalize materials for LRC on April 10, 2017 – draft language from leg. Counsel has been shared with ESP staff • Communications finalized TPA with OCC / ESP, CRED and COMMS to consider providing support to CME (outreach with CME ongoing) <u>Considerations</u> • Amendments need to be in effect as much in advance of the consumer notification date as possible to impact electricity bills this year (May 31, 2017). • Ongoing outreach with LDCs being undertaken by IESO	• RR posting on the proposed amendment – posted March 9, 2017 for 30 days • LRC on April 10, 2016 • Report back to TB/MBC on May 1, 2017 • Effective April/May 2017 (TBD)
7) Energy Sector Efficiencies (i.e., Ontario Energy Board and IESO) (SNAP / ESP)		
• ENERGY, LSB, OEB and IESO	**OEB:** • Directive / Letter (TBD) <u>Considerations</u> • Signal efficiencies intent in OEB business plan letter • Work with OEB/LDCs on LTEP document and proposed directive to OEB **IESO:** • Directive / Letter (TBD) <u>Considerations</u> • IESO's stakeholder engagement re Market Renewal is ongoing.	• Continue this work as part of LTEP

Item	Key Deliverables / Considerations	Timing / Next Steps
8) Additional Initiatives for Small Business and Industrials (i.e., Class B) (ESP)		
• ENERGY, MEDG, MOF, MOECC, MOL and Small Business	• Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers' Recent Action Items • ESP to work with other ministries regarding other measures that can be considered for SMEs Considerations • TBD	• Report back to TBC/MBC and Cabinet in spring 2017 (per Cabinet Minute)
9) Initiatives for Tenants (SNAP)		
• ENERGY and MOH	• Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs Considerations • MHO leading any legislative/regulatory changes needed to have tenants benefit from program. Consider whether benefits are limited to 8% and GA (rather than OESP which is harder to provide to tenants who do not pay their bills). • ENERGY working with MCSS to streamline/automate enrollment for ODSP/OW consumers into OESP.	• Report back to TBC/MBC and Cabinet in fall 2017 (Per Cabinet Minute)
10) Stakeholder/Agency Outreach (Communications)		
• ENERGY	• Minister's letters to: o Ratepayers; o LDCs; o Business (e.g., OCC, CME, Concerned Manufactures, etc); and o Agencies (i.e., IESO, OPG, OEB and H1)	• Early-mid March

Commented [RK3]: Has MOF been engaged? Who?

Item	Key Deliverables / Considerations	Timing / Next Steps
11) Engagement with Officers of the Legislature		
• ENERGY, MOF/OFA, Financial Accountability Officer (FAO)	• Provide FAO staff with a technical briefing on the OFHP	• March 9, 2017: Preliminary discussion • March 14, 2017: Letter received requesting additional information. March 31, 2017, information provided to the FAO
• ENERGY, MOF/OFA, Auditor General (AG)	• Provide the AG with a technical briefing on the OFHP <u>Recent Action Items</u> • Provide AG technical briefing presentation used in media lock-up on OFHP in advance of the technical briefing	• March 2017: Cabinet submissions provided to AG • April 19, 2017: Preliminary discussion on (TBD)
12) Bill Presentment (SNAP/LSB)		
• ENERGY	• Ministry to begin work on bill presentment <u>Recent Action Items</u> • MO to clarify bill presentment expectations with PO (Bill inserts will be ready for July 1 with bill redesign to occur in the Fall)	• Initial discussion on March 31, 2017

From:	Ronald Kwan
To:	John Kim; Emily Kerr
Cc:	Gavin He
Subject:	RE: Rate Mitigation Implementation
Date:	Thursday, March 16, 2017 4:54:07 PM

Point 4.3, that is.

From: Ronald Kwan
Sent: March-16-17 16:53
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

Hi John, Emily,

FYI on the attached.

Emily, note point 8 in the legislative issues document:

- restrictions on consumer group's ability to "opt-out" or by-pass the charge (to avoid de-valuing the asset)

Likely not quite on point, but in the ballpark perhaps. Not quite sure what they mean by ''group'' in this context.

Ron

From: Gadi Mayman
Sent: March-16-17 16:42
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>
Cc: Christina Zhang <Christina.Zhang@ofina.on.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: FW: Rate Mitigation Implementation

FYI

From: Katona, Keley (ENERGY) [mailto:Keley.Katona@ontario.ca]
Sent: Thursday, March 16, 2017 2:33 PM
To: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Subject: Rate Mitigation Implementation

Hi Gadi,
Per your discussion with the Deputy, we'll be adding you to our weekly rate mitigation implementation meetings. Attached, for reference, is the material from this week's meeting.
Keley

Keley Katona | Director of Operations
Deputy Minister's Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca
4th Floor, Hearst Block, 900 Bay Street

From: Ronald Kwan
To: John Kim
Cc: Emily Kerr
Subject: RE: Rate Mitigation for small and medium size business.
Date: Tuesday, March 07, 2017 7:06:38 PM

Hi John,

Tomorrow morning is fine. No rush for today.

Thanks,
Ron

-----Original Message-----
From: John Kim
Sent: March-07-17 19:05
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Emily Kerr <Emily.Kerr@ofina.on.ca>
Subject: Re: Rate Mitigation for small and medium size business.

I can do it if tomorrow am is okay with you.

> On Mar 7, 2017, at 6:21 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:
>
> Hi,
>
> Would one of you reach out to Daniel Cayley on the kinds of options the working group would be looking at, and if "tax base" means specific tax measures only, or more broadly to mean "government-funded".
>
> Thanks,
> Ron
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: March-07-17 18:01
> To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>
> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
> Subject: RE: Rate Mitigation for small and medium size business.
>
> Hi,
>
> Energy was charged with exploring different rate mitigation for small and medium businesses. But the last draft Minute that I saw did not specify what kind of measures to explore, tax or otherwise.
>
> And when they say "tax base", that wording sometimes just means an option that is government funded, not a specific tax measure.
>
> Has the DMO been looped in, as the Deputy was in the room for the Cabinet discussion, and there may have been specific ideas raised. I was not in the room.
>
> Gadi was in the room too, so looping him in.
>
> Ron
>

> -----Original Message-----
> From: Subrahmanyan, Sriram (MOF) [mailto:Sriram.Subrahmanyan@ontario.ca]
> Sent: March-07-17 17:07
> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>
> Subject: Fw: Rate Mitigation for small and medium size business.
>
> Hi, Ron. See below. I assume Energy was tasked to do this in the minute? Btw, our lead would be Colin, not Rob. This is a tax credit.
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Howe, Jyllian (MOF) <Jyllian.Howe@ontario.ca>
> Sent: Tuesday, March 7, 2017 4:58 PM
> To: Subrahmanyan, Sriram (MOF)
> Subject: FW: Rate Mitigation for small and medium size business.
>
>
> Ministry of Energy is tasked with developing additional rate mitigation for small and medium size business and are starting a working group. Under consideration is using the tax base and they would like our participation. They've reached out to Rob.
>
> Is this something we are interested in participating in?
>
> From: Lewis, Robin (MOF)
> Sent: March 7, 2017 1:21 PM
> To: Howe, Jyllian (MOF)
> Cc: Langleben, Ann (MOF)
> Subject: FW: Rate Mitigation for small and medium size business.
>
> Jyllian,
>
> M of Energy has asked us to participate in a working group respecting the above.
>
> Ann wants Sriram's approval.
>
> Regards,
>
> Rob
>
> From: Langleben, Ann (MOF)
> Sent: March 7, 2017 1:18 PM
> To: Lewis, Robin (MOF)
> Cc: Klassen, Daniela (MOF); Winfield, Lloyd (MOF)
> Subject: Re: Rate Mitigation for small and medium size business.
>
> Ask them to go through Jyllian in the ADMO. We need our ADM to be on side.
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Lewis, Robin (MOF)
> Sent: Tuesday, March 7, 2017 1:07 PM
> To: Langleben, Ann (MOF)
> Cc: Klassen, Daniela (MOF); Winfield, Lloyd (MOF)
> Subject: Rate Mitigation for small and medium size business.
>
>
> Ann,
>

> I received a call from Daniel Cayley from MoE. Energy is tasked with developing additional rate mitigation for small and medium size business and are starting a working group.
>
> Under consideration is using the tax base and they would like our participation.
>
> Would you like tax design to accept the assignment?
>
> Regards,
>
> Rob
>
>
> Rob Lewis|Legislation Design| Corporate & Commodity Taxation Branch|Ministry of Finance robin.lewis@ontario.ca<mailto:robin.lewis@ontario.ca> |416.212.6163 |95 Grosvenor St, 2nd Fl. Toronto, ON M7A 1Z1
>
> This e-mail and any attachments are confidential, may be privileged and/or exempt from disclosure, and are only for the use of the intended recipients. Distribution, review, dissemination or copying of this communication by anyone other than its intended recipients is strictly prohibited. If you have received this communication in error, please notify the sender immediately by return e-mail and delete the copy you have received. Thank you.
>

From: Bruno Amara
To: John Kim
Subject: RE: Rate Mitigation
Date: Friday, March 17, 2017 2:11:09 PM

Hi John

Looks fine to me. My only thought as I read through that was the items under #5) I.e., set this, fix that, cap this. My brain is not that nimble, but I think not all of those items would be independently determined, but perhaps more importantly that market conditions assumed could turn out differently and result in some of those parameters changing. I'm thinking particularly of "fix the date until which rate payers receive a discount for GA refinancing". Costs forecast changes could change that right?

Bruno

From: John Kim
Sent: Friday, March 17, 2017 1:53 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Rate Mitigation

Pls. have a look to see if any comments.

John.

From: Ronald Kwan
Sent: Friday, March 17, 2017 1:46 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: FW: Rate Mitigation

Hi John, Emily,

FYI. Any comments?

Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: March-17-17 13:40
To: David McLean (MOF) <David.McLean@ontario.ca>
Cc: Nancy Kennedy (MOHLTC) <Nancy.Kennedy@ontario.ca>; Gadi Mayman <Gadi.Mayman@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: Rate Mitigation

Hi Dave,

Please see the following summary of this week's rate mitigation update discussion:

GA Financing

OPG

- RBC, CIBC, Goldman have been approached to act as leads for securitization (both for Canada and US). Terms have not yet been finalized
- Sub-committee meetings are starting up, including facilitating the required equity injections from the Province
- Bankers have suggested timelines are aggressive
- OPG likely to establish the financing in the Fall but will have bridge facilities in place in order to accommodate financing in the interim period.
- The idea is not to go to market each month, but potentially on a quarterly basis. Short term debt would accumulate monthly (the bridge facilities mentioned above would help accommodate this) and then move to longer term borrowing financed via the quarterly offerings.
- Each time OPG goes to market the asset would be re-sized and associated debt would all be considered a single tranche.
- At this point the thinking is that all three credit agencies would rate the debt (Moody's, S&P, Fitch)
- OPG highlighted some of the information that they'll require over the coming weeks/months:
    - Customer data: Rating agencies will have a particular focus on 10% of customer bill and will require information to assess this
    - Equity injection: Might require a second class of shares, redeemable because cash coming back on paydown
    - Mechanism: Seeking clarity on what the process beyond year 4 will be with respect to determining the asset / liability
    - OFA Involvement: OPG suggested that it may be difficult for OFA to purchase large parts of the 51% outside financing, as it may not meet accounting tests for independence. However, OPG is investigating whether OFA could act as a lead order in order to drive interest costs down.
- OPG Board has chartered a special committee of the Board to advise on the structure. For now OPG is comfortable devoting time and resources on the basis of the Premier's announcement. The company may require a Shareholder Declaration / Resolution in order to advance the discussion (likely in April)
    - OPG will work with the Province to carefully worded the Dec./Res. to ensure the Board maintains authority to proceed. Ultimately the Board needs to ensure the proposal they make is in the best interest of OPG based on its credit rating, governance and business interests
    - The board may need enhanced indemnification for this initiative which the Province is considering

IESO

- Conversations on technical process are underway (Ministry, OPG etc.)
- KPMG requires draft legislation before it can provide an opinion on the regulatory construct but this is still in the early stages. IESO will discuss the process and timelines for this opinion.

OEB

- Require a letter from Minister to allow incorporation of GA Smoothing into May 1 RPP. OEB is developing a first draft.
- A news release is planned for the Thursday following Easter announcing new RPP rates.

Blakes

- Blakes provided a summary of legislative changes (see document attached)
- One item in particular that they are thinking through is the impact of consumers exiting the system which would put pressure on the value of the asset. Consideration could be given to a true-up mechanism to ensure the cost is covered or potentially an exit charge

Affordability Fund:

- This initiative is moving quickly with documents to be finalized and executed next week and flow of funds shortly thereafter
- Computershare will act as the initial trustee and the trust documents will set out a process for selecting experts to act as Trustees and guide the flow of funds. Considering Trustees from areas including LDCs, social service agencies, staff level etc.

RRRP, OESP, First Nations Rate:

- Work is proceeding with three separate sub-committees but there is a lot of cross over on all three workstreams
- LDC working groups kicked off last week where they focused on bill presentation and implementation
- OESP:
    - The posting is up for comment (comment period ends April 8th)
    - OESP be removed from the bill at the same time GA financing is implemented (May 1st) pending regulation amendment process
    - Move toward 100% via automatic enrollment is more complex so may not be implemented for May 1st. ENE is working with MCSS to deploy a process similar to ODSP and other low income programs but a Federal exemption is required which conversation with the CRA are ongoing
- RRRP:
    - RRRP cannot be removed from the bill until the legislation is passed
    - Conversations have started but the main work for LDCs will be implementing billing system changes and OEB can help identify who may require IT assistance
- FN Rate:
    - Chiefs of Ontario are interested in participating in a working group
    - Eligibility will be geographically based (all on reserve residents). This may capture some non-First Nations residents. However this should be limited, and would be

extremely complicated to avoid.

ICI:

- LRC on April 11th with a May implementation date
- Will begin outreach to Chamber of Commerce (OCC) and consider others (CME for example)
- ENE will begin to sit down with other Ministries to discuss broader measures for small and medium businesses
- ENE has met with LDCs to ensure they are aware of changes and EDA has flagged that clarity is needed for some small manufactures to ensure conservation incentive remains

Thanks,
Scott

From:	Gavin He
To:	John Kim; Emily Kerr
Subject:	RE: Rate Mitigation
Date:	Tuesday, March 21, 2017 6:20:19 PM

Hi John/Emily,

Just to follow up on Ron email below. Do you have any comments for Ron's consideration?

Thanks,
Gavin He

From: Ronald Kwan
Sent: Friday, March 17, 2017 1:46 PM
To: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
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    - The posting is up for comment (comment period ends April 8th)
    - OESP be removed from the bill at the same time GA financing is implemented (May 1st) pending regulation amendment process
    - Move toward 100% via automatic enrollment is more complex so may not be implemented for May 1st. ENE is working with MCSS to deploy a process similar to ODSP and other low income programs but a Federal exemption is required which conversation with the CRA are ongoing
- RRRP:
    - RRRP cannot be removed from the bill until the legislation is passed
    - Conversations have started but the main work for LDCs will be implementing billing system changes and OEB can help identify who may require IT assistance
- FN Rate:
    - Chiefs of Ontario are interested in participating in a working group
    - Eligibility will be geographically based (all on reserve residents). This may capture some non-First Nations residents. However this should be limited, and would be extremely complicated to avoid.

ICI:

- LRC on April 11th with a May implementation date
- Will begin outreach to Chamber of Commerce (OCC) and consider others (CME for example)
- ENE will begin to sit down with other Ministries to discuss broader measures for small and medium businesses
- ENE has met with LDCs to ensure they are aware of changes and EDA has flagged that clarity is needed for some small manufactures to ensure conservation incentive remains

Thanks,
Scott

From: John Kim
To: Robin Lewis (MOF)
Subject: RE: SPV
Date: Wednesday, April 26, 2017 8:08:15 AM

Ok, thanks Rob.

One question. I was wondering about a comment I heard – something along the lines of "specific earning streams from the trust".

Why would Trust differentiate between different earning streams?

From: Lewis, Robin (MOF) [mailto:Robin.Lewis@ontario.ca]
Sent: Wednesday, April 26, 2017 8:06 AM
To: John Kim <John.Kim@ofina.on.ca>
Subject: SPV

John,

There were no materials for yesterday's meeting. You may be aware that OPG is seeking a PILs exemption for certain income generated by the SPV.

At this point, we are unaware of any reason to exempt the income from the SPV which is anticipated to be small.

Regards,

Rob

Rob Lewis|Legislation Design| Corporate & Commodity Taxation Branch|Ministry of Finance
robin.lewis@ontario.ca |416.212.6163 |95 Grosvenor St, 2nd Fl. Toronto, ON M7A 1Z1

This e-mail and any attachments are confidential, may be privileged and/or exempt from disclosure, and are only for the use of the intended recipients. Distribution, review, dissemination or copying of this communication by anyone other than its intended recipients is strictly prohibited. If you have received this communication in error, please notify the sender immediately by return e-mail and delete the copy you have received. Thank you.

From: Bruno Amara
To: John Kim
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase
Date: Thursday, March 09, 2017 5:47:07 PM

OK, I missed this email earlier.

From: John Kim
Sent: Thursday, March 09, 2017 3:17 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Subcommittee - Equity Injection/OPG Share purchase

Fyi, and a note is requested on how the equity injection would work.

Maybe we can combine the discussion with Adam but the following are the considerations:

Given the equity injection need of 44% to OPG, we kind of need to figure out how to do this. Likely, a TB submission for the injection would be required. Given the settlement at IESO would be on a monthly basis, how to facilitate the proportionate 44% equity injection would need to be figured out. What would be the framework and or delegated authority.

It'd need to issue shares to the Province.

Any tax implications?

Given the monthly injection (potentially), do we contribute cash in advance or as needed? (Do we care about borrowing frequently – CMD's concern, in my view)

What other areas do we need to work with? TBS OPCD?

Could we utilize convertible loan of some sort?

This injection would need to be classified as an operating asset.

Do we have OPG pay dividends during the period of capitalizing interest?

The 2% or rate of inflation increase, how does this play into the whole project?

From: Ronald Kwan
Sent: Thursday, March 09, 2017 1:59 PM
To: 'LEE John -TREASURY' <john.s.lee@opg.com>
Cc: 'GRECO Clara -LAWDIV' <clara.greco@opg.com>; John Kim <John.Kim@ofina.on.ca>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Oops, thanks John.

Ron

From: Ronald Kwan
Sent: March-09-17 13:51
To: 'LEE John -TREASURY' <john.s.lee@opg.com>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
Cc: CROZZOLI Carlo -CBUSDEV&STRT <carlo.crozzoli@opg.com>; GRECO Clara -LAWDIV <clara.greco@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; HAHN PARKER Janet -TREASURY <j.hahnparker@opg.com>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

Hi John,

I'm cc'ing John Kim on this email chain, as he can be Clara Greco's contact on this from my team.

Thanks,
Ron

From: LEE John -TREASURY [mailto:john.s.lee@opg.com]
Sent: March-09-17 13:29
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
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Subject: Subcommittee - Equity Injection/OPG Share purchase

Steen/Mike/Ron:

Further to our call, can you identify a member from your team who can work with OPG (Clara Greco) on this joint initiative to establish a process to facilitate the equity injection requirements necessary to support the GA deferral financing.

Thanks

John

THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me

by return e-mail and delete this message from your system. Ontario Power Generation Inc.

From:	Ronald Kwan
To:	"LEE John -TREASURY"
Cc:	"GRECO Clara -LAWDIV"; John Kim
Subject:	RE: Subcommittee - Equity Injection/OPG Share purchase
Date:	Thursday, March 09, 2017 1:58:42 PM

Oops, thanks John.

Ron

From: Ronald Kwan
Sent: March-09-17 13:51
To: 'LEE John -TREASURY' <john.s.lee@opg.com>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
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From: John Kim
To: Bruno Amara
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase
Date: Thursday, March 09, 2017 6:02:45 PM

No worries, I did ask Ron about the benchmark comment he made to me and Francisco earlier.

He meant that the legislation or regulation would say Canada plus a certain commercial spread and with that as the benchmark, if OPG is able to borrow at a lower cost of funds, it would make a profit.

From: Bruno Amara
Sent: Thursday, March 09, 2017 5:47 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Subcommittee - Equity Injection/OPG Share purchase

OK, I missed this email earlier.

From: John Kim
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To: Bruno Amara <Bruno.Amara@ofina.on.ca>
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To: 'LEE John -TREASURY' <john.s.lee@opg.com>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Steen Hume (CAB) <Steen.Hume@ontario.ca>
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financing.

Thanks

John

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From: Francisco Chinchon
To: John Kim
Cc: Gavin He; Bruno Amara; Adam Prokop; Salman Qadir
Subject: RE: TDS_v1.docx
Date: Friday, April 21, 2017 9:57:06 AM
Attachments: TDS_v1_SIFB_markup.docx

Hi,

A few suggestions. Given the lack of certainty on if this will be equity or not I changed the wording to capital contributions.

Thanks,

Francisco

From: Salman Qadir
Sent: Friday, April 21, 2017 9:24 AM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: TDS_v1.docx

Hi John,

One comment could be that all options considered and evaluated should ensure OPG remains a GBE and consideration be given to the fact that OPG and the Province follow different accounting standards?

Salman

From: John Kim
Sent: Friday, April 21, 2017 9:07 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: TDS_v1.docx

Comments welcome but in the next 30 min pls.

GA FINANCING – TD'S ADVICE SOUGHT ON EQUITY INJECTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide capital ~~equity injection~~ to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

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Context

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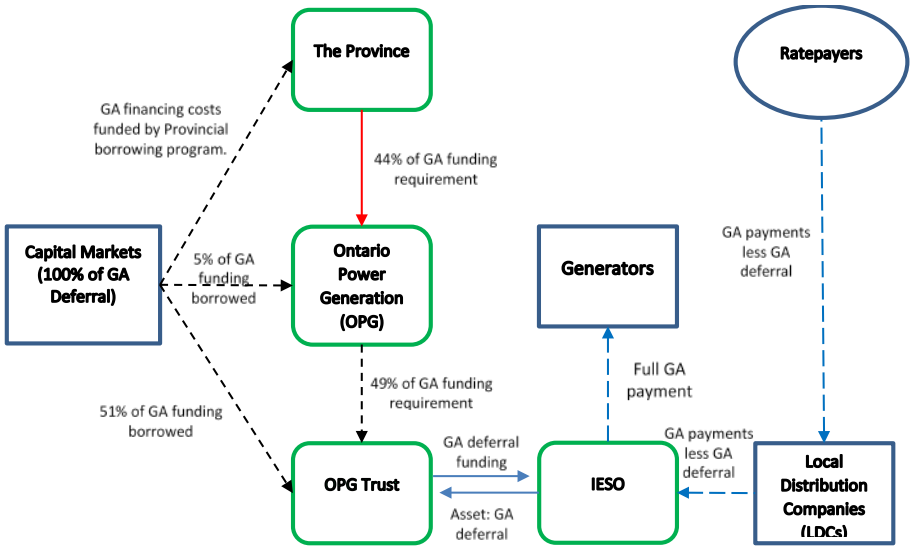
The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its capital

contributions ~~equity injection~~ through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the capital contributions ~~equity injection~~ from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the capital ~~money~~ provided to OPG no matter if this is done as common equity or through other mechanisms, including the potential used of preferred shares.~~as 'equity injection' for the purpose of the GA deferral proposal~~.
- Under the current state of discussion, t~~T~~he capital contribution ~~equity injection~~ w~~ould~~~~ill~~ be provided on a monthly/quarterly basis to OPG by the Province.
- The capital contribution ~~equity injection~~ results in the Province, the sole shareholder of OPG receiving common shares, or another type of security, from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cashflow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the capital contribution ~~equity injection~~ the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.
    - ~~OPG c~~Could~~an~~ the structure involve issuing~~e~~ ~~preference~~ preferred shares ~~again~~ with some ~~kind~~ form of optionality for repayment. Preferred~~ence~~ shares, especially those with a specified annual dividend schedule could potentially~~will~~ ensure that the Province remain~~s~~ whole in terms of the incremental interest costs it would incur~~s~~ on the ~~equity injection~~capital contribution.
- Other factors to be considered for repayment:

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Commented [JK1]: I suggest we delete this and have TD opine on options.

- Should the senior and subordinated debt be ranked as the same and if so does this impact market access
- Should the senior debt be repaid first or should repayment be on a pari-passu basis
- OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
- Eventually, the Province would need to have a discussion with OPG on the path forward.

Commented [JK2]: Not sure if this is needed here.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in being able to recover its capital ~~getting the money back,~~ as stipulated in the GA deferral plan.
- The Province needs to be kept whole with respect to any financial cost that may arise from making and carrying forward the capital contributions.
- For regulatory purposes, there may be an interest in insuring that the capital contributions ~~equity injection is~~are considered a true equity in OPG's capital structure [TBD but still require consideration].
- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].

From: Francisco Chinchon
To: John Kim; Ronald Kwan
Subject: RE: TDS_v2p
Date: Friday, April 21, 2017 11:42:08 AM

I agree, indeed I tried to ask a similar question at the last meeting with CMD staff but the only answer/message I received was that they are very focused on (1) ensuring there is lending in one form or another through the OFA (2) ensuring the Province can get its money back at maturity or when it decides to do so.

I went a step forward and asked/flagged that I don't fully understand why it needs to be through here given they don't seem to believe common equity would work...

Maybe is easier to brainstorm if we find 5 min to discuss later today.

-----Original Message-----
From: John Kim
Sent: Friday, April 21, 2017 11:38 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: TDS_v2p

I think the sub-text is CMD's and maybe FTD's desire to spell out making sure getting its money back.

Any other views, Francisco?

-----Original Message-----
From: Ronald Kwan
Sent: Friday, April 21, 2017 11:37 AM
To: John Kim <John.Kim@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: TDS_v2p

Hi,

I made a few edits.

That said, as sole shareholder, the risk of equity in OPG is a general one, not specific to the equity for the SPV, so I'm not sure why this is being pursued, unless the concern is providing for if the Province is at some point not the sole shareholder. Is that the sub-text?

Ron

From: John Kim
To: Ronald Kwan; Francisco Chinchon
Subject: RE: TDS_v2p
Date: Friday, April 21, 2017 11:38:22 AM

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Any other views, Francisco?

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From: Ronald Kwan
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Ron

From: John Kim
To: Ronald Kwan; Francisco Chinchon
Subject: RE: TDS_v2p
Date: Friday, April 21, 2017 11:45:03 AM

Thanks, I'm thinking of adding a bullet at the end...

· In order to ensure continued treatment of OPG as a government business enterprise (GBE), the Province would want to avoid the appearance of providing zero or low interest loan.

-----Original Message-----
From: Ronald Kwan
Sent: Friday, April 21, 2017 11:43 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Re: TDS_v2p

Sure.

Let's discuss.

In the meantime, ok to send the markup.

Ron

> On Apr 21, 2017, at 11:42 AM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:
>
> I agree, indeed I tried to ask a similar question at the last meeting with CMD staff but the only answer/message I received was that they are very focused on (1) ensuring there is lending in one form or another through the OFA (2) ensuring the Province can get its money back at maturity or when it decides to do so.
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>
> Ron
>

From:	Gavin He
To:	Bruno Amara; John Kim
Subject:	RE: This is the latest, I think...
Date:	Thursday, April 06, 2017 6:57:31 PM
Attachments:	FHP programs_v2.docx

Hi all,

See attached updated table based on March 1 deck.

Regards,
Gavin He

From: Bruno Amara
Sent: Thursday, April 06, 2017 6:56 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: This is the latest, I think...

To clarify, you're confirming we should update with March 1 submission.

From: John Kim
Sent: Thursday, April 06, 2017 6:51 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: This is the latest, I think...

Ok, just confirmed that the table matched the Feb 22 time stamped version…..so I think it's good to update.

From: Bruno Amara
Sent: April-06-17 6:48 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: This is the latest, I think...

Yes, that's what I have. So I'll revise per that table. And I wont to the status quo enhancement breakdown

---

From: John Kim
Sent: Thursday, April 06, 2017 6:46 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: This is the latest, I think...

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund		200	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**200**	**665**	**753**	**829**	**892**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet

From: John Kim
To: Bruno Amara
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Wednesday, April 12, 2017 1:57:32 PM

Could we have someone (Adam?) take a look pls?

-----Original Message-----
From: Gavin He
Sent: Wednesday, April 12, 2017 12:34 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Importance: High

Hi John/Bruno,

FYI.

Regards,
Gavin He

-----Original Message-----
From: Mansoori, Nina [mailto:nmansoori@torys.com]
Sent: Wednesday, April 12, 2017 12:16 PM
To: WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; James Rehob (ENERGY) <James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com>; Dan Shear (ENERGY) <Dan.Shear@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Michael.Boll@ieso.ca; Feldman, Michael <mfeldman@torys.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; GZacher@stikeman.com; Tim Christie (ENERGY) <Tim.Christie@ontario.ca>; Paul Johnson (ENERGY) <Paul.Johnson3@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Hilary Cox (ENE) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>; 'Smith, Elliot' <ESmith@osler.com>; ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Importance: High

All - please find attached a revised draft of the summary legislation circulated by Blakes on April 10 which reflects consolidated comments from OPG and the dealers (and their respective counsel). Please note that the attached remains subject to the continuing review of OPG and the dealers. We will have printed copies of the blackline available at today's meeting.

Best Regards,

Nina

Nina Mansoori

P. 416.865.7332 | F. 416.865.7380 | 1.800.505.8679

Torys LLP

79 Wellington St. W., 30th Floor, Box 270, TD South Tower

Toronto, Ontario M5K 1N2 Canada | www.torys.com

-----Original Message-----

From: Smith, Elliot [mailto:ESmith@osler.com]

Sent: April-12-17 12:39 AM

To: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Steve,

We have been corresponding with Torys today and are in the process of preparing a consolidated mark-up reflecting comments from the Dealers and OPG, which will also incorporate some of the comments received this evening from the IESO/Stikemans. We will circulate the consolidated mark-up before tomorrow's meeting.

Elliot

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

-----Original Message-----

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Tuesday, April 11, 2017 1:54 PM

To: Smith, Elliot <ESmith@osler.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: Re: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Elliot, in the interest of time, it may make sense for me to walk you through where your items have been addressed. Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086<tel:416-863-3086>

On Apr 11, 2017, at 1:19 PM, Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>> wrote:

Stephen,

This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot

<image002.gif>

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com<mailto:esmith@osler.com>

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

<image003.gif><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.osler.com_&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=LUQKnMzzRUkkrKYgR-TY27HXaVqG9jmUSR9Xzz7GIBM&e= >

<image004.jpg>

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Monday, April 10, 2017 11:16 PM

To: Feldman, Michael <mfeldman@torys.com<mailto:mfeldman@torys.com>>; JACKSON, ADAM <ADAM.JACKSON@blakes.com<mailto:ADAM.JACKSON@blakes.com>>; Peter Hamilton (PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>) <PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>>; LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>; WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>; WILSON, JUDY <JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; Hill, Krista <khill@torys.com<mailto:khill@torys.com>>; Ramchandani, Rima <rramchandani@torys.com<mailto:rramchandani@torys.com>>; Keizer, Charles <ckeizer@torys.com<mailto:ckeizer@torys.com>>; Myers, Jonathan <jmyers@torys.com<mailto:jmyers@torys.com>>; Emes, Aaron <aemes@torys.com<mailto:aemes@torys.com>>; Mansoori, Nina <nmansoori@torys.com<mailto:nmansoori@torys.com>>; Wortsman, Jerald <jwortsman@torys.com<mailto:jwortsman@torys.com>>; Bomhof, Scott <sbomhof@torys.com<mailto:sbomhof@torys.com>>; Estey, Bill <bestey@torys.com<mailto:bestey@torys.com>>; Watson, Gwen <gwatson@torys.com<mailto:gwatson@torys.com>>; James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>; O'Brian, Adam <aobrian@hunton.com<mailto:aobrian@hunton.com>>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com<mailto:MFitzpatrick@hunton.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; VINER, JON <JON.VINER@blakes.com<mailto:JON.VINER@blakes.com>>; Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>>; Sebastiano, Rocco <RSebastiano@osler.com<mailto:RSebastiano@osler.com>>; Michael.Boll@ieso.ca<mailto:Michael.Boll@ieso.ca>; GZacher@stikeman.com<mailto:GZacher@stikeman.com>; aobrian@hunton.com<mailto:aobrian@hunton.com>; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca<mailto:Tim.Christie@ontario.ca>>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca<mailto:Paul.Johnson3@ontario.ca>>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Rehob, James (ENERGY) <James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>; 'Gavin He' <Gavin.He@ofina.on.ca<mailto:Gavin.He@ofina.on.ca>>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca<mailto:Cindy.Veinot@ontario.ca>>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca<mailto:Sarah.Hosick@ontario.ca>>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; kim.marshall@ieso.ca<mailto:kim.marshall@ieso.ca>; 'LEE John -TREASURY' (john.s.lee@opg.com<mailto:john.s.lee@opg.com>) <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca<mailto:Hilary.Cox@ontario.ca>>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>>; Wolff, Michael <Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>>; Holloway, Harold <Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>>; Akman, Steven <Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>>; Manii, David <david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>>; Nevison, Gary <Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086

_____

<image001.gif>

Blake, Cassels & Graydon LLP

199 Bay Street, Suite 4000, Toronto ON M5L 1A9

Tel: 416-863-2400 Fax: 416-863-2653

blakes.com<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=jAgoR5lFYaTp6_PQbs2IisBLKmWn9bWyeRlIvkWNsUs&e= > | Twitter<https://urldefense.proofpoint.com/v2/url?u=http-3A__twitter.com_BlakesLaw_&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=O6o_yMxuqMm6I1jZZF3qiTM3BkPeLTe0ugsZF8tP8Xc&e= > | Unsubscribe<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com_English_Resources_Bulletins_Pages_unsubscribe.aspx&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=RS_9JSWWyDhn2x-I5_2SL-sFL_epKJCrF4kw9ZJvHL4&e= >

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From: Whitfield, Tobias P. (MOF)
To: Ronald Kwan; John Kim
Cc: Gavin He
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Tuesday, April 11, 2017 1:51:27 PM

I have not been invited. I am reviewing the current draft right now, though I am not sure whether this draft increases our role, or if it just helps us to understand the context in which we will likely have a role at the equity injection stage.

Toby

Tobias Whitfield
Counsel, Legal Services Branch
Ministry of Finance
tobias.whitfield@ontario.ca
Phone: 416-325-1456

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 11, 2017 1:22 PM
To: Kim, John (OFA); Whitfield, Tobias P. (MOF)
Cc: He, Gavin (OFA)
Subject: Fw: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi,

FYI. Are either of you invited to tomorrow's meeting?

Ron

From: Smith, Elliot <ESmith@osler.com>
Sent: April 11, 2017 1:19 PM
To: ASHBOURNE, STEPHEN; Feldman, Michael; JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; James Rehob (ENERGY); Alan Hibben; Dan Shear (ENERGY); Carolyn Calwell (MCSS); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY); Sebastiano, Rocco; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Tim Christie (ENERGY); Carolyn Calwell (MCSS); Paul Johnson (ENERGY); Dan Shear (ENERGY); James Rehob (ENERGY); Ronald Kwan; Gavin He; Veinot, Cindy (TBS); Hosick, Sarah (TBS); Scott Nelms (ENERGY); kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com); Hilary Cox (ENE); Hilloowala, Maharukh; Wolff, Michael; Holloway, Harold; Akman, Steven; Manii, David; Nevison, Gary
Cc: Niehaus, Katrina; 'Maciel, Andrew'; Persaud, Donnie - Debt Capital Markets; Adalja, Sunil; Alvi, Shariq; 'Benaiah, Ian'; Fullerton, Rick; Collins, Patrick J; Mullen, Max M.; Delaney, Brian; Hong,

Yoomin; Raman, Akila; Fullerton, Rick; Smith, Elliot; King, Richard; Innes, Michael; Milligan, Peter
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Elliot

OSLER

Elliot Smith
Partner - Energy, Construction & Infrastructure

416.862.6435 DIRECT
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esmith@osler.com

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Box 50, 1 First Canadian Place
Toronto, Ontario, Canada M5X 1B8

osler.com
[osler.com]

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]
Sent: Monday, April 10, 2017 11:16 PM
To: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; VINER, JON <JON.VINER@blakes.com>;

Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Smith, Elliot <ESmith@osler.com>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Rehob, James (ENERGY) <James.Rehob@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; 'Gavin He' <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>; kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com) <john.s.lee@opg.com>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

———————————

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
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From:	John Kim
To:	Ronald Kwan; Tobias P. Whitfield (MOF)
Cc:	Gavin He
Subject:	RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Tuesday, April 11, 2017 1:45:09 PM

Hi Ron,

I'm not invited.

I wouldn't mind being included on an ongoing basis.

John

From: Ronald Kwan
Sent: Tuesday, April 11, 2017 1:22 PM
To: John Kim <John.Kim@ofina.on.ca>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi,

FYI. Are either of you invited to tomorrow's meeting?

Ron

From: Smith, Elliot <ESmith@osler.com>
Sent: April 11, 2017 1:19 PM
To: ASHBOURNE, STEPHEN; Feldman, Michael; JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; James Rehob (ENERGY); Alan Hibben; Dan Shear (ENERGY); Carolyn Calwell (MCSS); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY); Sebastiano, Rocco; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Tim Christie (ENERGY); Carolyn Calwell (MCSS); Paul Johnson (ENERGY); Dan Shear (ENERGY); James Rehob (ENERGY); Ronald Kwan; Gavin He; Veinot, Cindy (TBS); Hosick, Sarah (TBS); Scott Nelms (ENERGY); kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com); Hilary Cox (ENE); Hilloowala, Maharukh; Wolff, Michael; Holloway, Harold; Akman, Steven; Manii, David; Nevison, Gary
Cc: Niehaus, Katrina; 'Maciel, Andrew'; Persaud, Donnie - Debt Capital Markets; Adalja, Sunil; Alvi, Shariq; 'Benaiah, Ian'; Fullerton, Rick; Collins, Patrick J; Mullen, Max M.; Delaney, Brian; Hong, Yoomin; Raman, Akila; Fullerton, Rick; Smith, Elliot; King, Richard; Innes, Michael; Milligan, Peter
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Stephen,
This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot

OSLER

Elliot Smith
Partner - Energy, Construction & Infrastructure

416.862.6435 DIRECT
416.862.6666 FACSIMILE
esmith@osler.com

Osler, Hoskin & Harcourt LLP
Box 50, 1 First Canadian Place
Toronto, Ontario, Canada M5X 1B8

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Sent: Monday, April 10, 2017 11:16 PM
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<RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; aobrian@hunton.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Rehob, James (ENERGY) <James.Rehob@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; 'Gavin He' <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca>; kim.marshall@ieso.ca; 'LEE John -TREASURY' (john.s.lee@opg.com) <john.s.lee@opg.com>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

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Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

———————————

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From:	Adam Prokop
To:	John Kim; Bruno Amara; Shajee Kathirgamanathan; Salman Qadir
Cc:	Gavin He
Subject:	RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date:	Tuesday, April 11, 2017 10:15:28 AM

Thanks John,

The legislation still does not seem to have a lot of the main ideas finalized.

- Look at page 24, footnote 21 – "*Under consideration, including the dealers' request for a "servicer guarantee" and a "contractual guarantee" to address a "Change of Law" or if all or a portion of the legislation is ultra vires, requiring (at the lenders option), the Province to pay principal and interest on the outstanding debt until maturity or payout the entire debt including any make-wholes".* The provincial guarantee is still being considered.
- Schedule 3 (Financing Plan – page 29) relates to the equity injection but just provides "a guideline as to what a Financing Plan should address".
- Looks like they are going the separate act route and not including the plan in the Electricity Act.

Kind regards,

Adam Prokop

From: John Kim
Sent: Tuesday, April 11, 2017 8:03 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Pls. Have a look. Not necessarily our part but anything related to the equity injection, if any, would be primary focus.

Begin forwarded message:

> **From:** "Gavin He" <Gavin.He@ofina.on.ca>
> **To:** "John Kim" <John.Kim@ofina.on.ca>
> **Cc:** "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>
> **Subject: Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)**
>
> Hi John,
>
> Please find attached the revised draft legislative summary for your review.
>
> Please note that any comments are due by 2:00 p.m. tomorrow.

Regards,
Gavin He

Begin forwarded message:

> **From:** "ASHBOURNE, STEPHEN" <STEPHEN.ASHBOURNE@blakes.com>
> **To:** "Feldman, Michael" <mfeldman@torys.com>, "JACKSON, ADAM" <ADAM.JACKSON@blakes.com>, "Peter Hamilton (PHamilton@stikeman.com)" <PHamilton@stikeman.com>, "LEE John -TREASURY" <john.s.lee@opg.com>, "RYFA Ken -TREASURY" <ken.ryfa@opg.com>, "WONG Leslie -LAWDIV" <leslie.wong@opg.com>, "MCAULEY Tyler -LAWDIV" <tyler.mcauley@opg.com>, "WILSON, JUDY" <JUDY.WILSON@blakes.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "Hill, Krista" <khill@torys.com>, "Ramchandani, Rima" <rramchandani@torys.com>, "Keizer, Charles" <ckeizer@torys.com>, "Myers, Jonathan" <jmyers@torys.com>, "Emes, Aaron" <aemes@torys.com>, "Mansoori, Nina" <nmansoori@torys.com>, "Wortsman, Jerald" <jwortsman@torys.com>, "Bomhof, Scott" <sbomhof@torys.com>, "Estey, Bill" <bestey@torys.com>, "Watson, Gwen" <gwatson@torys.com>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Alan Hibben" <alan.hibben@rogers.com>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "O'Brian, Adam" <aobrian@hunton.com>, "Fitzpatrick, Michael F." <MFitzpatrick@hunton.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "VINER, JON" <JON.VINER@blakes.com>, "Brad.Purkis@tdsecurities.com" <Brad.Purkis@tdsecurities.com>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "ESmith@osler.com" <ESmith@osler.com>, "RSebastiano@osler.com" <RSebastiano@osler.com>, "Michael.Boll@ieso.ca" <Michael.Boll@ieso.ca>, "GZacher@stikeman.com" <GZacher@stikeman.com>, "aobrian@hunton.com" <aobrian@hunton.com>, "Tim Christie (ENERGY)" <Tim.Christie@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "Paul Johnson (ENERGY)" <Paul.Johnson3@ontario.ca>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>, "Gavin He" <Gavin.He@ofina.on.ca>, "Veinot, Cindy (TBS)" <Cindy.Veinot@ontario.ca>, "Hosick, Sarah (TBS)" <Sarah.Hosick@ontario.ca>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "kim.marshall@ieso.ca" <kim.marshall@ieso.ca>, "'LEE John -TREASURY' (john.s.lee@opg.com)"

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From: John Kim
To: Gavin He
Cc: Ronald Kwan
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Tuesday, April 11, 2017 8:59:20 AM

Thanks. I've shared with Toby in MOF Legal, as well.

From: Gavin He
Sent: Monday, April 10, 2017 11:38 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: Fwd: "Fair Hydro Act" Legislative Summary (Discussion Draft)

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Please note that any comments are due by 2:00 p.m. tomorrow.

Regards,
Gavin He

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> **To:** "Feldman, Michael" <mfeldman@torys.com>, "JACKSON, ADAM" <ADAM.JACKSON@blakes.com>, "Peter Hamilton (PHamilton@stikeman.com)" <PHamilton@stikeman.com>, "LEE John -TREASURY" <john.s.lee@opg.com>, "RYFA Ken -TREASURY" <ken.ryfa@opg.com>, "WONG Leslie -LAWDIV" <leslie.wong@opg.com>, "MCAULEY Tyler -LAWDIV" <tyler.mcauley@opg.com>, "WILSON, JUDY" <JUDY.WILSON@blakes.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "Hill, Krista" <khill@torys.com>, "Ramchandani, Rima" <rramchandani@torys.com>, "Keizer, Charles" <ckeizer@torys.com>, "Myers, Jonathan" <jmyers@torys.com>, "Emes, Aaron" <aemes@torys.com>, "Mansoori, Nina" <nmansoori@torys.com>, "Wortsman, Jerald" <jwortsman@torys.com>, "Bomhof, Scott" <sbomhof@torys.com>, "Estey, Bill" <bestey@torys.com>, "Watson, Gwen" <gwatson@torys.com>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Alan Hibben" <alan.hibben@rogers.com>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "O'Brian, Adam" <aobrian@hunton.com>, "Fitzpatrick, Michael F." <MFitzpatrick@hunton.com>, "STOKES, BRYSON" <BRYSON.STOKES@blakes.com>, "VINER, JON" <JON.VINER@blakes.com>, "Brad.Purkis@tdsecurities.com" <Brad.Purkis@tdsecurities.com>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>,

"ESmith@osler.com" <ESmith@osler.com>, "RSebastiano@osler.com" <RSebastiano@osler.com>, "Michael.Boll@ieso.ca" <Michael.Boll@ieso.ca>, "GZacher@stikeman.com" <GZacher@stikeman.com>, "aobrian@hunton.com" <aobrian@hunton.com>, "Tim Christie (ENERGY)" <Tim.Christie@ontario.ca>, "Carolyn Calwell (MCSS)" <Carolyn.Calwell@ontario.ca>, "Paul Johnson (ENERGY)" <Paul.Johnson3@ontario.ca>, "Dan Shear (ENERGY)" <Dan.Shear@ontario.ca>, "James Rehob (ENERGY)" <James.Rehob@ontario.ca>, "Ronald Kwan" <Ronald.Kwan@ofina.on.ca>, "Gavin He" <Gavin.He@ofina.on.ca>, "Veinot, Cindy (TBS)" <Cindy.Veinot@ontario.ca>, "Hosick, Sarah (TBS)" <Sarah.Hosick@ontario.ca>, "Scott Nelms (ENERGY)" <Scott.Nelms@ontario.ca>, "kim.marshall@ieso.ca" <kim.marshall@ieso.ca>, "'LEE John -TREASURY' (john.s.lee@opg.com)" <john.s.lee@opg.com>, "Hilary Cox (ENE)" <Hilary.Cox@ontario.ca>, "Hilloowala, Maharukh" <Maharukh.Hilloowala@tdsecurities.com>, "Wolff, Michael" <Michael.Wolff@tdsecurities.com>, "Holloway, Harold" <Harold.Holloway@tdsecurities.com>, "Akman, Steven" <Steven.Akman@tdsecurities.com>, "Manii, David" <david.manii@tdsecurities.com>, "Nevison, Gary" <Gary.Nevison@tdsecurities.com>

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From: Bruno Amara
To: John Kim
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Date: Wednesday, April 12, 2017 1:58:15 PM

Yes, I had forwarded.

-----Original Message-----
From: John Kim
Sent: Wednesday, April 12, 2017 1:58 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Could we have someone (Adam?) take a look pls?

-----Original Message-----
From: Gavin He
Sent: Wednesday, April 12, 2017 12:34 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: FW: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Importance: High

Hi John/Bruno,

FYI.

Regards,
Gavin He

-----Original Message-----
From: Mansoori, Nina [mailto:nmansoori@torys.com]
Sent: Wednesday, April 12, 2017 12:16 PM
To: WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; James Rehob (ENERGY) <James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com>; Dan Shear (ENERGY) <Dan.Shear@ontario.ca>; Carolyn Calwell (MCSS) <Carolyn.Calwell@ontario.ca>; Michael.Boll@ieso.ca; Feldman, Michael <mfeldman@torys.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; GZacher@stikeman.com; Tim Christie (ENERGY) <Tim.Christie@ontario.ca>; Paul Johnson (ENERGY) <Paul.Johnson3@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Hilary Cox (ENE) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>; 'Smith, Elliot' <ESmith@osler.com>; ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)
Importance: High

All - please find attached a revised draft of the summary legislation circulated by Blakes on April 10 which reflects consolidated comments from OPG and the dealers (and their respective counsel). Please note that the attached remains subject to the continuing review of OPG and the dealers. We will have printed copies of the blackline available at today's meeting.

Best Regards,

Nina

Nina Mansoori

P. 416.865.7332 | F. 416.865.7380 | 1.800.505.8679

Torys LLP

79 Wellington St. W., 30th Floor, Box 270, TD South Tower

Toronto, Ontario M5K 1N2 Canada | www.torys.com

-----Original Message-----

From: Smith, Elliot [mailto:ESmith@osler.com]

Sent: April-12-17 12:39 AM

To: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Steve,

We have been corresponding with Torys today and are in the process of preparing a consolidated mark-up reflecting comments from the Dealers and OPG, which will also incorporate some of the comments received this evening from the IESO/Stikemans. We will circulate the consolidated mark-up before tomorrow's meeting.

Elliot

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

-----Original Message-----

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Tuesday, April 11, 2017 1:54 PM

To: Smith, Elliot <ESmith@osler.com>

Cc: Feldman, Michael <mfeldman@torys.com>; JACKSON, ADAM <ADAM.JACKSON@blakes.com>; Peter Hamilton (PHamilton@stikeman.com) <PHamilton@stikeman.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -TREASURY <ken.ryfa@opg.com>; WONG Leslie -LAWDIV <leslie.wong@opg.com>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com>; WILSON, JUDY <JUDY.WILSON@blakes.com>; STOKES, BRYSON <BRYSON.STOKES@blakes.com>; Hill, Krista <khill@torys.com>; Ramchandani, Rima <rramchandani@torys.com>; Keizer, Charles <ckeizer@torys.com>; Myers, Jonathan <jmyers@torys.com>; Emes, Aaron <aemes@torys.com>; Mansoori, Nina <nmansoori@torys.com>; Wortsman, Jerald <jwortsman@torys.com>; Bomhof, Scott <sbomhof@torys.com>; Estey, Bill <bestey@torys.com>; Watson, Gwen <gwatson@torys.com>; James.Rehob@ontario.ca; Alan Hibben <alan.hibben@rogers.com>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca>; Carolyn.Calwell@ontario.ca; O'Brian, Adam <aobrian@hunton.com>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com>; VINER, JON <JON.VINER@blakes.com>; Brad.Purkis@tdsecurities.com; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca) <Scott.Nelms@ontario.ca>; Sebastiano, Rocco <RSebastiano@osler.com>; Michael.Boll@ieso.ca; GZacher@stikeman.com; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; kim.marshall@ieso.ca; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Holloway, Harold <Harold.Holloway@tdsecurities.com>; Akman, Steven <Steven.Akman@tdsecurities.com>; Manii, David <david.manii@tdsecurities.com>; Nevison, Gary <Gary.Nevison@tdsecurities.com>; Niehaus, Katrina <Katrina.Niehaus@gs.com>; Maciel, Andrew <Andrew.Maciel@cibc.com>; Persaud, Donnie - Debt Capital Markets <Donnie.Persaud@cibc.com>; Adalja, Sunil <Sunil.Adalja@cibc.com>; Alvi, Shariq <Shariq.Alvi@cibc.com>; Benaiah, Ian <ian.benaiah@rbccm.com>; Fullerton, Rick <RFullerton@osler.com>; Collins, Patrick J <Patrick.Collins@gs.com>; Mullen, Max M. <Max.Mullen@gs.com>; Delaney, Brian <Brian.Delaney@gs.com>; Hong, Yoomin <yoomin.hong@gs.com>; Raman, Akila <Akila.Raman@gs.com>; King, Richard <rking@osler.com>; Innes, Michael <MInnes@osler.com>; Milligan, Peter <PMilligan@osler.com>

Subject: Re: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Elliot, in the interest of time, it may make sense for me to walk you through where your items have been addressed. Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086<tel:416-863-3086>

On Apr 11, 2017, at 1:19 PM, Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>> wrote:

Stephen,

This version does not reflect the top issues raised by the Dealers. We are sitting down with the Dealers now working on a comprehensive mark-up that we will send later today, but it will not be ready by 2 PM. We would like to use tomorrow's meeting to discuss the mark-up we are preparing rather than a further revised version that will not reflect our feedback.

Elliot

<image002.gif>

Elliot Smith

Partner - Energy, Construction & Infrastructure

416.862.6435

DIRECT

416.862.6666

FACSIMILE

esmith@osler.com<mailto:esmith@osler.com>

Osler, Hoskin & Harcourt LLP

Box 50, 1 First Canadian Place

Toronto, Ontario, Canada M5X 1B8

<image003.gif><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.osler.com_&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=LUQKnMzzRUkkrKYgR-TY27HXaVqG9jmUSR9Xzz7GIBM&e= >

<image004.jpg>

From: ASHBOURNE, STEPHEN [mailto:STEPHEN.ASHBOURNE@blakes.com]

Sent: Monday, April 10, 2017 11:16 PM

To: Feldman, Michael <mfeldman@torys.com<mailto:mfeldman@torys.com>>; JACKSON, ADAM <ADAM.JACKSON@blakes.com<mailto:ADAM.JACKSON@blakes.com>>; Peter Hamilton (PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>) <PHamilton@stikeman.com<mailto:PHamilton@stikeman.com>>; LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>; WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>; MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>; WILSON, JUDY <JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; Hill, Krista <khill@torys.com<mailto:khill@torys.com>>; Ramchandani, Rima <rramchandani@torys.com<mailto:rramchandani@torys.com>>; Keizer, Charles <ckeizer@torys.com<mailto:ckeizer@torys.com>>; Myers, Jonathan <jmyers@torys.com<mailto:jmyers@torys.com>>; Emes, Aaron <aemes@torys.com<mailto:aemes@torys.com>>; Mansoori, Nina <nmansoori@torys.com<mailto:nmansoori@torys.com>>; Wortsman, Jerald <jwortsman@torys.com<mailto:jwortsman@torys.com>>; Bomhof, Scott <sbomhof@torys.com<mailto:sbomhof@torys.com>>; Estey, Bill <bestey@torys.com<mailto:bestey@torys.com>>; Watson, Gwen <gwatson@torys.com<mailto:gwatson@torys.com>>; James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>; Alan Hibben <alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>>; 'Shear, Dan (ENERGY)' <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>; O'Brian, Adam <aobrian@hunton.com<mailto:aobrian@hunton.com>>; Fitzpatrick, Michael F. <MFitzpatrick@hunton.com<mailto:MFitzpatrick@hunton.com>>; STOKES, BRYSON <BRYSON.STOKES@blakes.com<mailto:BRYSON.STOKES@blakes.com>>; VINER, JON <JON.VINER@blakes.com<mailto:JON.VINER@blakes.com>>; Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Nelms, Scott (MOF) (Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; Smith, Elliot <ESmith@osler.com<mailto:ESmith@osler.com>>; Sebastiano, Rocco <RSebastiano@osler.com<mailto:RSebastiano@osler.com>>; Michael.Boll@ieso.ca<mailto:Michael.Boll@ieso.ca>; GZacher@stikeman.com<mailto:GZacher@stikeman.com>; aobrian@hunton.com<mailto:aobrian@hunton.com>; Christie, Tim (ENERGY) <Tim.Christie@ontario.ca<mailto:Tim.Christie@ontario.ca>>; Calwell, Carolyn (ENERGY/MEDEI/MRI) <Carolyn.Calwell@ontario.ca<mailto:Carolyn.Calwell@ontario.ca>>; Johnson, Paul (ENERGY/MEDEI/MRI) <Paul.Johnson3@ontario.ca<mailto:Paul.Johnson3@ontario.ca>>; Shear, Dan (ENERGY) <Dan.Shear@ontario.ca<mailto:Dan.Shear@ontario.ca>>; Rehob, James (ENERGY) <James.Rehob@ontario.ca<mailto:James.Rehob@ontario.ca>>; Kwan, Ronald (OFA) <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>; 'Gavin He' <Gavin.He@ofina.on.ca<mailto:Gavin.He@ofina.on.ca>>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca<mailto:Cindy.Veinot@ontario.ca>>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca<mailto:Sarah.Hosick@ontario.ca>>; Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>; kim.marshall@ieso.ca<mailto:kim.marshall@ieso.ca>; 'LEE John -TREASURY' (john.s.lee@opg.com<mailto:john.s.lee@opg.com>) <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>; Cox, Hilary (ENERGY) <Hilary.Cox@ontario.ca<mailto:Hilary.Cox@ontario.ca>>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>>; Wolff, Michael <Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>>; Holloway, Harold <Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>>; Akman, Steven <Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>>; Manii, David <david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>>; Nevison, Gary <Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>>

Subject: RE: "Fair Hydro Act" Legislative Summary (Discussion Draft)

Hi. Here is a revised draft of the legislative summary, for your consideration. Please provide your comments at your earliest opportunity. We will reflect comments received by 2ET tomorrow (Tuesday) in a further group circulation, for discussion on Wednesday. Regards, Steve

Stephen R. Ashbourne

Partner

stephen.ashbourne@blakes.com<mailto:stephen.ashbourne@blakes.com>

Dir: 416-863-3086

_____

<image001.gif>

Blake, Cassels & Graydon LLP

199 Bay Street, Suite 4000, Toronto ON M5L 1A9

Tel: 416-863-2400 Fax: 416-863-2653

blakes.com<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=jAgoR5lFYaTp6_PQbs2IisBLKmWn9bWyeRlIvkWNsUs&e= > | Twitter<https://urldefense.proofpoint.com/v2/url?u=http-3A__twitter.com_BlakesLaw_&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=O6o_yMxuqMm6I1jZZF3qiTM3BkPeLTe0ugsZF8tP8Xc&e= > | Unsubscribe<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blakes.com_English_Resources_Bulletins_Pages_unsubscribe.aspx&d=DwIGaQ&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=k1eG93NizPqIO8TAEWxd6qhUsjb3vSbnr1Bps4IeXtQ&m=RUZpq-pj4axsqok6RWlfziXIQH2Nb5z8DCr4TtetlJU&s=RS_9JSWWyDhn2x-I5_2SL-sFL_epKJCrF4kw9ZJvHL4&e= >

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From: Shajee Kathirgamanathan
To: Gavin He; Adam Prokop; Bruno Amara
Cc: John Kim
Subject: RE: "Fair" Legislation (Discussion Draft)
Date: Friday, April 07, 2017 1:43:58 PM

Thanks Gavin.

Saved here for future reference: S:\Users\CEF\Hydro 2017\Electricity Prices\Mitigation Proposals\Debt Financing the GA\GA Structure\Legislation\Reference

Shajee Kathirgamanathan
Office: 416-325-1402 | Mobile: 647-294-3359
shajee.kathirgamanathan@ofina.on.ca

From: Gavin He
Sent: Friday, April 07, 2017 11:07 AM
To: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: FW: "Fair" Legislation (Discussion Draft)

Hi Team,

Please find attached the draft legislation for FHP.

Adam – John would the summary note to be updated based on this draft, would you be able to work on that?

Thanks,
Gavin He

From: Calwell, Carolyn (ENERGY/MEDEI/MRI) [mailto:Carolyn.Calwell@ontario.ca]
Sent: Friday, April 07, 2017 10:30 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Joseph Pau (MEDTE/MRI) <Joseph.Pau@ontario.ca>
Subject: Fw: "Fair" Legislation (Discussion Draft)

Here is the most current mark up

From: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Sent: Friday, April 7, 2017 1:22 AM
To: Feldman, Michael

Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; Rehob, James (ENERGY); Alan Hibben; Shear, Dan (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON
Subject: "Fair" Legislation (Discussion Draft)

Thanks for your comments, Michael. The attached version picks up many of your, Peter's and H&W's comments. In some cases it defers consideration, pending dealer input (such as your suggestion of tracking individual, standalone Regulatory Assets per transaction; delinking the investors from the LDCs, in favour of having IESO be the main servicer; and deleting some of the US precedent language). The regulatory input included in your mark-up was particularly helpful, although not easily dealt with tonight without the Province's input, so many of those points have simply been brought forward with additional footnotes for now. The manner and extent of delegations (primarily the Financing Plan and the Fair Allocation Plan), the nature of OEB review and regulatory actions, the scope of the undertaking and other similar issues, are still under consideration by MOE. Your comments to the effect that nothing can affect a funding obligation once incurred were referenced, as I think that is a pervasive and correct idea. The ultimate location of provisions (Part of the Electricity Act; new Act; Regulations) is still under consideration – for now it's all in this document to facilitate this group review. Finally, there are a number of "validity" type points, which arose in your mark-up and which we are still thinking about. We can discuss those further in the morning. Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

———————————

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
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From: Feldman, Michael [mailto:mfeldman@torys.com]
Sent: Thursday, April 06, 2017 4:26 PM
To: ASHBOURNE, STEPHEN
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Feldman, Michael; Watson, Gwen; James.Rehob@ontario.ca; Alan Hibben; 'Shear, Dan (ENERGY)'; Carolyn.Calwell@ontario.ca; O'Brian, Adam; Fitzpatrick, Michael F.

Subject: Torys Comments on Blakes Draft Legislation

All,

I am attaching our comments on the last version of the draft legislation sent to us by Blakes. Both a clean and blacklined version are attached.

This is being distributed to OPG at the same time as everyone else and so remains subject to their comments as this is very much a work in process.

We also just received comments from Hunton & Williams but in the interests of time we have not been able to include those in our mark up, but expect to be in a position to raise any of their big issues at our meeting tomorrow. Also, I will send their comments separately to Blakes.

Regards,

Michael K. Feldman

P. 416.865.7513 | F. 416.865.7380 | 1.800.505.8679
79 Wellington St. W., 30th Floor, Box 270, TD South Tower
Toronto, Ontario M5K 1N2 Canada | www.torys.com

TORYS LLP

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From:	Francisco Chinchon
To:	John Kim; Bruno Amara
Cc:	Darren Scanlan
Subject:	RE: conference call
Date:	Wednesday, March 22, 2017 9:46:34 AM

ok

From: John Kim
Sent: Wednesday, March 22, 2017 9:46 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: RE: conference call

I tried to book the ADM boardroom but it's booked so will come by Bruno's office.

John

From: Bruno Amara
Sent: Tuesday, March 21, 2017 12:11 PM
To: John Kim <John.Kim@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>
Subject: conference call

Hi,

Per our discussion, I just spoke to Felix, I'll set up a conference call for tomorrow morning to go review the appropriation issue for GA financing. Francisco, given the timing, it would be helpful for you and/or Darren to sit in to make sure TBS has a much info as possible to prepare for whatever they need to do.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489

Email: bruno.amara@ofina.on.ca

From: Francisco Chinchon
To: John Kim
Cc: Darren Scanlan
Subject: RE: follow up from call - OPG GA
Date: Friday, March 24, 2017 10:41:12 AM

Hi John,

Just two:

1. Not sure why future BV is relevant at this point. Future BV of OPG shares would be a function of historic carrying costs, net income and dividends so not sure we need to go there at this point. Transactions between the Province and OPG have been deemed as related party transactions by OPCD so in absence of a specific rule or change in policy I'm not sure we would have to account for FMV. Also, given the Province is not taxable it should be a non-issue.

2. I'm not sure why Kaitlin thinks that OPG shares are in Energy's books (she is saying ENE holds the shares). If you check page 504 (Vol 1, 4-2) you will see that the initial $5.1B investment in OPG is under MOF. Furthermore, under the new reporting structure I understand the accountability of OPG is now with MOF although from a legal perspective the Minister of Energy remains as the sole shareholder.

Thanks,

Francisco

From: John Kim
Sent: Friday, March 24, 2017 10:19 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

Any comments?

From: John Psinas
Sent: Friday, March 24, 2017 10:15 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Bruno Amara (MOF)
Cc: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

Regarding this statement

On the value of the shares-My understanding is it doesn't matter, but for simplicity I think we should keep it the same as the current shares unless anyone raises benefits/considerations otherwise

If the new shares will have a retractable/redeemable option, doesn't that option have a value to it, in addition to the $20 BV? If the equity injection were to happen every year at different amounts, a valuation of that option will have to be calculated, which will in turn revise the total BV/per share.

The value of the shares doesn't matter now, but in the future, if we were to sell the shares to the public, we would need to calculate BV in order to calculate the gain/loss. Will have to get some documentation from 20 years ago on how $20 was derived in the first place.

Thanks.

--John

416-325-8072

From: Carlos Yep
Sent: Thursday, March 23, 2017 4:26 PM
To: Mike Manning <Mike.Manning@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>
Subject: FW: follow up from call - OPG GA

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, March 23, 2017 1:37 PM
To: John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Revised version. Everything in here is up for discussion, I just wanted to share a straw man for people to react to.

Key changes relative to the last version:

- I've positioned as an ENE TB approval/appropriation request (though I haven't actually run this by ENE yet….)– they already have an operating asset, and hold the current OPG shares so I think any new shares would be held in the same place. I'm thinking about it similar to the equity injection that was done for H1 departure tax payment (ENE booked it but OFA actually flowed the funds). I've embedded within the OPG BP process for simplicity but if you think it should be on a separate track I'm happy to explore that.
- On the value of the shares-My understanding is it doesn't matter, but for simplicity I think we should keep it the same as the current shares unless anyone raises

benefits/considerations otherwise

Realise you guys are still thinking this through, but if your schedule permits It would be helpful if we could regroup today/tomorrow on this so I can hear what you guys are considering and chat next steps

Kaitlin

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 3:38 PM
To: Yep, Carlos (OFA); Montgomery, Kaitlin (MOF); Bruno Amara
Subject: RE: follow up from call

And in this working group, could we not reference the OEFC doing the equity injection pls? I've seen a few documents that refer to the OEFC but if we could avoid that going forward, that'd be appreciated.

John

From: John Kim
Sent: Tuesday, March 21, 2017 3:32 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Hi,

My understanding though it'd be good to check with accountants (assuming OPG accountants) would be that it would not matter given OPG does not have its shares trading. I think there are more technical ways of describing this but will leave at that.

On the diagram, it is my understanding that it'd be the Province.

Thanks,

John

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Subject: RE: follow up from call

Kaitlin,
After the relevant legislation, Provincial approvals, OPG approvals ….. The funding of the Global

→

Adjustment equity injection, will have a line on the Financing Table that feeds the Ontario Budget and will then be incorporated on the Long Term Borrowing requirements for the Province.

-We are flexible on working with OPG on setting the required advance notice period that OPG needs to provide the Province (Energy, OFA-Corporate and Electricity Finance, OFA Capital Markets, etc).

-Quarterly equity injections looks ok.

-OPG will need to determine who needs to sign-off on the equity injection requests.

-I don't know if OPG has any recommendations wrt how to determine how share price will be determined or if it will be a "par value" – will have to get our accountants involved as how it is booked

John or Kaitlin – the diagram has OEFC funding the equity injection – is that correct?

Regards
carlos

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 12:14 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

No worries – happy to chat – my afternoon is open so feel free to give me a call if you'd like to discuss

416.326.6343

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 12:01 PM
To: Montgomery, Kaitlin (MOF); Bruno Amara; Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi Kaitlin,

I missed this one as I was a bit under the weather last week. Will look at it this afternoon.

We may need to connect on a few things as we're interested in the approaches related to the legislation, etc.

John.

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 11:46 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

Hi all – just checking in – do you think you'll have any edits to provide today? I have some further thoughts/ considerations I'd like to build in and am hoping to run our thinking up the chain (ENE/MOF) before we discuss with OPG.

Legal is also looking into timing for me so I am hoping to provide a bit more insight on that in the next turn.

Thanks,
Kaitlin

From: Montgomery, Kaitlin (MOF)
Sent: March 17, 2017 11:14 AM
To: 'Bruno Amara'; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi – This is based on my read of relevant docs so far, one meeting I attended with OPG last week and our call – I'm sure I'm missing lots but just wanted to get something in the system for us to build on.

If you could layer in any relevant info/thoughts that would be great.

Happy to chat
Kaitlin
416.326.6343

From: Montgomery, Kaitlin (MOF)
Sent: March 16, 2017 3:16 PM
To: Bruno Amara; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: follow up from call

Hey guys – I can pull a one-pager together on what I know in terms of timing/what I was thinking in terms of process (with placeholders) to share with you guys for review/input --- does that work?

Kaitlin

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From:	Montgomery, Kaitlin (MOF)
To:	John Kim; Carlos Yep; Bruno Amara
Subject:	RE: follow up from call
Date:	Tuesday, March 21, 2017 4:21:41 PM
Attachments:	FW Rate Mitigation.msg

For sure – I pulled that diagram from an OPG white paper but happy to pull that from this note and I'll keep an eye out to make sure its not reference anywhere else.

I just mentioned this to Bruno but so that you're all aware. This one-pager will be something we can build on as our discussions with OPG progress, if we get to a point where we're comfortable it could also serve as an update to the broader implementation group. I've attached a summary of the last meeting and I'll try to share these on an ongoing basis in the future in case its helpful (Ron's on them too so maybe you already see them but just in case).

Kaitlin

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From: Nelms, Scott (MOF) [Scott.Nelms@ontario.ca]
To: Montgomery, Kaitlin (MOF) [Kaitlin.Montgomery@ontario.ca]
Subject: FW: Rate Mitigation
Date: Friday, March 17, 2017 13:40:21
Attachment 1: TOR_2528-#23096792-v1-Summary_of_Legislative_Issues v3.docx

---

From: Nelms, Scott (MOF)
Sent: March-17-17 1:49 PM
To: McLean, David (MOF)
Cc: Nancy Kennedy (MOF) (Nancy.Kennedy@ontario.ca); Mayman, Gadi (OFA) (Gadi.Mayman@ofina.on.ca); Kwan, Ronald (OFA) (Ronald.Kwan@ofina.on.ca)
Subject: Rate Mitigation

Hi Dave,

-

Please see the following summary of this week's rate mitigation update discussion:

GA Financing

-

OPG

•□□□□□□□□ RBC, CIBC, Goldman have been approached to act as leads for securitization (both for Canada and US). Terms have not yet been finalized

•□□□□□□□□ Sub-committee meetings are starting up, including facilitating the required equity injections from the Province

•□□□□□□□□ Bankers have suggested timelines are aggressive

•□□□□□□□□ OPG likely to establish the financing in the Fall but will have bridge facilities in place in order to accommodate financing in the interim period.

•□□□□□□□□ The idea is not to go to market each month, but potentially on a quarterly basis. Short term debt would accumulate monthly (the bridge facilities mentioned

above would help accommodate this) and then move to longer term borrowing financed via the quarterly offerings.

•□□□□□□□□ Each time OPG goes to market the asset would be re-sized and associated debt would all be considered a single tranche.

•□□□□□□□□ At this point the thinking is that all three credit agencies would rate the debt (Moody's, S&P, Fitch)

•□□□□□□□□ OPG highlighted some of the information that they'll require over the coming weeks/months:

o Customer data: Rating agencies will have a particular focus on 10% of customer bill and will require information to assess this

o Equity injection: Might require a second class of shares, redeemable because cash coming back on paydown

o Mechanism: Seeking clarity on what the process beyond year 4 will be with respect to determining the asset / liability

o OFA Involvement: OPG suggested that it may be difficult for OFA to purchase large parts of the 51% outside financing, as it may not meet accounting tests for independence. However, OPG is investigating whether OFA could act as a lead order in order to drive interest costs down.

•□□□□□□□□ OPG Board has chartered a special committee of the Board to advise on the structure. For now OPG is comfortable devoting time and resources on the basis of the Premier's announcement. The company may require a Shareholder Declaration / Resolution in order to advance the discussion (likely in April)

o OPG will work with the Province to carefully worded the Dec./Res. to ensure the Board maintains authority to proceed. Ultimately the Board needs to ensure the proposal they make is in the best interest of OPG based on its credit rating, governance and business interests

o The board may need enhanced indemnification for this initiative which the Province is considering

IESO

•□□□□□□□□ Conversations on technical process are underway (Ministry, OPG etc.)

•□□□□□□□□ KPMG requires draft legislation before it can provide an opinion on the

regulatory construct but this is still in the early stages. IESO will discuss the process and timelines for this opinion.

OEB

•□□□□□□□□ Require a letter from Minister to allow incorporation of GA Smoothing into May 1 RPP. OEB is developing a first draft.

•□□□□□□□□ A news release is planned for the Thursday following Easter announcing new RPP rates.

Blakes

•□□□□□□□□ Blakes provided a summary of legislative changes (see document attached)

•□□□□□□□□ One item in particular that they are thinking through is the impact of consumers exiting the system which would put pressure on the value of the asset. Consideration could be given to a true-up mechanism to ensure the cost is covered or potentially an exit charge

Affordability Fund:

•□□□□□□□□ This initiative is moving quickly with documents to be finalized and executed next week and flow of funds shortly thereafter

•□□□□□□□□ Computershare will act as the initial trustee and the trust documents will set out a process for selecting experts to act as Trustees and guide the flow of funds. Considering Trustees from areas including LDCs, social service agencies, staff level etc.

RRRP, OESP, First Nations Rate:

•□□□□□□□□ Work is proceeding with three separate sub-committees but there is a lot of cross over on all three workstreams

•□□□□□□□□ LDC working groups kicked off last week where they focused on bill presentation and implementation

•□□□□□□□□ OESP:

o The posting is up for comment (comment period ends April 8th)

o OESP be removed from the bill at the same time GA financing is implemented (May 1st) pending regulation amendment process

o Move toward 100% via automatic enrollment is more complex so may not be implemented for May 1st. ENE is working with MCSS to deploy a process similar to ODSP and other low income programs but a Federal exemption is required which conversation with the CRA are ongoing

•□□□□□□□□ RRRP:

o RRRP cannot be removed from the bill until the legislation is passed

o Conversations have started but the main work for LDCs will be implementing billing system changes and OEB can help identify who may require IT assistance

•□□□□□□□□ FN Rate:

o Chiefs of Ontario are interested in participating in a working group

o Eligibility will be geographically based (all on reserve residents). This may capture some non-First Nations residents. However this should be limited, and would be extremely complicated to avoid.

ICI:

•□□□□□□□□ LRC on April 11th with a May implementation date

•□□□□□□□□ Will begin outreach to Chamber of Commerce (OCC) and consider others (CME for example)

•□□□□□□□□ ENE will begin to sit down with other Ministries to discuss broader measures for small and medium businesses

•□□□□□□□□ ENE has met with LDCs to ensure they are aware of changes and EDA has flagged that clarity is needed for some small manufactures to ensure conservation incentive remains

Thanks,

Scott

Summary of Legislative Changes

What follows is a summary of five categories of legislative issues that are currently being dealt with by the legislative team. There is significant overlap between the categories (for example, some of the basic legislative changes could be categorized as changes that are designed to address market considerations).

The drafting of the legislative amendments will be a very detailed and iterative process and drafts of the legislation are currently under review by the team. We also anticipate that the provisions will be reviewed by other experts (for example, US counsel and investment banking advisor). However, we do not anticipate that the primary categories of amendment will change.

1. Basic Legislative Changes Required to Bring the Program into Existence

For example:

- explain policy intent (inter-generational funding)
- revise the general objects/purposes of the legislation to permit the program
- add new objects and rights for IESO to permit IESO's role in the program
- add obligations for IESO to make payments with respect to amounts borrowed under the securitization, the repayment of interest costs or charges, and costs related to the operation or management of the trust or other entity
- provide authority to OPG to establish trust or other entity and its right to recover interest costs, charges, and operating and management costs
    - allow for Trust/SPV to warehouse funds
- define the regulatory asset and allow it to be bought/sold between IESO and Trust/SPV
- define (generally) the group of consumers who benefit from GA refinancing and who will be required to repay it
- establishment of the IESO's obligations

2. Legislative Provisions to Establish the Regulatory Role of the OEB

For example,

- OEB role in creation of the regulatory asset
- OEB role with respect to review of calculations as to amounts to be paid by ratepayers to satisfy the debt obligations

DRAFT

- OEB role with respect to “true-up” of GA calculations (annual or semi-annual)
- OEB role regarding administrative costs of the trust or entity

3. Legislative Provisions Related to OPG

For example,

- provisions to ensure that OPG has the legal authority to implement the program
- provisions to ensure that OPG’s assets are properly ring-fenced
- provisions to ensure OPG has authority to create subsidiaries or other entities and transact with the Trust/SPV

4. Legislative Provisions to Address Market Considerations

For example, provisions to provide,

- the creation of the new trust (or other) entity and ensure that it is bankruptcy remote
- clear identification of consumer groups to whom the program applies (“RPP eligible”)
- restrictions on consumer group’s ability to “opt-out” or by-pass the charge (to avoid de-valuing the asset)
- establishment of the owner’s clear right to the regulatory asset to enable payment of principal and interest to investors
- a re-set or true-up mechanism to enable the owner of the payment stream to account for differences between anticipated and actual performance of the GA
- a system to deal with sharing/pro-rating if the ratepayer pays less than the invoiced amount
- irrevocability of the owner’s property right (or a surrogate for irrevocability)
- the establishment of a “true sale” of the regulatory asset

5. Addition of Legislative Provisions (to be considered)

- cap maximum GA refinancing in a year by dollar value
- set a maximum interest amount for GA refinancing debt after year 5

DRAFT

- cap GA refinancing based on OPG financial ratios
- fix the date until which rate payers receive a discount for GA refinancing
- fix a total amount to be borrowed as “principal”, at which point further borrowing must service the debt and does not reduce GA paid by rate payers
- determine how surpluses in collections are to be applied (e.g. reinvest in GA reduction before new debt)
- cap increases to rate payer bills at no more than ■% in a year

DRAFT

From: Montgomery, Kaitlin (MOF)
To: Bruno Amara; John Kim; Carlos Yep
Subject: RE: follow up from call
Date: Friday, March 17, 2017 11:14:25 AM
Attachments: GA Financing - Equity Injection Discussion.docx

Hi – This is based on my read of relevant docs so far, one meeting I attended with OPG last week and our call – I'm sure I'm missing lots but just wanted to get something in the system for us to build on.

If you could layer in any relevant info/thoughts that would be great.

Happy to chat
Kaitlin
416.326.6343

From: Montgomery, Kaitlin (MOF)
Sent: March 16, 2017 3:16 PM
To: Bruno Amara; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: follow up from call

Hey guys – I can pull a one-pager together on what I know in terms of timing/what I was thinking in terms of process (with placeholders) to share with you guys for review/input --- does that work?

Kaitlin

GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to purchase the GA Asset from the IESO it will obtain financing from two sources
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from an equity injection from the Province**
        - 5% from capital markets

TIMING:

- **April:** Legislative Changes Proposed
- **May 1**: GA smoothing incorporated into RRP rates
- **May – August**: OPG/IESO bridge financing in place to manage debt
- **September**:
    - SPV borrowing begins and would continue on a quarterly basis (ie. Sept/Dec/Mar/June)
        - Bridge financing is used to fund the GA shortfall in the interim months
    - Province would fund equity injection as required by OPG (quarterly basis)

POTENTIAL PROVINCIAL PROCESS

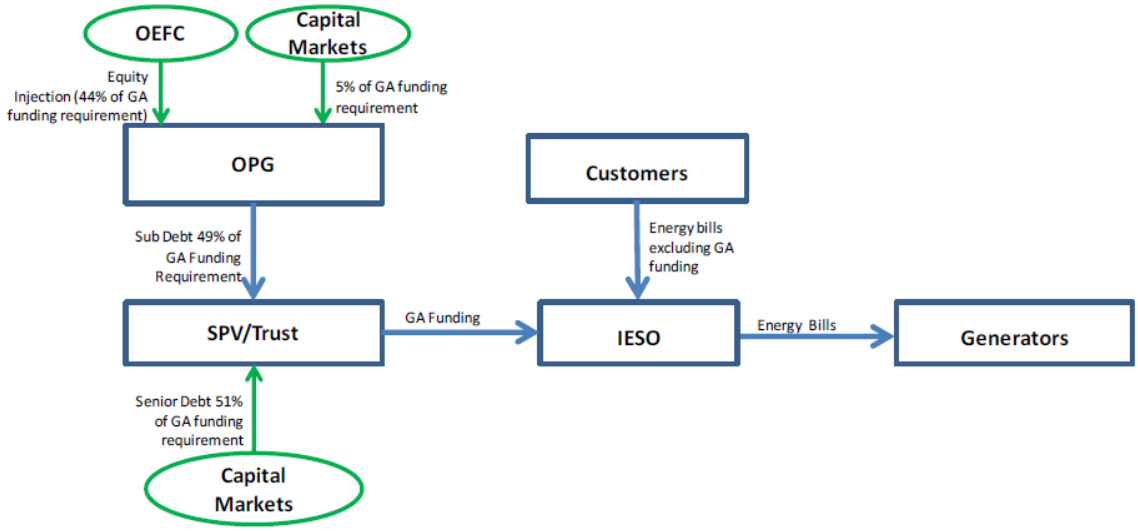
<u>Illustrative Timeline/ Approvals Process</u>

- OPG includes equity injection requirements in Business Plan
    - Target delivery to the Province in November of each year
    - Incorporate forecasted equity injection requirements for Province's fiscal year into business plan (March 31 year-end)
- Province seeks TB/MBC approval for equity issuances as part of Business Plan concurrence process
    - Target February TB date each year to ensure approvals in place as of April 1st of each year
    - TB approval would provide approval for OPG to issue up to x amount of shares within the next year (would need to cover approvals required in articles)
    - TB approval would provide appropriation to ENE/MOF for equity injections to OPG
    - TB approval would delegate authority [to minister/deputy minister] to execute equity injections

Provincial Mechanism

- Is there a more granular mechanism on the loan side? (ie. OPG provides x days notice that they require x amount, x person needs to sign off, etc.)

Appendix – Illustrative Structure



From: Montgomery, Kaitlin (MOF)
To: John Kim; Carlos Yep; Bruno Amara
Subject: RE: follow up from call
Date: Thursday, March 23, 2017 1:36:53 PM
Attachments: 2017 03 22 GA Financing - Equity Injection Discussion v02.docx

---

Revised version. Everything in here is up for discussion, I just wanted to share a straw man for people to react to.

Key changes relative to the last version:

- I've positioned as an ENE TB approval/appropriation request (though I haven't actually run this by ENE yet….)– they already have an operating asset, and hold the current OPG shares so I think any new shares would be held in the same place. I'm thinking about it similar to the equity injection that was done for H1 departure tax payment (ENE booked it but OFA actually flowed the funds). I've embedded within the OPG BP process for simplicity but if you think it should be on a separate track I'm happy to explore that.
- On the value of the shares-My understanding is it doesn't matter, but for simplicity I think we should keep it the same as the current shares unless anyone raises benefits/considerations otherwise

Realise you guys are still thinking this through, but if your schedule permits It would be helpful if we could regroup today/tomorrow on this so I can hear what you guys are considering and chat next steps

Kaitlin

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 3:38 PM
To: Yep, Carlos (OFA); Montgomery, Kaitlin (MOF); Bruno Amara
Subject: RE: follow up from call

And in this working group, could we not reference the OEFC doing the equity injection pls? I've seen a few documents that refer to the OEFC but if we could avoid that going forward, that'd be appreciated.

John

From: John Kim
Sent: Tuesday, March 21, 2017 3:32 PM
To: Carlos Yep <Carlos.Yep@ofina.on.ca>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Hi,

My understanding though it'd be good to check with accountants (assuming OPG accountants) would be that it would not matter given OPG does not have its shares trading. I think there are

more technical ways of describing this but will leave at that.

On the diagram, it is my understanding that it'd be the Province.

Thanks,

John

From: Carlos Yep
Sent: Tuesday, March 21, 2017 3:20 PM
To: 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: RE: follow up from call

Kaitlin,
After the relevant legislation, Provincial approvals, OPG approvals ….. The funding of the Global Adjustment equity injection, will have a line on the Financing Table that feeds the Ontario Budget → and will then be incorporated on the Long Term Borrowing requirements for the Province.

-We are flexible on working with OPG on setting the required advance notice period that OPG needs to provide the Province (Energy, OFA-Corporate and Electricity Finance, OFA Capital Markets, etc).

-Quarterly equity injections looks ok.

-OPG will need to determine who needs to sign-off on the equity injection requests.

-I don't know if OPG has any recommendations wrt how to determine how share price will be determined or if it will be a "par value" – will have to get our accountants involved as how it is booked

John or Kaitlin – the diagram has OEFC funding the equity injection – is that correct?

Regards
carlos

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 12:14 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

No worries – happy to chat – my afternoon is open so feel free to give me a call if you'd like to

discuss

416.326.6343

From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: March 21, 2017 12:01 PM
To: Montgomery, Kaitlin (MOF); Bruno Amara; Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi Kaitlin,

I missed this one as I was a bit under the weather last week. Will look at it this afternoon.

We may need to connect on a few things as we're interested in the approaches related to the legislation, etc.

John.

From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Tuesday, March 21, 2017 11:46 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Subject: RE: follow up from call

Hi all – just checking in – do you think you'll have any edits to provide today? I have some further thoughts/ considerations I'd like to build in and am hoping to run our thinking up the chain (ENE/MOF) before we discuss with OPG.

Legal is also looking into timing for me so I am hoping to provide a bit more insight on that in the next turn.

Thanks,
Kaitlin

From: Montgomery, Kaitlin (MOF)
Sent: March 17, 2017 11:14 AM
To: 'Bruno Amara'; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: RE: follow up from call

Hi – This is based on my read of relevant docs so far, one meeting I attended with OPG last week and our call – I'm sure I'm missing lots but just wanted to get something in the system for us to build on.

If you could layer in any relevant info/thoughts that would be great.

Happy to chat
Kaitlin

416.326.6343

From: Montgomery, Kaitlin (MOF)
Sent: March 16, 2017 3:16 PM
To: Bruno Amara; Kim, John (OFA) (John.Kim@ofina.on.ca); Yep, Carlos (OFA)
Subject: follow up from call

Hey guys – I can pull a one-pager together on what I know in terms of timing/what I was thinking in terms of process (with placeholders) to share with you guys for review/input --- does that work?

Kaitlin

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

GA Financing – Equity Injection

Briefing Note

PURPOSE:

- Develop a timeline / mechanism to facilitate equity injections by the Province to OPG to support GA financing

CONTEXT:

- IESO will effectively sell the "right to collect" deferred future revenue from ratepayers (GA Asset) to the SPV in return for cash proceeds
- In order for the SPV to finance the GA asset on a long-term will obtain financing from two sources on an ongoing basis
    - 51% from capital markets
    - 49% as subordinated debt from OPG, which OPG will finance through:
        - **44% from equity injections from the Province**
        - 5% from capital markets
- OPG will require equity injections on an ongoing basis in order to keep its capital structure in line, and will require flexibility in order to issues shares as needed

GA FINANCING IMPLEMENTATION TIMING:

- **April:** Proposed Legislative Changes Drafted (retroactive to May 1)
- **May 1**: GA smoothing incorporated into "RRP" rates
- **Early June:** Legislation may be passed and SPV created. OPG uses short term facility to accommodate GA asset purchase [OPG TBC]. This represents the earliest possible equity injection [OPG TBC]
- **September**:
    - SPV long-term borrowing begins and would continue

POTENTIAL PROVINCIAL PROCESS FOR EQUITY INJECTIONS

<u>Required Approvals for Equity Injection in May 2017</u>

- ENERGY would seek TB/MBC approval for equity injection up to $xxM over next three years
- Seek approval to use the Operating Asset (vote xx) [ENE CORP TBC]
- Seek appropriation for $xxM in 2017-18 and Note that the out-year requests will be included in ENE's PRRT submission

<u>Ongoing Provincial Approvals Process</u>

- **Nov/Dec**: OPG includes forecasted equity injection requirements in rolling 3-year Business Plan

- **Feb/Mar**: ENERGY seeks TB/MBC approval for equity injection/OPG issuance as part of annual Business Plan concurrence process
    - ENE would seek TB/MBC approval for authority to inject up to $xx in OPG, in exchange for up to xx shares over the next 3 year term [OPG TBC: does this satisfy requirements in articles]
    - Seek approval delegating authority to Minister of Energy to work with the Ministry of Finance to execute equity injections, working with the OFA
    - Seek approval to include the 3-year equity request in ENE's PRRT submission through the operating asset in vote xx
- **Oct/Nov**: ENE would seek appropriation for out-year funding of equity injections

<u>Ongoing Implementation Process</u>

- OPG would send a letter to the Minister of Energy requesting an equity injection of $xx, in exchange for xx shares
- If Minister approves, ENE would work with OFA to flow the money [OFA TBC: Do you need something formal to do this? How much notice do you need to flow the cash? Any other mechanical requirements we should flag?]

Further Considerations

- Share Price Determination:
    - As of December 31, 2016 OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million ($20/share book value)
    - All new issuances would be priced at the same value as existing shares ($20/share)

From: Francisco Chinchon
To: John Kim
Subject: Re: BN - GA Equity Injection Structure v7._Markup.docx
Date: Monday, April 03, 2017 7:21:07 PM

Thank you John. Thank you.

On Apr 3, 2017, at 7:20 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Tomorrow AM is OK. I won't get a chance to look at it till noon or so.
>
> ---
>
> **From:** Francisco Chinchon
> **Sent:** Monday, April 03, 2017 7:18 PM
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Subject:** Re: BN - GA Equity Injection Structure v7._Markup.docx
>
> You need this tonight?
>
> On Apr 3, 2017, at 5:44 PM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> > Comments welcome.
> >
> > Thank you Francisco. Very complex.
> >
> > ---
> >
> > **From:** John Kim
> > **Sent:** Monday, April 03, 2017 5:13 PM
> > **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
> > **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
> > **Subject:** RE: BN - GA Equity Injection Structure v7._Markup.docx
> >
> > I reworked it a bit.
> >
> > John
> >
> > ---
> >
> > **From:** John Kim
> > **Sent:** Monday, April 03, 2017 4:32 PM
> > **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
> > **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
> > **Subject:** RE: BN - GA Equity Injection Structure v7._Markup.docx

What do you mean by the lock-up period?

From: Adam Prokop
Sent: Monday, April 03, 2017 4:22 PM
To: John Kim <John.Kim@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

Thanks John,

Responded to comments and reedited.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

From: John Kim
Sent: Monday, April 03, 2017 4:12 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: BN - GA Equity Injection Structure v7._Markup.docx

I know Bruno and Shajee are tied up on the narrative so took a quick look. Are my edits fair description of the interactions with OPG? Also, could you take a look at the comment?

<BN - GA Equity Injection Structure v7._Markup3.docx>

From: Francisco Chinchon
To: John Kim
Subject: Re: BN - GA Equity Injection Structure v7._Markup.docx
Date: Monday, April 03, 2017 7:17:38 PM

You need this tonight?

On Apr 3, 2017, at 5:44 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Comments welcome.
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> **Subject:** RE: BN - GA Equity Injection Structure v7._Markup.docx
>
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> Responded to comments and reedited.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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To: Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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Subject: BN - GA Equity Injection Structure v7._Markup.docx

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<BN - GA Equity Injection Structure v7._Markup3.docx>

From: John Kim
To: Bruno Amara
Cc: Adam Prokop; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject: Re: BN - GA Equity Injection Structure v7._Markup.docx
Date: Monday, April 03, 2017 8:47:56 PM

Thanks....wouldn't mind getting things to seem less read like before.

On Apr 3, 2017, at 8:45 PM, Bruno Amara <Bruno.Amara@ofina.on.ca> wrote:

> Good draft note. A couple of comments in attached. And one general comment. I think it's all pretty reader-friendly until the last section CONSIDEARSTIONS/POTENTIAL RISKS. Mainly about being able to read through and be able to understand fairly easily if there are a number of considerations/risks discussed. Or are all bullets related to one consideration/risk. But I didn't have any particular suggestion just now.
>
> Bruno
>
> ---
>
> **From:** John Kim
> **Sent:** Monday, April 03, 2017 5:13 PM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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<Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: BN - GA Equity Injection Structure v7._Markup.docx

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Responded to comments and reedited.

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Economic Specialist
Office: 416-315-6462
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Subject: BN - GA Equity Injection Structure v7._Markup.docx

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<BN - GA Equity Injection Structure v7._Markup4.docx>

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim; Adam Prokop
Subject: Re: EXTERNAL - Interest Recovery
Date: Monday, March 20, 2017 4:24:54 PM
Attachments: image001.png

Thanks. And the cumulative interest would be down by a similar amount over that period? How about over the full 30 year period?

Ron

From: Bruno Amara
Sent: March 20, 2017 4:18 PM
To: Ronald Kwan
Cc: John Kim; Adam Prokop
Subject: FW: EXTERNAL - Interest Recovery

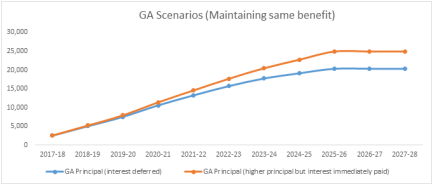
Hi Ron

See Adam's response below to your question. If interest is recovered from ratepayers then GA deferral will be need to be higher to provide same 25% benefit.

Bruno

From: Adam Prokop
Sent: Monday, March 20, 2017 3:44 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Here is a more exact calculation:



$ Millions

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
GA (interest deferred)	2,501	5,009	7,509	10,584	13,244	15,698	17,736	19,121	20,332	20,332	20,332
GA (higher principal but interest immediately paid)	2,540	5,178	7,924	11,384	14,554	17,654	20,464	22,734	24,924	24,924	24,924
Difference	39	169	415	800	1,310	1,956	2,728	3,613	4,592	4,592	4,592

Essentially, there will be more principal at the beginning but less interest costs over time (and faster payment of principal) under the method proposed by OPG. The higher principal amount is ~ $5B before repayments start to be made. If interest costs are deferred, the principal is lower but there are higher interest costs. The long-term costs are very similar, but OPG's method allows the Trust to collect cash and recognize income immediately.

Kind regards,

Adam Prokop

From: Ronald Kwan
Sent: Monday, March 20, 2017 1:45 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi John,

What would be the equivalent change in GA deferral to achieve the same overall bill impact, so the revised cumulative deferral "principal" amount vs cumulative interest?

Ron

From: John Kim
Sent: March-20-17 13:19
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: FW: EXTERNAL - Interest Recovery

Fyi.

From: Adam Prokop
Sent: Monday, March 20, 2017 1:14 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Just as we expected, all interest and fees will be recovered every year immediately.

Kind regards,

Adam Prokop

From: GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
Sent: Monday, March 20, 2017 12:51 PM
To: Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: RE: EXTERNAL - Interest Recovery

Hi Adam
I've confirmed that 100% of the interest and fees would be recovered through the process immediately.
Please give me a call if you need anything further.
Thanks
Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Monday, March 20, 2017 11:06 AM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL -- Interest Recovery

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hello Clara,

You can reach me from here if I'm not in my office.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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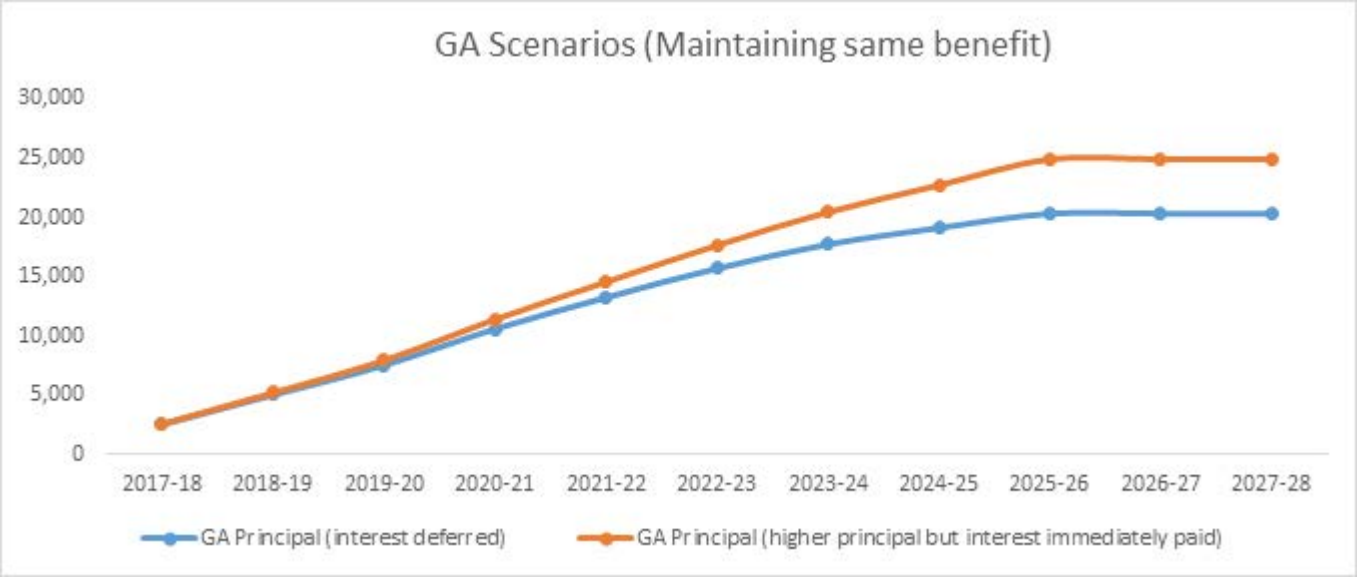
GA Scenarios (Maintaining same benefit)
30,000
25,000
20,000
15,000
10,000
5,000
0
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
2024-25
2025-26
2026-27
2027-28
GA Principal (interest deferred)
GA Principal (higher principal but interest immediately paid)

From: Bruno Amara
To: John Kim
Subject: Re: EXTERNAL - OPG - 44% of GA Deferral from the Province.
Date: Friday, March 31, 2017 3:14:23 PM

Just looked at a draft to share with Legal. looks close.

Sent from my iPhone

On Mar 31, 2017, at 3:07 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Bruno,
>
> Did staff give you a sense of when the note would be ready?
>
> John
>
> ---
>
> **From:** Adam Prokop
> **Sent:** March-31-17 2:59 PM
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
> **Cc:** Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
> **Subject:** FW: EXTERNAL - OPG - 44% of GA Deferral from the Province.
>
> FYI.
>
> Will have more on Monday.
>
> Kind regards,
>
> Adam Prokop
>
> ---
>
> **From:** GRECO Clara -LAWDIV [mailto:clara.greco@opg.com]
> **Sent:** Friday, March 31, 2017 2:51 PM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Subject:** RE: EXTERNAL - OPG - 44% of GA Deferral from the Province.
>
> Hi Adam
> After a very brief discussion with our Treasury folks it looks like they are thinking about a premium for the redemption right, and the initial thinking is that we would use 10%, ie $22. But I will confirm this Monday, as well as give you some feedback on the interest issue.
> Thanks
> Clara

Clara Greco
Senior Manager Business Development
Ontario Power Generation
700 University Ave H18C19
Toronto ON M5G 1X6

Office: 416-592-8226 Cell: 416-859-6416
clara.greco@opg.com

From: Adam Prokop [mailto:Adam.Prokop@ofina.on.ca]
Sent: Friday, March 31, 2017 2:08 PM
To: GRECO Clara -LAWDIV
Subject: EXTERNAL - OPG - 44% of GA Deferral from the Province.

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Hello Clara,

It is Adam again. Wanted to know of you were free to discuss the equity injection from the Province from the perspective of OPG? Especially on the treatment of the equity (preferred vs common).

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca

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From: Ronald Kwan
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 10:54:22 AM

Thanks John. Fine that TPD should be drafting. Should review the draft, though.

Ron

On Apr 21, 2017, at 10:52 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> It was fine but it'd be up to Rob to put something down on paper. Both Kaitlin and I have offered to help if he had further questions.
>
> We're too jammed today to try to help Rob by actually starting to draft something....
>
> ---
>
> **From:** Ronald Kwan
> **Sent:** Friday, April 21, 2017 10:44 AM
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Subject:** Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> How did your call go? Does Rob better understand the context, structure and planned nature of the Trust (e.g., non-contributory and not intended as a tax avoidance vehicle)?
>
> Is a discussion with OPG tax folks needed?
>
> Ron
>
> On Apr 20, 2017, at 11:38 AM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> > Hi Rob,
> >
> > I will give you a call this afternoon.
> >
> > John
> >
> > ---
> >
> > **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > **Sent:** Thursday, April 20, 2017 11:26 AM
> > **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
> > **Cc:** John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
> >
> > ---
> >
> > **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> > **Sent:** April 20, 2017 9:21 AM
> > **To:** Lewis, Robin (MOF)
> > **Cc:** Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> > **Subject:** Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Hi Scott, Rob,
> >
> > Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
> >
> > Scott, if you're busy, staff here could provide Rob some context if you're not available.
> >
> > Ron
> >
> > On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:
> >
> > > Scott,
> > >
> > > The proposal appears to have some characteristics of a tax avoidance scheme.
> > >
> > > The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
> > >
> > > I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
> > >
> > > We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
> > >
> > > This matter ought to be the subject of a ruling request.
> > >
> > > Regards,
> > >
> > > Rob Lewis
> > >
> > > ---
> > >
> > > **From:** Nelms, Scott (MOF)
> > > **Sent:** April 19, 2017 5:48 PM
> > > **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> > > **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> > > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Hi Rob, John Bruno,
> > >
> > > Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
> > >
> > > Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
> > >
> > > Thanks very much and apologies for the short notice,
> > > Scott
> > >
> > > Scott Nelms
> > > Electricity Investment and Governance Secretariat | Ministry of Finance
> > > 7th Floor | 375 University ave. | Toronto, ON
> > > w: (416) 212-6469 | c: (647) 330-2681
> > > scott.nelms@ontario.ca
> > >
> > > ---
> > >
> > > **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> > > **Sent:** April 18, 2017 9:24 AM
> > > **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> > > **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> > > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Hi,
> > >
> > > Please loop in John and Bruno too.
> > >
> > > Thanks,
> > > Ron
> > >
> > > ---
> > >
> > > **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]

Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
>
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:
>
> > Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
> >
> > > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> > >
> > > Hi Ron, Gadi,
> > >
> > > I hope you are enjoying the long weekend.
> > >
> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> > >
> > > Thanks,
> > > Scott
> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Scott,
> > > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > > Thanks,
> > > Ken
> > >
> > > -----Original Message-----
> > > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYquIJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_ryUxBLo&s=x4GAuzXajASWlUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

_____

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_____

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 5:09:12 PM

Yep I'm free al day

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:46 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could we chat again tomorrow?

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:24 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:19 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

Our concern is - whatever we do we want to ensure Energy is onside.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:12 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
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To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
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I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

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Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

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Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>

<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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_____

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 4:24:12 PM

For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:19 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

Our concern is - whatever we do we want to ensure Energy is onside.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:12 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
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Thanks very much and apologies for the short notice, Scott

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w: (416) 212-6469 | c: (647) 330-2681
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Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

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Date: April 17, 2017 at 9:48:35 AM EDT
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Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

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From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

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Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 4:12:05 PM

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
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Subject: Fair Hydro Plan - question on taxation

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From: Ronald Kwan
To: Robin Lewis (MOF)
Cc: Scott Nelms (ENERGY); John Kim; Bruno Amara; Sriram Subrahmanyan (MOF); Ann Langleben (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 9:20:55 AM

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

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> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
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> Thanks very much and apologies for the short notice,
> Scott
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance
> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Please loop in John and Bruno too.
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> Thanks,
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> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
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> **Sent:** April 17, 2017 12:50 PM
> **To:** Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> **Cc:** Nelms, Scott (MOF)
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Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

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> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
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> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
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> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
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> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > Sent: April-15-17 1:16 PM
> > To: Nelms, Scott (MOF)
> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> > Sent: Thursday, April 13, 2017 8:19 PM
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> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
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> > Date: Thursday, Apr 13, 2017, 6:50 PM
> > To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> > Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>
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(Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

_____

_____

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From: Salman Qadir
To: John Kim
Cc: Bruno Amara; Adam Prokop
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 8:25:58 AM

Will do.

Just a question, is there a particular reason we are not engaging MOF legal on this? Its draft legislation and we want to make sure we interpret the changes accurately.

Salman

Sent from my iPhone

On Apr 20, 2017, at 8:12 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Salman,
>
> If you could back up Adam on this.....
>
> John
>
> ---
>
> **From:** John Kim
> **Sent:** Thursday, April 20, 2017 8:12 AM
> **To:** Adam Prokop <Adam.Prokop@ofina.on.ca>
> **Cc:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Subject:** FW: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Adam,
>
> Can you take a look?
>
> Thanks,
>
> John
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Wednesday, April 19, 2017 5:48 PM
> **To:** Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> Hi Rob, John Bruno,
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> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
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> 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca
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> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 9:24 AM
> **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
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> Hi,
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> Ron
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> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-17-17 12:53 PM
> **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
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> Sent from my BlackBerry 10 smartphone on the Rogers network.
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> **Sent:** Monday, April 17, 2017 10:44 AM
> **To:** Subrahmanyan, Sriram (MOF)
> **Cc:** Nelms, Scott (MOF)

Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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> > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
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<23344385_4.docx>

<Blackline_23344385v1 - 23344385_4.pdf>

From: Ronald Kwan
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 10:44:07 AM

Hi,

How did your call go? Does Rob better understand the context, structure and planned nature of the Trust (e.g., non-contributory and not intended as a tax avoidance vehicle)?

Is a discussion with OPG tax folks needed?

Ron

On Apr 20, 2017, at 11:38 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Rob,
>
> I will give you a call this afternoon.
>
> John
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** Thursday, April 20, 2017 11:26 AM
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
> **Cc:** John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 20, 2017 9:21 AM
> **To:** Lewis, Robin (MOF)
> **Cc:** Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> **Subject:** Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Scott, Rob,
>
> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>
> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>
> Ron
>
> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca> wrote:
>
> > Scott,
> >
> > The proposal appears to have some characteristics of a tax avoidance scheme.
> >
> > The *Electricity Act, 1998* applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
> >
> > I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
> >
> > We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
> >
> > This matter ought to be the subject of a ruling request.
> >
> > Regards,
> >
> > Rob Lewis
> >
> > ---
> >
> > **From:** Nelms, Scott (MOF)
> > **Sent:** April 19, 2017 5:48 PM
> > **To:** Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> > **Cc:** Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Hi Rob, John Bruno,
> >
> > Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
> >
> > Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
> >
> > Thanks very much and apologies for the short notice,
> > Scott
> >
> > Scott Nelms
> > Electricity Investment and Governance Secretariat | Ministry of Finance
> > 7th Floor | 375 University ave. | Toronto, ON
> > w: (416) 212-6469 | c: (647) 330-2681
> > scott.nelms@ontario.ca
> >
> > ---
> >
> > **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> > **Sent:** April 18, 2017 9:24 AM
> > **To:** Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> > **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Hi,
> >
> > Please loop in John and Bruno too.
> >
> > Thanks,
> > Ron
> >
> > ---
> >
> > **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > **Sent:** April-17-17 12:53 PM
> > **To:** Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> > **Cc:** Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca>
> > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> >
> > Certainly. Will do.
> >
> > ---
> >
> > **From:** Subrahmanyan, Sriram (MOF)
> > **Sent:** April-17-17 12:52 PM
> > **To:** Nelms, Scott (MOF); Kwan, Ronald (OFA)
> > **Cc:** Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> > **Subject:** RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:

> **From:** "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca>
> **Date:** April 17, 2017 at 9:48:35 AM EDT
> **To:** "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca>
> **Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation**
>
> Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com])
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
>
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca> wrote:
>
> > Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
> >
> > > On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca> wrote:
> > >
> > > Hi Ron, Gadi,
> > >
> > > I hope you are enjoying the long weekend.
> > >
> > > As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
> > >
> > > Thanks,
> > > Scott
> > >
> > > -----Original Message-----
> > > From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> > > Sent: April-15-17 1:16 PM
> > > To: Nelms, Scott (MOF)
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > Scott,
> > > It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> > > Thanks,
> > > Ken
> > >
> > > -----Original Message-----
> > > From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> > > Sent: Thursday, April 13, 2017 8:19 PM
> > > To: RYFA Ken -TREASURY
> > > Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> > > Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
> > >
> > > *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
> > >
> > > Hi Ryan,
> > >
> > > I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,

Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com>>

Date: Thursday, Apr 13, 2017, 6:50 PM

To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>

Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>>

Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.

Thanks,

Ken

_____

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 10:00:25 AM

Sorry got held up - im on my way!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Friday, April 21, 2017 9:22 AM
To: Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup...see you in a bit!

> On Apr 21, 2017, at 9:20 AM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
> Would 10 work?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Friday, April 21, 2017 8:03 AM
> To: Montgomery, Kaitlin (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Would you mind coming by? How about 10:30?
>
>> On Apr 20, 2017, at 5:18 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>>
>> Yep whatever works - im happy to come that way if it's easier just lemme know what works best
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:17 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Ok, good. Closer than I thought or maybe we can meet half way.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:16 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Were at 375 University (just south of Dundas)
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:15 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Where are you located....I might come by if I can.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:09 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Yep I'm free al day
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:46 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Could we chat again tomorrow?
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:24 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:19 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.
>>
>> Our concern is - whatever we do we want to ensure Energy is onside.

>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:12 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Great - thx!
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:02 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Yup, I gave him a call just before that call with TBS. I think he's got enough background now.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:01 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> Hey John - were you able to speak to rob?
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>> From: John Kim <John.Kim@ofina.on.ca>
>> Sent: Thursday, April 20, 2017 11:38 AM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
>> Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> Hi Rob,
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>> John
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>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 20, 2017 11:26 AM
>> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
>> Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>>
>> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
>> Sent: April 20, 2017 9:21 AM
>> To: Lewis, Robin (MOF)
>> Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> Hi Scott, Rob,
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>> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>>
>> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>>
>> Ron
>>
>> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
>> Scott,
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>> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>>
>> This matter ought to be the subject of a ruling request.
>>
>> Regards,
>>
>> Rob Lewis
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>> From: Nelms, Scott (MOF)
>> Sent: April 19, 2017 5:48 PM
>> To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
>> Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
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>> Hi Rob, John Bruno,
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>>
>> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>>

>> Thanks very much and apologies for the short notice, Scott
>>
>>
>> Scott Nelms
>> Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
>> w: (416) 212-6469 | c: (647) 330-2681
>> scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>
>>
>>
>>
>> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
>> Sent: April 18, 2017 9:24 AM
>> To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi,
>>
>> Please loop in John and Bruno too.
>>
>> Thanks,
>> Ron
>>
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: April-17-17 12:53 PM
>> To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF)
<Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Certainly. Will do.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:52 PM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Could you include Rob in your discussions, so we know exactly what they're proposing?
>>
>> From: Nelms, Scott (MOF)
>> Sent: April 17, 2017 12:50 PM
>> To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:11 PM
>> To: Kwan, Ronald (OFA)
>> Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> From: Ronald Kwan
>> Sent: Monday, April 17, 2017 10:44 AM
>> To: Subrahmanyan, Sriram (MOF)
>> Cc: Nelms, Scott (MOF)
>> Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Hi Sriram,
>>
>> See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.
>>
>> Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).
>>
>> Note that the timelines for drafting legislation generally for the Plan is very tight.
>>
>> Scott N. will ask for more detail from OPG.
>>
>> Would Ann and Rob be the right people to loop in on this?
>>
>> Ron
>>
>> Begin forwarded message:
>> From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
>> Date: April 17, 2017 at 9:48:35 AM EDT
>> To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>>
>>
>> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)
>>
>> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>><mailto:Ronald.Kwan@ofina.on.ca>>
>> Date: Sunday, Apr 16, 2017, 8:50 PM
>> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF)
<Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>><mailto:Scott.Nelms@ontario.ca>>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Gadi, Scott,
>>

>> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>>
>> Ron
>> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:
>>
>> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>>
>> On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:
>>
>> Hi Ron, Gadi,
>>
>> I hope you are enjoying the long weekend.
>>
>> As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
>>
>> Thanks,
>> Scott
>>
>> -----Original Message-----
>> From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
>> Sent: April-15-17 1:16 PM
>> To: Nelms, Scott (MOF)
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Scott,
>> It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
>> Thanks,
>> Ken
>>
>> -----Original Message-----
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 13, 2017 8:19 PM
>> To: RYFA Ken -TREASURY
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
>>
>> Hi Ryan,
>>
>> I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
>>
>> Thanks,
>> Scott
>>
>>
>> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
>>
>> From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
>> Date: Thursday, Apr 13, 2017, 6:50 PM
>> To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
>> Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
>> Subject: Fair Hydro Plan - question on taxation
>>
>> Scott,
>>
>> I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
>>
>> 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
>>
>> Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
>>
>> Hope this helps.
>> Thanks,
>> Ken
>>
>>
>> _____
>>
>> _____
>>
>> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>>
>>
>> ----------
>>
>> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>>
>> _____
>>

>> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 9:22:08 AM

Yup...see you in a bit!

> On Apr 21, 2017, at 9:20 AM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
> Would 10 work?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Friday, April 21, 2017 8:03 AM
> To: Montgomery, Kaitlin (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Would you mind coming by? How about 10:30?
>
>> On Apr 20, 2017, at 5:18 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>>
>> Yep whatever works - im happy to come that way if it's easier just lemme know what works best
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:17 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Ok, good. Closer than I thought or maybe we can meet half way.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:16 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Were at 375 University (just south of Dundas)
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 5:15 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Where are you located....I might come by if I can.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 5:09 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Yep I'm free al day
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:46 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Could we chat again tomorrow?
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:24 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:19 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.
>>
>> Our concern is - whatever we do we want to ensure Energy is onside.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:12 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Great - thx!
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.

>> Original Message
>> From: John Kim
>> Sent: Thursday, April 20, 2017 4:02 PM
>> To: Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Yup, I gave him a call just before that call with TBS. I think he's got enough background now.
>>
>> -----Original Message-----
>> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
>> Sent: Thursday, April 20, 2017 4:01 PM
>> To: John Kim <John.Kim@ofina.on.ca>
>> Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hey John - were you able to speak to rob?
>>
>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> From: John Kim <John.Kim@ofina.on.ca>
>> Sent: Thursday, April 20, 2017 11:38 AM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
>> Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Hi Rob,
>>
>> I will give you a call this afternoon.
>>
>> John
>>
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 20, 2017 11:26 AM
>> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
>> Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>>
>> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
>> Sent: April 20, 2017 9:21 AM
>> To: Lewis, Robin (MOF)
>> Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Scott, Rob,
>>
>> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>>
>> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>>
>> Ron
>>
>> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
>> Scott,
>>
>> The proposal appears to have some characteristics of a tax avoidance scheme.
>>
>> The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>>
>> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>>
>> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>>
>> This matter ought to be the subject of a ruling request.
>>
>> Regards,
>>
>> Rob Lewis
>>
>> From: Nelms, Scott (MOF)
>> Sent: April 19, 2017 5:48 PM
>> To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
>> Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Rob, John Bruno,
>>
>> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>>
>> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>>
>> Thanks very much and apologies for the short notice, Scott
>>
>>
>> Scott Nelms
>> Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
>> w: (416) 212-6469 | c: (647) 330-2681
>> scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>
>>
>>
>>

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>> Sent: April 18, 2017 9:24 AM
>> To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> Hi,
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>> Please loop in John and Bruno too.
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>> Thanks,
>> Ron
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>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: April-17-17 12:53 PM
>> To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Certainly. Will do.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:52 PM
>> To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> Could you include Rob in your discussions, so we know exactly what they're proposing?
>>
>> From: Nelms, Scott (MOF)
>> Sent: April 17, 2017 12:50 PM
>> To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
>> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>>
>> From: Subrahmanyan, Sriram (MOF)
>> Sent: April-17-17 12:11 PM
>> To: Kwan, Ronald (OFA)
>> Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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>> I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?
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>> Sent from my BlackBerry 10 smartphone on the Rogers network.
>> From: Ronald Kwan
>> Sent: Monday, April 17, 2017 10:44 AM
>> To: Subrahmanyan, Sriram (MOF)
>> Cc: Nelms, Scott (MOF)
>> Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>>
>> Hi Sriram,
>>
>> See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.
>>
>> Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).
>>
>> Note that the timelines for drafting legislation generally for the Plan is very tight.
>>
>> Scott N. will ask for more detail from OPG.
>>
>> Would Ann and Rob be the right people to loop in on this?
>>
>> Ron
>>
>> Begin forwarded message:
>> From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
>> Date: April 17, 2017 at 9:48:35 AM EDT
>> To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>>
>>
>> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)
>>
>> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
>> Date: Sunday, Apr 16, 2017, 8:50 PM
>> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
>> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Hi Gadi, Scott,
>>
>> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>>
>> Ron
>> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:
>>
>> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>>

>> On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:
>>
>> Hi Ron, Gadi,
>>
>> I hope you are enjoying the long weekend.
>>
>> As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
>>
>> Thanks,
>> Scott
>>
>> -----Original Message-----
>> From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
>> Sent: April-15-17 1:16 PM
>> To: Nelms, Scott (MOF)
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> Scott,
>> It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
>> Thanks,
>> Ken
>>
>> -----Original Message-----
>> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
>> Sent: Thursday, April 13, 2017 8:19 PM
>> To: RYFA Ken -TREASURY
>> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
>> Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>>
>> *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
>>
>> Hi Ryan,
>>
>> I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
>>
>> Thanks,
>> Scott
>>
>>
>> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
>>
>> From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
>> Date: Thursday, Apr 13, 2017, 6:50 PM
>> To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
>> Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
>> Subject: Fair Hydro Plan - question on taxation
>>
>> Scott,
>>
>> I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
>>
>> 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
>>
>> Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
>>
>> Hope this helps.
>> Thanks,
>> Ken
>>
>>
>> _____
>>
>> _____
>>
>> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>>
>>
>> ----------
>>
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>>
>> _____
>>
>> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 9:20:51 AM

Would 10 work?

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Friday, April 21, 2017 8:03 AM
To: Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Would you mind coming by? How about 10:30?

> On Apr 20, 2017, at 5:18 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
> Yep whatever works - im happy to come that way if it's easier just lemme know what works best
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 5:17 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Ok, good. Closer than I thought or maybe we can meet half way.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 5:16 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Were at 375 University (just south of Dundas)
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 5:15 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Where are you located....I might come by if I can.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 5:09 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Yep I'm free al day
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:46 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Could we chat again tomorrow?
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:24 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:19 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.
>
> Our concern is - whatever we do we want to ensure Energy is onside.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:12 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Great - thx!
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:02 PM
> To: Montgomery, Kaitlin (MOF)

> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Yup, I gave him a call just before that call with TBS. I think he's got enough background now.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:01 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hey John - were you able to speak to rob?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: John Kim <John.Kim@ofina.on.ca>
> Sent: Thursday, April 20, 2017 11:38 AM
> To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
> Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Hi Rob,
>
> I will give you a call this afternoon.
>
> John
>
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> Sent: Thursday, April 20, 2017 11:26 AM
> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
> Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>
> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> Sent: April 20, 2017 9:21 AM
> To: Lewis, Robin (MOF)
> Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Scott, Rob,
>
> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>
> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>
> Ron
>
> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
>
> The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>
> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>
> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>
> This matter ought to be the subject of a ruling request.
>
> Regards,
>
> Rob Lewis
>
> From: Nelms, Scott (MOF)
> Sent: April 19, 2017 5:48 PM
> To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice, Scott
>
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>
>
>
>
> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> Sent: April 18, 2017 9:24 AM
> To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara

> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> Please loop in John and Bruno too.
>
> Thanks,
> Ron
>
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> Sent: April-17-17 12:53 PM
> To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Certainly. Will do.
>
> From: Subrahmanyan, Sriram (MOF)
> Sent: April-17-17 12:52 PM
> To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Could you include Rob in your discussions, so we know exactly what they're proposing?
>
> From: Nelms, Scott (MOF)
> Sent: April 17, 2017 12:50 PM
> To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>
> From: Subrahmanyan, Sriram (MOF)
> Sent: April-17-17 12:11 PM
> To: Kwan, Ronald (OFA)
> Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Ronald Kwan
> Sent: Monday, April 17, 2017 10:44 AM
> To: Subrahmanyan, Sriram (MOF)
> Cc: Nelms, Scott (MOF)
> Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Hi Sriram,
>
> See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.
>
> Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).
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> Note that the timelines for drafting legislation generally for the Plan is very tight.
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> Would Ann and Rob be the right people to loop in on this?
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> Date: April 17, 2017 at 9:48:35 AM EDT
> To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
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>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
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> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
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> On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:
>
> Hi Ron, Gadi,
>

> I hope you are enjoying the long weekend.
>
> As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
>
> Thanks,
> Scott
>
> -----Original Message-----
> From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> Sent: April-15-17 1:16 PM
> To: Nelms, Scott (MOF)
> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Scott,
> It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> Thanks,
> Ken
>
> -----Original Message-----
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> Sent: Thursday, April 13, 2017 8:19 PM
> To: RYFA Ken -TREASURY
> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
>
> Hi Ryan,
>
> I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
>
> Thanks,
> Scott
>
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
>
> From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><<mailto:ken.ryfa@opg.com>>
> Date: Thursday, Apr 13, 2017, 6:50 PM
> To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><<mailto:Scott.Nelms@ontario.ca>>
> Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><<mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><<mailto:tyler.mcauley@opg.com>>
> Subject: Fair Hydro Plan - question on taxation
>
> Scott,
>
> I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
>
> 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
>
> Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
>
> Hope this helps.
> Thanks,
> Ken
>
>
> _____
>
> _____
>
> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>
>
> ----------
>
> THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.
>
> _____
>
> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 8:03:18 AM

Would you mind coming by? How about 10:30?

> On Apr 20, 2017, at 5:18 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
> Yep whatever works - im happy to come that way if it's easier just lemme know what works best
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 5:17 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Ok, good. Closer than I thought or maybe we can meet half way.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 5:16 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Were at 375 University (just south of Dundas)
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 5:15 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Where are you located....I might come by if I can.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 5:09 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Yep I'm free al day
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:46 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Could we chat again tomorrow?
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:24 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:19 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.
>
> Our concern is - whatever we do we want to ensure Energy is onside.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:12 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Great - thx!
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> Original Message
> From: John Kim
> Sent: Thursday, April 20, 2017 4:02 PM
> To: Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Yup, I gave him a call just before that call with TBS. I think he's got enough background now.
>
> -----Original Message-----
> From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
> Sent: Thursday, April 20, 2017 4:01 PM
> To: John Kim <John.Kim@ofina.on.ca>
> Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

>
> Hey John - were you able to speak to rob?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: John Kim <John.Kim@ofina.on.ca>
> Sent: Thursday, April 20, 2017 11:38 AM
> To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
> Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Hi Rob,
>
> I will give you a call this afternoon.
>
> John
>
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> Sent: Thursday, April 20, 2017 11:26 AM
> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
> Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.
>
> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> Sent: April 20, 2017 9:21 AM
> To: Lewis, Robin (MOF)
> Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Scott, Rob,
>
> Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?
>
> Scott, if you're busy, staff here could provide Rob some context if you're not available.
>
> Ron
>
> On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
> Scott,
>
> The proposal appears to have some characteristics of a tax avoidance scheme.
>
> The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.
>
> I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.
>
> We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.
>
> This matter ought to be the subject of a ruling request.
>
> Regards,
>
> Rob Lewis
>
> From: Nelms, Scott (MOF)
> Sent: April 19, 2017 5:48 PM
> To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
> Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Rob, John Bruno,
>
> Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.
>
> Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.
>
> Thanks very much and apologies for the short notice, Scott
>
>
> Scott Nelms
> Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
> w: (416) 212-6469 | c: (647) 330-2681
> scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>
>
>
>
> From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> Sent: April 18, 2017 9:24 AM
> To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi,
>
> Please loop in John and Bruno too.
>
> Thanks,
> Ron
>
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]

> Sent: April-17-17 12:53 PM
> To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Certainly. Will do.
>
> From: Subrahmanyan, Sriram (MOF)
> Sent: April-17-17 12:52 PM
> To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Could you include Rob in your discussions, so we know exactly what they're proposing?
>
> From: Nelms, Scott (MOF)
> Sent: April 17, 2017 12:50 PM
> To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
> Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.
>
> From: Subrahmanyan, Sriram (MOF)
> Sent: April-17-17 12:11 PM
> To: Kwan, Ronald (OFA)
> Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.
> From: Ronald Kwan
> Sent: Monday, April 17, 2017 10:44 AM
> To: Subrahmanyan, Sriram (MOF)
> Cc: Nelms, Scott (MOF)
> Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
>
> Hi Sriram,
>
> See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.
>
> Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).
>
> Note that the timelines for drafting legislation generally for the Plan is very tight.
>
> Scott N. will ask for more detail from OPG.
>
> Would Ann and Rob be the right people to loop in on this?
>
> Ron
>
> Begin forwarded message:
> From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
> Date: April 17, 2017 at 9:48:35 AM EDT
> To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.
>
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)
>
> From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
> Date: Sunday, Apr 16, 2017, 8:50 PM
> To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
> Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Hi Gadi, Scott,
>
> I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.
>
> Ron
> On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:
>
> Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.
>
> On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:
>
> Hi Ron, Gadi,
>
> I hope you are enjoying the long weekend.
>
> As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.
>
> Thanks,
> Scott
>
> -----Original Message-----

> From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
> Sent: April-15-17 1:16 PM
> To: Nelms, Scott (MOF)
> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
>
> Scott,
> It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
> Thanks,
> Ken
>
> -----Original Message-----
> From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> Sent: Thursday, April 13, 2017 8:19 PM
> To: RYFA Ken -TREASURY
> Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
> Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation
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> *** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***
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> Hi Ryan,
>
> I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?
>
> Thanks,
> Scott
>
>
> Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)
>
> From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
> Date: Thursday, Apr 13, 2017, 6:50 PM
> To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
> Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
> Subject: Fair Hydro Plan - question on taxation
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> Scott,
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> I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):
>
> 4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.
>
> Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.
>
> Hope this helps.
> Thanks,
> Ken
>
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From: Montgomery, Kaitlin (MOF)
To: Robin Lewis (MOF)
Cc: Bruno Amara; Ann Langleben (MOF); John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 5:28:53 PM

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice,
Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance
7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 5:18:53 PM

Yep whatever works - im happy to come that way if it's easier just lemme know what works best

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 5:17 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Ok, good. Closer than I thought or maybe we can meet half way.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:16 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Were at 375 University (just south of Dundas)

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 5:15 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Where are you located....I might come by if I can.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:09 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yep I'm free al day

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:46 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could we chat again tomorrow?

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:24 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:19 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

Our concern is - whatever we do we want to ensure Energy is onside.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:12 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

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From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
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Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
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Scott, if you're busy, staff here could provide Rob some context if you're not available.

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We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>

Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

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Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
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On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
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-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV

Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Thanks,
Ken

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Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.

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_____

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Montgomery, Kaitlin (MOF)
To: John Kim
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Thursday, April 20, 2017 5:16:27 PM

Were at 375 University (just south of Dundas)

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 5:15 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Where are you located....I might come by if I can.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:09 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yep I'm free al day

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:46 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could we chat again tomorrow?

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:24 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

For sure - im happy to sit in on any calls/meetings. I have consistent meetings with ENE so im happy to test things as they arise

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Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:19 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Btw, we need to get you more involved in our internal OFA discussions, eh. Not sure how best to do it.

Our concern is - whatever we do we want to ensure Energy is onside.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:12 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Great - thx!

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:02 PM
To: Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Yup, I gave him a call just before that call with TBS. I think he's got enough background now.

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 4:01 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: Fw: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hey John - were you able to speak to rob?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: John Kim <John.Kim@ofina.on.ca>
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>

Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
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Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

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Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Hi Ryan,

I appreciate the explanation. I want to make sure I understand the scope of the exclusion. Does this exempt any earnings in the trust and any earnings that OPG derives from the trust (interest income) from both income tax and PILs?

Thanks,
Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com><mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

_____

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From: Montgomery, Kaitlin (MOF)
To: Robin Lewis (MOF); John Kim
Cc: Bruno Amara; Ann Langleben (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation
Date: Friday, April 21, 2017 7:13:51 PM

Hi there - just checking in. Any idea when you might be able to provide comments?

Thanks,
Kaitlin

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: Lewis, Robin (MOF)
Sent: Friday, April 21, 2017 11:14 AM
To: Kim, John (OFA); Montgomery, Kaitlin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

John,

We do not have a draft as yet.

I understand that not all of the design features of the asset have been finalized.

Our considerations will be limited to those concerning a PII exemption for the income from the SPV.

Regards,

Rob

-----Original Message-----
From: John Kim [mailto:John.Kim@ofina.on.ca]
Sent: April 21, 2017 11:08 AM
To: Montgomery, Kaitlin (MOF); Lewis, Robin (MOF)
Cc: Bruno Amara; Langleben, Ann (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

Happy to take a look at the draft.

Thanks,

John

-----Original Message-----
From: Montgomery, Kaitlin (MOF) [mailto:Kaitlin.Montgomery@ontario.ca]
Sent: Thursday, April 20, 2017 5:29 PM
To: Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: Bruno Amara <Bruno.Amara@ofina.on.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; John Kim <John.Kim@ofina.on.ca>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I understand you were able to connect with John today. Let us know if you have any further questions.

Just wanted to reiterate Scotts message below. Our timing is quite tight so we'd appreciate any comments you could provide tomorrow. Please also let us know if anyone else should be looped in.

Thanks in advance,
Kaitlin

From: John Kim
Sent: Thursday, April 20, 2017 11:38 AM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA); Lewis, Robin (MOF)
Cc: Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob,

I will give you a call this afternoon.

John

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 20, 2017 11:26 AM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca>; Ann Langleben (MOF) <Ann.Langleben@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

My day is jammed so please go ahead and chat as soon as possible. Include us on the invite and we will try to make it. If helpful we can also have a follow on with ENE, OPG, Torys.

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 20, 2017 9:21 AM
To: Lewis, Robin (MOF)
Cc: Nelms, Scott (MOF); Kim, John (OFA); Bruno Amara; Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Scott, Rob,

Would it be helpful to have a call so that TPD can get some more context on the proposed Fair Hydro Plan and proposed structure?

Scott, if you're busy, staff here could provide Rob some context if you're not available.

Ron

On Apr 20, 2017, at 8:46 AM, Lewis, Robin (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>> wrote:
Scott,

The proposal appears to have some characteristics of a tax avoidance scheme.

The Electricity Act, 1998 applies to OPG and its subsidiaries but not a trust. The trust would appear to be subject to regular income tax. However, a trust gets a deduction in computing income for any income paid to a beneficiary. The trust will pay no income tax to the extent that the trust pays out net income to the beneficiaries. Regular tax will not apply on the distribution of income to OPG because OPG is exempt from regular tax.

I would expect that the income would normally be included in the income of the OPG subsidiary for PIL purposes. I suspect that funds borrowed by the trust may generate significant tax shelter such that the income of the trust will be negligible.

We will certainly need more information. In particular, the nature of the asset that is being acquired and the vendor. SPV's are generally used to move assets off balance sheet.

This matter ought to be the subject of a ruling request.

Regards,

Rob Lewis

From: Nelms, Scott (MOF)
Sent: April 19, 2017 5:48 PM
To: Lewis, Robin (MOF); Kim, John (OFA); Bruno Amara
Cc: Kwan, Ronald (OFA); Subrahmanyan, Sriram (MOF); Langleben, Ann (MOF); Montgomery, Kaitlin (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Rob, John Bruno,

Further to the emails below, I received from OPG the attached draft changes to pertinent legislation. These are somewhat broader than the tax / PILs specific elements. I am hoping you get you something more focused, but in the interest of time I thought I would share this version. These changes are essentially consistent with the earlier descriptions below in terms of content. My understanding is that OPG Trust is unlikely to generate significant (non-PILs applied) revenues, so this is largely an administrative change designed to avoid unintended consequences arising from potentially large, unrealized gains associated with swaps etc.

Please let me know if we should loop anyone else into this conversation (e.g. MoF legal) and whether you would benefit from a conversation with OPG, Torys (OPG's external counsel) and ENE legal directly. I am also available to answer questions on concept. As John knows, all of this is moving extremely quickly so comments as soon as possible would be extremely helpful. My legal colleagues only semi-joking suggested yesterday would be ideal. In the mean time the draft legislation will continue to take up these concepts as they are currently written.

Thanks very much and apologies for the short notice, Scott

Scott Nelms
Electricity Investment and Governance Secretariat | Ministry of Finance 7th Floor | 375 University ave. | Toronto, ON
w: (416) 212-6469 | c: (647) 330-2681
scott.nelms@ontario.ca<mailto:scott.nelms@ontario.ca>

From: Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
Sent: April 18, 2017 9:24 AM
To: Nelms, Scott (MOF); Subrahmanyan, Sriram (MOF)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF); Kim, John (OFA); Bruno Amara
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi,

Please loop in John and Bruno too.

Thanks,
Ron

From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: April-17-17 12:53 PM
To: Sriram Subrahmanyan (MOF) <Sriram.Subrahmanyan@ontario.ca<mailto:Sriram.Subrahmanyan@ontario.ca>>; Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Cc: Ann Langleben (MOF) <Ann.Langleben@ontario.ca<mailto:Ann.Langleben@ontario.ca>>; Robin Lewis (MOF) <Robin.Lewis@ontario.ca<mailto:Robin.Lewis@ontario.ca>>; Daniela Klassen (MOF) <Daniela.Klassen@ontario.ca<mailto:Daniela.Klassen@ontario.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Certainly. Will do.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:52 PM
To: Nelms, Scott (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Could you include Rob in your discussions, so we know exactly what they're proposing?

From: Nelms, Scott (MOF)
Sent: April 17, 2017 12:50 PM
To: Subrahmanyan, Sriram (MOF); Kwan, Ronald (OFA)
Cc: Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Thanks Sriram. We still working with OPG and Torys to understand what exactly they are requesting and why. Based on conversations so far, I think the risk of creating a loophole should be limited, as net revenues from the Trust would be subject to PILs once they flow up from the sub into to OPG corporate entity.

From: Subrahmanyan, Sriram (MOF)
Sent: April-17-17 12:11 PM
To: Kwan, Ronald (OFA)
Cc: Nelms, Scott (MOF); Langleben, Ann (MOF); Lewis, Robin (MOF); Klassen, Daniela (MOF)
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

I'll let Rob weigh in on this tomorrow, but I have the same question as Gadi. Will this be a loophole once they start making profits?

Sent from my BlackBerry 10 smartphone on the Rogers network.
From: Ronald Kwan
Sent: Monday, April 17, 2017 10:44 AM
To: Subrahmanyan, Sriram (MOF)
Cc: Nelms, Scott (MOF)
Subject: Fwd: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Sriram,

See the email chain on a tax / PILs exempt ask by OPG with respect to the OPG Trust / special purpose vehicle (SPV) for the Fair Hydro Plan.

Perhaps to over-simplify, The SPV would be a new OPG subsidiary that would, in part, obtain financing from the capital markets in order to have the funds to acquire a regulatory asset from the IESO so that the IESO can cover the difference between what it is paying generators and what it is passing through to consumers under the "global adjustment" mechanism. The regulatory asset is the IESO's right to collect from consumers in the future the amounts to cover the global adjustment deferral (including a financing cost).

Note that the timelines for drafting legislation generally for the Plan is very tight.

Scott N. will ask for more detail from OPG.

Would Ann and Rob be the right people to loop in on this?

Ron

Begin forwarded message:
From: "Nelms, Scott (MOF)" <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>>
Date: April 17, 2017 at 9:48:35 AM EDT
To: "Kwan, Ronald (OFA)" <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca>>
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation Thanks Ron. Do you mind reaching out? We probably need to land this in the next few days. I'll let OPG know that we may need to get them to provide TPD with a more detailed explanation.

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=>)

From: Ronald Kwan <Ronald.Kwan@ofina.on.ca<mailto:Ronald.Kwan@ofina.on.ca><mailto:Ronald.Kwan@ofina.on.ca>>
Date: Sunday, Apr 16, 2017, 8:50 PM
To: Mayman, Gadi (OFA) <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca><mailto:Gadi.Mayman@ofina.on.ca>>, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Subject: Re: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Hi Gadi, Scott,

I'd think we'd need to loop in TPD on this as well, to get the drafting right, and see about any such policy concerns.

Ron
On Apr 16, 2017, at 5:01 PM, Gadi Mayman <Gadi.Mayman@ofina.on.ca<mailto:Gadi.Mayman@ofina.on.ca>> wrote:

Ron always understands the nature of these sorts of complexities around electricity financing way better than I do, so I'm sure he'll have more thoughts or questions, but the only one that comes to mind for me is how this would be structured in legislation to ensure that there isn't the ability for OPG to move income to the non-taxable (I don't think there is a term "non-PiLable") entity from the taxable part of the company? This may seem nit-picky, but in the past I believe we've seen both Hydro One, when it was 100% government owned, and OPG behave the same way as private companies would, and spend considerable time having their accountants endeavour to minimize their PiLs.

On Apr 16, 2017, at 4:25 PM, Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca>> wrote:

Hi Ron, Gadi,

I hope you are enjoying the long weekend.

As outlined in the chain below, OPG has requested to make tax-exempt / PILs exempt any net earnings of the OPG SPV. It is not anticipated that the trust itself would earn substantial revenues (as explained to me, this would be limited to swap spreads, currency fluctuations etc.). Any revenues that OPG would receive from the trust would be subject to PILs, therefore I'm not sure this will make any difference to the Province. Please let me know if you have any concerns.

Thanks,
Scott

-----Original Message-----
From: RYFA Ken -TREASURY [mailto:ken.ryfa@opg.com]
Sent: April-15-17 1:16 PM
To: Nelms, Scott (MOF)
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: RE: EXTERNAL - RE: Fair Hydro Plan - question on taxation

Scott,
It is meant to exempt the net earnings of the trust. Any income OPG earns from its services to the trust would still be subject to taxation. As well, revenue that OPG receives from the subordinated debt to the trust would be subject to taxation.
Thanks,
Ken

-----Original Message-----
From: Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
Sent: Thursday, April 13, 2017 8:19 PM
To: RYFA Ken -TREASURY
Cc: LEE John -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV
Subject: EXTERNAL - RE: Fair Hydro Plan - question on taxation

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Hi Ryan,

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Scott

Sent with BlackBerry Work (www.blackberry.com[blackberry.com]<https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwMF_Q&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=gnUWo_-TMYHInYGotFSVUeME079wlrLS3F4NUsT5rSs&s=2rAtKcAsTxHd8cM8jga68kJD-lWD3LWQMr31Kj552j0&e=><https://urldefense.proofpoint.com/v2/url?u=http-3A__www.blackberry.com&d=DwIFAg&c=qG_YucLTZOaBAapRaQkKEgrMWFFI0Cr1_eykjn9FtiQ&r=lYqulJJnqfxO5431Uw8ghWAHz6F3PkI2znI7RPACN08&m=W0k_4kNuPNJN_6TZn4rIOM7LTF4B-uGuho5_rvUxBLo&s=x4GAuzXajASWIUPlZ6p_Ks89Zg109ntjasiRYLBGTro&e= >)

From: RYFA Ken -TREASURY <ken.ryfa@opg.com<mailto:ken.ryfa@opg.com><mailto:ken.ryfa@opg.com>>
Date: Thursday, Apr 13, 2017, 6:50 PM
To: Nelms, Scott (MOF) <Scott.Nelms@ontario.ca<mailto:Scott.Nelms@ontario.ca><mailto:Scott.Nelms@ontario.ca>>
Cc: LEE John -TREASURY <john.s.lee@opg.com<mailto:john.s.lee@opg.com><mailto:john.s.lee@opg.com>>, WONG Leslie -LAWDIV <leslie.wong@opg.com<mailto:leslie.wong@opg.com>

<mailto:leslie.wong@opg.com>>, MCAULEY Tyler -LAWDIV <tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com><<mailto:tyler.mcauley@opg.com>>
Subject: Fair Hydro Plan - question on taxation

Scott,

I understand there was a question regarding the taxation exclusion reference in Summary document. I understand this question is in reference to the following footnote (which is footnote 4 on page 5):

4 MOE to confirm that the legislation will provide that any Financing Entity that is a wholly-owned subsidiary of OPG (1) would not be subject to Part VI of the Electricity Act (Ontario) and (2) in the case of any Financing Entity that is a trust, any income of such trust (for purposes of the Income Tax Act (Canada) or the Taxation Act, 2007 Ontario)) which is paid or made payable to OPG or a wholly-owned subsidiary of OPG as a beneficiary of such trust will not be taken into account in calculating the amount of a payment required to be made by OPG (or such subsidiary) by section 89 or 90 of the Electricity Act.

Overall it is expected that the financing entity, either as a trust or a corporation, will have minimal net income. However, there could be tax situations creating a larger income or loss due to differences in timing or treatment (income vs capital). Given the unique nature of the transaction and lack of precedent to guide treatment then there are uncertainties with respect to tax. The objective is to minimize the tax consequences on both entities hence the request identified in the footnote.

Hope this helps.
Thanks,
Ken

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From: Ronald Kwan
To: Bruno Amara
Cc: Gavin He; John Kim
Subject: Re: Edits from Bevan
Date: Saturday, April 15, 2017 8:05:45 PM

Hi,

Please review Energy's deck for the media on March 2nd.

Ron

On Apr 15, 2017, at 7:47 PM, Bruno Amara <Bruno.Amara@ofina.on.ca> wrote:

> Hi Ron
>
> I only recall seeing the "$2.5b per year on average" Below is news release language. I also checked ENE's cab sub. I don't recall seeing the alternate "$25b over ten years". I'll let you know if I come across anything else.
>
> Under current forecasts, the immediate reduction in the GA would be about $2.5 billion per year on average over the first 10 years, with annual interest costs not exceeding $1.4 billion.

From: Ronald Kwan
Sent: Saturday, April 15, 2017 7:25 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Edits from Bevan

Hi,

Please review and was there other messaging?

Thanks,
Ron

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** April 15, 2017 at 7:23:44 PM EDT
> **To:** "Tim Schuurman (MOF)" <Tim.Schuurman@ontario.ca>
> **Cc:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>, "Scott Thompson (CAB)" <Scott.Thompson@ontario.ca>, "Ronald Jaikaran (MOF)"

<Ronald.Jaikaran@ontario.ca>, "Selena Esmail (MOF)" <Selena.Esmail@ontario.ca>, "Rowe, Alana (MOF)" <Alana.Rowe@ontario.ca>, "David McLean (MOF)" <David.McLean@ontario.ca>
Subject: Re: Edits from Bevan

Hi,

My recollection is that the $2.5 billion on average over ten years was used in Energy's deck for the media and that was then used to brief the FAO staff and I thought was provided to the AG staff too.

I don't recall other messaging used for that.

I will double- check.

Ron

> On Apr 15, 2017, at 5:21 PM, Schuurman, Tim (MOF) <Tim.Schuurman@ontario.ca> wrote:
>
> Ron, Gadi - these two follow ups are for you guys. If you could help us out by getting us some info and suggested wording by Monday at 10am, we can build it into the papers for final sign off.
>
> Tim
>
> From: Ingram, Kelsey (MOF) <Kelsey.Ingram@ontario.ca>
> Sent: Saturday, April 15, 2017 3:06 PM
> To: Jaikaran, Ronald (MOF); Rowe, Alana (MOF)
> Cc: Schuurman, Tim (MOF); Jackson, Kelly (MOF); Mendes, Elizabeth (MOF)
> Subject: Edits from Bevan
>
> Hey Ron and Alana,
>
> Please see below some notes/edits from Bevan. Is it possible to incorporate the first three edits for Monday's sign off?

Also we're expecting PO to get back to us on the name for KidsPharma as well as providing further language /detail on the Basic Income sites and the pilot project itself. I'll touch base with you guys as soon as I know more. We've been clear we need them to follow up by Monday morning.

Happy to discuss!

Cheers,

Kelsey

1 - On page 5 of Chapter 2 for the Fair Hydro Plan:

It currently reads: the reduction in the GA charge would be about 2.5B per year on average over the first ten years.

This is factually true but is not how we are presenting this (and I realise it is not as written about costs) as it might imply the cost is an additional 25B for the first and the following ten years which is not true for example. So we use 25B as total cost over x years. Or something like that. We had aproved language.

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(this one is anticipating what the primary critique will be of our fiscal plan and trying to proactively defend our

record...if we don't have time to incorporate it, we can look to include info into our comms materials).

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Ronald Kwan
To: John Kim
Cc: Bruno Amara; Gavin He
Subject: Re: Edits from Bevan
Date: Saturday, April 15, 2017 10:13:30 PM

Hi John,

Whole I think it is good to explain that the point has been used, it may be that the PO may want to stop using it.

Is there some other message line that has been used on the deferral benefit to consumers, and, on cost, other than the interest one, which is just an amount given an assumed interest rate (and assuming interest capitalization).

Alternatively, the point could be suggested to be dropped, with no replacement?

Ron

On Apr 15, 2017, at 8:37 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> You're right on Energy's media deck on March 2nd. It has been confusing as the interest cost figure that has been in the media has a similar sound to it.
>
> We would be happy to see it put to rest based on the deck. :)
>
> John
>
> ---
>
> **From:** Ronald Kwan
> **Sent:** April-15-17 8:06 PM
> **To:** Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Cc:** Gavin He <Gavin.He@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
> **Subject:** Re: Edits from Bevan
>
> Hi,
>
> Please review Energy's deck for the media on March 2nd.
>
> Ron
>
> On Apr 15, 2017, at 7:47 PM, Bruno Amara <Bruno.Amara@ofina.on.ca> wrote:
>
> > Hi Ron

I only recall seeing the “$2.5b per year on average” Below is news release language. I also checked ENE’s cab sub. I don’t recall seeing the alternate “$25b over ten years”. I’ll let you know if I come across anything else.

Under current forecasts, the immediate reduction in the GA would be about $2.5 billion per year on average over the first 10 years, with annual interest costs not exceeding $1.4 billion.

From: Ronald Kwan
Sent: Saturday, April 15, 2017 7:25 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Edits from Bevan

Hi,

Please review and was there other messaging?

Thanks,
Ron

Begin forwarded message:

> **From:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Date:** April 15, 2017 at 7:23:44 PM EDT
> **To:** "Tim Schuurman (MOF)" <Tim.Schuurman@ontario.ca>
> **Cc:** Gadi Mayman <Gadi.Mayman@ofina.on.ca>, "Scott Thompson (CAB)" <Scott.Thompson@ontario.ca>, "Ronald Jaikaran (MOF)" <Ronald.Jaikaran@ontario.ca>, "Selena Esmail (MOF)" <Selena.Esmail@ontario.ca>, "Rowe, Alana (MOF)" <Alana.Rowe@ontario.ca>, "David McLean (MOF)" <David.McLean@ontario.ca>
> **Subject: Re: Edits from Bevan**
>
> Hi,
>
> My recollection is that the $2.5 billion on average over ten years was used in Energy's deck for the media and that was then used to brief the FAO staff and I thought was provided to the AG staff too.

I don't recall other messaging used for that.

I will double- check.

Ron

> On Apr 15, 2017, at 5:21 PM, Schuurman, Tim (MOF) <Tim.Schuurman@ontario.ca> wrote:
>
> Ron, Gadi - these two follow ups are for you guys. If you could help us out by getting us some info and suggested wording by Monday at 10am, we can build it into the papers for final sign off.
>
> Tim
>
> From: Ingram, Kelsey (MOF) <Kelsey.Ingram@ontario.ca>
>
> Sent: Saturday, April 15, 2017 3:06 PM
>
> To: Jaikaran, Ronald (MOF); Rowe, Alana (MOF)
>
> Cc: Schuurman, Tim (MOF); Jackson, Kelly (MOF); Mendes, Elizabeth (MOF)
>
> Subject: Edits from Bevan
>
> Hey Ron and Alana,
>
> Please see below some notes/edits from Bevan. Is it possible to incorporate the first three edits for Monday's sign off?
>
> Also we're expecting PO to get back to us on the name for KidsPharma as well as providing further language /detail on the Basic Income sites and the pilot project itself. I'll touch base with you guys as soon as I know more. We've been clear we need them to follow up by Monday morning.

Happy to discuss!

Cheers,

Kelsey

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have time to incorporate it, we can look to include info into our comms materials).

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Francisco Chinchon
To: Ronald Kwan
Cc: John Kim
Subject: Re: Electricity Outlook
Date: Tuesday, March 07, 2017 9:00:42 AM

Hi,

We are good too. I did share the latest AO slides with OEP and OTB and staff have been communicating.

What takes more time for staff to fully grasp is how the unpacking of the multiple sales affect each line although neutral on aggregate.

Thanks,

Francisco

On Mar 7, 2017, at 8:49 AM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

> Hi,
>
> For sure. Last Friday would have been better.
>
> Ron
>
> On Mar 7, 2017, at 8:41 AM, John Kim <John.Kim@ofina.on.ca> wrote:
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> > Hi Ron,
> >
> > Brampton is in AO….and we're both at 70%.
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> > We can coordinate the sending for sure, yes. We're planning to call a meeting of OB and OEP, as well as TBS to ensure we're all on the same page.
> >
> > The sooner the better would be my advice.
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> > John.
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> > **From:** Ronald Kwan
> > **Sent:** Tuesday, March 07, 2017 8:29 AM
> > **To:** John Kim <John.Kim@ofina.on.ca>
> > **Cc:** Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> > **Subject:** Re: Electricity Outlook

Hi John,

Miscommunication in what way? That Brampton should or should not be in the Electricity Outlook to be consistent with the AO outlook, and on Hydro One's 70%?

And is SIFB ready to go to send a new version in if they are rebasing to 70% too?.

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Subject: FW: Electricity Outlook

Pls. see attached.

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I used FTD's forecast for 2017-18 to 2019-20 and then used our conservative interest income for 2020-21 of 135 (based on 3.5% interest) as a placeholder until FTD does their number.

John.

From: John Kim
Sent: Friday, March 03, 2017 3:31 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
Subject: RE: Electricity Outlook

Thanks Bruno…..just changed the yellow highlighted part on the Revenue (Risk) tab. Let me know if what I did makes sense pls.

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Hi John

See updated outlook attached. Never mind my earlier comments. As Adam notes the only change is that we have info now to split out the head office sale impact between NI and PILs.

Bruno

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Subject: RE: Electricity Outlook

Hello Bruno,

Here is the updated outlook for your review. The only change was in how the head office sale was split between PILS and net income for OPG, so there are no changes in the total change from 2016 budget.

Kind regards,

Adam Prokop

From: Bruno Amara
Sent: Friday, March 03, 2017 11:08 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Subject: Electricity Outlook

Hi John

Attached is the updated outlook reflecting Ron's comments on the risk page. Note that there is a new Cover Sheet per request from

TBS/OB.

S:\Users\CEF\Hydro 2017\OEFC\RbP\Outlook\02. February

Bruno

Gavin, we picked up the revised DRC forecast.

From: Ronald Kwan
To: Francisco Chinchon
Cc: John Kim
Subject: Re: Electricity Outlook
Date: Tuesday, March 07, 2017 9:08:59 AM

Hi Francisco, John,

Would it be helpful to send the two underlying spreadsheets together, noting the pivot to 70%, which is fiscally-neutral across the two products, but shown for interim actuals purposes to be closer to Public Accounts?

And note as well the OPG number adjustments to match the IOD adjustment (assuming those have gone up?).

Please bcc me.

Thanks,
Ron

On Mar 7, 2017, at 9:00 AM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:

> Hi,
>
> We are good too. I did share the latest AO slides with OEP and OTB and staff have been communicating.
>
> What takes more time for staff to fully grasp is how the unpacking of the multiple sales affect each line although neutral on aggregate.
>
> Thanks,
>
> Francisco
>
> On Mar 7, 2017, at 8:49 AM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:
>
> > Hi,
> >
> > For sure. Last Friday would have been better.
> >
> > Ron
> >
> > On Mar 7, 2017, at 8:41 AM, John Kim <John.Kim@ofina.on.ca> wrote:

Hi Ron,

Brampton is in AO….and we're both at 70%.

We can coordinate the sending for sure, yes. We're planning to call a meeting of OB and OEP, as well as TBS to ensure we're all on the same page.

The sooner the better would be my advice.

John.

From: Ronald Kwan
Sent: Tuesday, March 07, 2017 8:29 AM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: Re: Electricity Outlook

Hi John,

Miscommunication in what way? That Brampton should or should not be in the Electricity Outlook to be consistent with the AO outlook, and on Hydro One's 70%?

And is SIFB ready to go to send a new version in if they are rebasing to 70% too?.

Looping in Francisco.

Thanks,
Ron

On Mar 7, 2017, at 7:25 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> We are ready to go. Brampton was a miscommunication between staff.
>
> If okay with you we will start the outreach to ensure other divisions are incorporating properly.
>
> Thanks
>
> John

On Mar 7, 2017, at 7:00 AM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

Hi John,

What's the status of this?

Thanks,
Ron

From: Ronald Kwan
Sent: March-03-17 6:00 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Electricity Outlook

Hi John,

As discussed, please track down and confirm the coordination question with SIFB on H1 and Brampton/Alectra MEU PILs. On the latter, I wonder if they too will have a large tax shield, so we might not be getting the 5 in out years – and it might be a negative variance for a number of years.

Also, I started a footnote on the GA impact on OPG. Should have added too, for clarity, that all the offset impact is shown in net income, but likely would be split between net income and PILs.

We need to generate GA financing / equity returns risks on to the revenue risks tab.

Thanks,
Ron

From: John Kim
Sent: March-03-17 17:16

To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Subject: RE: Electricity Outlook

Yes, that is the case….that had been assumed for a long time. We've moved to coordinating on 70% for 2-3 weeks now.

John.

From: Ronald Kwan
Sent: Friday, March 03, 2017 5:13 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Electricity Outlook

Hi John,

But what has changed on the Hydro One side and SIFB`s AO numbers?

I was thinking the two branches had been coordinating on an on-going basis --- so if the EFB numbers were using 84% as the baseline, the AO numbers would be net of more forgone net income. And if the EFB file is at 70%, then the SIFB AO forgone revenue numbers would be net of less forgone revenue.

Is that the case as each branch has been sending up files, this month versus last?

Ron

From: John Kim
Sent: March-03-17 17:07
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>

Subject: RE: Electricity Outlook

Hi Ron,

Yes, we're now working on the 70% baseline. The numbers are generally the same.

NUG numbers changed somewhat.

The Bampton PILs is there.

Unpacked the PILs impact of the office sale.

So, generally the information has not changed significantly. I'd characterize as the 70% baseline and house-keeping.

John.

From: Ronald Kwan
Sent: Friday, March 03, 2017 5:04 PM
To: John Kim <John.Kim@ofina.on.ca>
Subject: RE: Electricity Outlook

Hi,

Are we now working on a 70% baseline, and coordinated with the AO numbers? What changed since the early February file and numbers coordination?

Ron

From: John Kim
Sent: March-03-17 16:03
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: Gavin He

<Gavin.He@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
Subject: FW: Electricity Outlook

Pls. see attached.

Thanks,

John.

From: John Kim
Sent: Friday, March 03, 2017 3:56 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: Adam Prokop <Adam.Prokop@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>
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S:\Users\CEF\Hydro 2017\OEFC\RbP\Outlook\02. February

Bruno

Gavin, we picked up the revised DRC forecast.

From:	Veinot, Cindy (TBS)
To:	Ken Kandeepan; Helen Graham (MOF)
Cc:	Felix Fung (MOF); Scott Nelms (ENERGY); Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Nadine Petsche (MOF)
Subject:	Re: Equity Financing
Date:	Saturday, April 22, 2017 10:48:00 AM

Agreed. OPG Trust has not yet been created.

The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.

The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.

Cindy

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: Ken Kandeepan
Sent: Saturday, April 22, 2017 10:08 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: Re: Equity Financing

Hi Helen

I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.

You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.

Thanks

Ken k

> On Apr 22, 2017, at 8:18 AM, Graham, Helen (TBS) <Helen.Graham@ontario.ca> wrote:
>
> Ken, we had understood 1.2 is possibly a go-forward number, but the correct amount for 17-18 should be prorated, as there will not be 12 months of activity. Is that correct?
>
> I thought the trust actually has already been created, but I could be wrong about that.
>
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> From: Ken Kandeepan
> Sent: Saturday, April 22, 2017 12:08 AM
> To: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
> Subject: RE: Equity Financing

>
>
> Hi All
>
> There seems to be considerable confusion on this issue and hopefully I can clear that up with this email.
>
>
> · The Trust has nothing to do with the Province, it will be created by OPG and will be consolidated with OPG, not with the Province and is essentially not an issue with regard to the estimates process.
>
> · The objective of this estimates exercise is to allow the Province, or more specifically the Ministry of Energy to invest a certain amount of funds in OPG. In other words the Province's equity investment in OPG will increase.
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> · The amount will be around $1.2 billion, however, Scott should able to provide a more precise number.
>
>
> Thanks and I am available for a discussion tomorrow, if anyone wishes further clarification, pls call me on my cell at 647-202-4373.
>
> Ken K
>
>
>
>
> From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
> Sent: Friday, April 21, 2017 8:30 PM
> To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
> Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
> Subject: RE: Equity Financing
>
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>
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>
> Thanks - happy to chat further.
>
> Felix
>
>
> From: Fung, Felix (TBS)
> Sent: April-21-17 8:17 PM
> To: Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John

(TBS)
> Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS)
> Subject: RE: Equity Financing
>
> Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:
>
> 1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
> 2) confirmation of the location of where this operating asset will show up (Ministry, admin data info)
> 3) a business case rationale explaining the purpose and why this is needed
>
> As per our conversation, we are currently in the midst of preparing for Printed Estimates - as such, we have an extremely short runway for this item to be included (we have until possibly Tuesday).
>
> Once we have the necessary information from you, we will then need to send it up to senior officials here, and also ensure that DMs of both Finance and Energy have an opportunity to review/sign off.
>
> Thanks - happy to chat further should you have any questions.
>
> Felix
>
>
>
> From: Strang, James (TBS)
> Sent: April-20-17 4:36 PM
> To: Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF)
> Cc: Graham, Helen (TBS); Fung, Felix (TBS); Hosick, Sarah (TBS)
> Subject: FW: Equity Financing
>
> Hi, I've highlighted on page one of the attached note what I was referring during the teleconference around financing the trust (51%, 49%).
>
> Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a decision point for TB to include a buffer. To what degree does the $2.5B have a buffer based on the level of precision in the estimate should also be covered.
>
> The TB submission needs to specify the rationale for the ask (explicitly identifying any buffer amounts being added), and the requested minute.
>
> James
>
> From: Fung, Felix (TBS)
> Sent: April 11, 2017 1:43 PM
> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> FYI
>
> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)
> Subject: FW: Equity Financing - Working Group Note

>
> The OFA note we received.
>
> From: Fung, Felix (TBS)
> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
>
>
> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>
> Regards,
> Salman
>
>
> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
>
> Greetings,
>
> Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.
>
> Kind regards,
>
> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
>
>
> _____
>
> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	Ken Kandeepan
To:	Helen Graham (MOF)
Cc:	Felix Fung (MOF); Scott Nelms (ENERGY); Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS); Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Veinot, Cindy (TBS); Nadine Petsche (MOF)
Subject:	Re: Equity Financing
Date:	Saturday, April 22, 2017 10:08:09 AM

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> Thanks - happy to chat further should you have any questions.

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> Felix
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> From: Strang, James (TBS)
> Sent: April-20-17 4:36 PM
> To: Kandeepan, Ken (OFA); Kim, John (OFA); Psinas, John (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF)
> Cc: Graham, Helen (TBS); Fung, Felix (TBS); Hosick, Sarah (TBS)
> Subject: FW: Equity Financing
>
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> Sent: April 11, 2017 1:43 PM
> To: Veinot, Cindy (TBS)
> Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
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> FYI
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> From: Strang, James (TBS)
> Sent: April-11-17 11:58 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
> The OFA note we received.
>
> From: Fung, Felix (TBS)
> Sent: April 4, 2017 10:47 AM
> To: Strang, James (TBS)
> Subject: FW: Equity Financing - Working Group Note
>
>
>
> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
> Sent: April-04-17 10:45 AM
> To: Fung, Felix (TBS)
> Cc: Bruno Amara; Adam Prokop
> Subject: FW: Equity Financing - Working Group Note
>
> Hi Felix,
>
> Forwarding this to you as well. Please see attached.
>

> Regards,
> Salman
>
>
> From: Adam Prokop
> Sent: Tuesday, April 04, 2017 10:38 AM
> To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
> Subject: Equity Financing - Working Group Note
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> Greetings,
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> Adam Prokop
> Economic Specialist
> Office: 416-315-6462
> adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>
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> This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From:	Graham, Helen (TBS)
To:	Ken Kandeepan; Felix Fung (MOF); Scott Nelms (ENERGY); Montgomery, Kaitlin (MOF); John Kim; Psinas, John (TBS)
Cc:	Hosick, Sarah (TBS); James Strang (MOF); Sandy Luk (MOHLTC); Indira Komal (MCSCS); Veinot, Cindy (TBS); Nadine Petsche (MOF)
Subject:	Re: Equity Financing
Date:	Saturday, April 22, 2017 8:18:33 AM

Ken, we had understood 1.2 is possibly a go-forward number, but the correct amount for 17-18 should be prorated, as there will not be 12 months of activity. Is that correct?

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From: Ken Kandeepan
Sent: Saturday, April 22, 2017 12:08 AM
To: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS)
Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS)
Subject: RE: Equity Financing

Hi All

There seems to be considerable confusion on this issue and hopefully I can clear that up with this email.

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· The Province provides cash to OPG, reducing its cash assets and its Investment in OPG, an asset account will increase, in effect one asset is exchanged for another.

· As such an operating asset needs to be set up hopefully in Energy's estimates that allows the Province to make the payment to OPG.

· The amount will be around $1.2 billion, however, Scott should able to provide a more precise number.

Thanks and I am available for a discussion tomorrow, if anyone wishes further clarification, pls call me on my cell at 647-202-4373.

Ken K

From: Fung, Felix (TBS) [mailto:Felix.Fung@ontario.ca]
Sent: Friday, April 21, 2017 8:30 PM
To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James

Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
Subject: RE: Equity Financing

Sorry, 1 more question on this that I hope MOF/ENE and the OFA can help me answer. Scott/Katilin, your finance corporate shop may be able to help with this question too.

I believe the Trust will be held by OPG. Since this is case, then it wouldn't be an operating asset that we need to show in the Estimates (as the Estimates generally don't show assets of consolidated entities). Instead, we would need to show a payment from MOF or Energy to the trust, and then a reversing adjustment below the line (but all of this would be in expense, not assets)?. In other words, how does MOF/ENE propose this to be shown in Printed Estimates?

Thanks - happy to chat further.

Felix

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Cc: Graham, Helen (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS)
Subject: RE: Equity Financing

Hi everyone, further to James' email below, in order to have the possibility of including the operating asset in Printed Estimates (which is our preferred/recommended option), we need the following information from Energy/MOF by Monday:

1) the exact value of the operating asset that is required (note our comments below regarding any buffers that are to be added)
2) confirmation of the location of where this operating asset will show up (Ministry, admin data info)
3) a business case rationale explaining the purpose and why this is needed

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Thanks - happy to chat further should you have any questions.

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Any buffer being added to the 49% needs to be explicitly identified in the Treasury Board submission – it is a

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James

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To: Veinot, Cindy (TBS)
Cc: Hosick, Sarah (TBS); Graham, Helen (TBS); Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

FYI

From: Strang, James (TBS)
Sent: April-11-17 11:58 AM
To: Graham, Helen (TBS)
Cc: Fung, Felix (TBS)
Subject: FW: Equity Financing - Working Group Note

The OFA note we received.

From: Fung, Felix (TBS)
Sent: April 4, 2017 10:47 AM
To: Strang, James (TBS)
Subject: FW: Equity Financing - Working Group Note

From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
Sent: April-04-17 10:45 AM
To: Fung, Felix (TBS)
Cc: Bruno Amara; Adam Prokop
Subject: FW: Equity Financing - Working Group Note

Hi Felix,

Forwarding this to you as well. Please see attached.

Regards,
Salman

From: Adam Prokop
Sent: Tuesday, April 04, 2017 10:38 AM
To: Bruno Amara <Bruno.Amara@ofina.on.ca<mailto:Bruno.Amara@ofina.on.ca>>; Salman Qadir <Salman.Qadir@ofina.on.ca<mailto:Salman.Qadir@ofina.on.ca>>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca<mailto:Shajee.Kathirgamanathan@ofina.on.ca>>; Carlos Yep <Carlos.Yep@ofina.on.ca<mailto:Carlos.Yep@ofina.on.ca>>; Mike Manning <Mike.Manning@ofina.on.ca<mailto:Mike.Manning@ofina.on.ca>>; John Kim <John.Kim@ofina.on.ca<mailto:John.Kim@ofina.on.ca>>; John Psinas <John.Psinas@ofina.on.ca<mailto:John.Psinas@ofina.on.ca>>; 'Montgomery, Kaitlin (MOF)' <Kaitlin.Montgomery@ontario.ca<mailto:Kaitlin.Montgomery@ontario.ca>>; Tobias P. Whitfield (MOF) <Tobias.Whitfield@ontario.ca<mailto:Tobias.Whitfield@ontario.ca>>
Subject: Equity Financing - Working Group Note

Greetings,

Please review the attached equity injection note for internal review only. Please keep this within the Ministry/OFA for now.

Kind regards,

Adam Prokop
Economic Specialist
Office: 416-315-6462
adam.prokop@ofina.on.ca<mailto:adam.prokop@ofina.on.ca>

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From: Ronald Kwan
To: John Kim
Subject: Re: Equity Financing
Date: Saturday, April 22, 2017 1:37:23 PM

Hi John,

Is the 50% supposed to then provide a buffer, vs 44%?

And would it be based on a May1 retroactive start time, so 11 months?

And has Energy provided a fiscalsed set of GA deferral estimates?

I thought the earlier discussion was for this to be in Supps. Why the change? I think it makes sense to have it in the Document Estimates, but just want to know why the change.

Ken seems to understand this, except I would not have written his first bullet quite that way, since there is an impact on the Estimates, even if indirect through Energy, as he lays out in his other bullets.

Please keep me apprised, or loop me into the exchange, as needed.

Thanks,
Ron

P.S. An Aside: If Ken and FTD understand that the OFA is providing cash to Energy to inject equity into OPG, how can CMD be thinking about what Francisco was talking about yesterday?

> On Apr 22, 2017, at 1:09 PM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> Fyi.
>
> -----Original Message-----
> From: Veinot, Cindy (TBS) [mailto:Cindy.Veinot@ontario.ca]
> Sent: April-22-17 10:48 AM
> To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Helen Graham (MOF) <Helen.Graham@ontario.ca>
> Cc: Felix Fung (MOF) <Felix.Fung@ontario.ca>; Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>
> Subject: Re: Equity Financing
>
> Agreed. OPG Trust has not yet been created.
>
> The operating asset appropriation will be for the Ministry that owns the new shares in OPG. Scott Nelms - assuming that will Energy. Can you confirm.
>
> The amount needs to be based on 50% of the expected deferral for the 2017-18 year. IESO may need to weigh in on that.
>
> Cindy
>
> Sent from my BlackBerry 10 smartphone on the Rogers network.

> Original Message
> From: Ken Kandeepan
> Sent: Saturday, April 22, 2017 10:08 AM
> To: Graham, Helen (TBS)
> Cc: Fung, Felix (TBS); Nelms, Scott (MOF); Montgomery, Kaitlin (MOF); Kim, John (OFA); Psinas, John (TBS); Hosick, Sarah (TBS); Strang, James (TBS); Luk, Sandy (TBS); Komal, Indira (TBS); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
> Subject: Re: Equity Financing
>
>
> Hi Helen
>
> I suspect you are referring to the Affordability Trust that has already been set up by the Province but has nothing to to do with the OPG Trust that I mention in my email.
>
> You may want to touch base with Cindy for a few minutes next week and she should be able to clarify the differences between these two trusts for you.
>
> Thanks
>
> Ken k
>
>
>
>> On Apr 22, 2017, at 8:18 AM, Graham, Helen (TBS) <Helen.Graham@ontario.ca> wrote:
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>> Sent: Friday, April 21, 2017 8:30 PM
>> To: Scott Nelms (ENERGY) <Scott.Nelms@ontario.ca>; Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Psinas, John (TBS) <John.Psinas@ontario.ca>
>> Cc: Helen Graham (MOF) <Helen.Graham@ontario.ca>; Hosick, Sarah (TBS) <Sarah.Hosick@ontario.ca>; James Strang (MOF) <James.Strang@ontario.ca>; Sandy Luk (MOHLTC) <Sandy.Luk@ontario.ca>; Indira Komal (MCSCS) <Indira.Komal@ontario.ca>
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>> Subject: FW: Equity Financing - Working Group Note
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>> From: Salman Qadir [mailto:Salman.Qadir@ofina.on.ca]
>> Sent: April-04-17 10:45 AM
>> To: Fung, Felix (TBS)
>> Cc: Bruno Amara; Adam Prokop
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>> Subject: Equity Financing - Working Group Note
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>> Office: 416-315-6462
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From: Ronald Kwan
To: John Kim
Cc: Francisco Chinchon
Subject: Re: Equity Injection
Date: Sunday, April 02, 2017 12:38:07 PM

Hi John,

Yes, I think CEFD should be providing its own advice where applicable.

Ron

On Apr 2, 2017, at 11:44 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> I have essentially conveyed that to Toby.
>
> I was thinking more from the perspective of enhanced role for the division than any concerns about the limited or narrow approach CMD may be taking.
>
> John
>
> ---
>
> **From:** Ronald Kwan
> **Sent:** Sunday, April 02, 2017 11:11 AM
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Cc:** Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> **Subject:** Re: Equity Injection
>
> Hi John,
>
> This procurement path idea comes from Gadi and Mike.
>
> I would suggest that if MOF Legal wants to express considerations on the process that they convey them to CMD directly.
>
> Do you have concerns that if this path is chosen that it could ultimately delay or limit the advice available to the Province, compared to the tight timelines and the advice other entities can access in the interim?
>
> Ron
>
> On Apr 1, 2017, at 9:38 PM, John Kim <John.Kim@ofina.on.ca> wrote:
>
> > Hi Ron,

I was thinking about the call I had with Toby last Friday. He was suggesting whether the CMD's proposal to hire narrow scope advisor is sufficient. That was essentially where he was going with his inquiries. While this is my assessment and nobody else's, I do wonder if there's scope for us to get more involved in the procurement process. Just throwing it out there.

Not sure how representative Toby's comments were (or if I'm reading them right) within MOF Legal but they seem to be concerned on the accounting focus of perhaps the advice thus far.

Also, happy to engage Francisco's group's expertise, as always.

John

Y. John Kim
Director, Electricity Finance Branch
Corporate & Electricity Finance Division
Ontario Financing Authority
Ph: 416-212-6996
Email: john.kim@ofina.on.ca

From: Ronald Kwan
To: John Kim
Cc: Francisco Chinchon
Subject: Re: Equity Injection
Date: Sunday, April 02, 2017 11:11:19 AM

Hi John,

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I would suggest that if MOF Legal wants to express considerations on the process that they convey them to CMD directly.

Do you have concerns that if this path is chosen that it could ultimately delay or limit the advice available to the Province, compared to the tight timelines and the advice other entities can access in the interim?

Ron

On Apr 1, 2017, at 9:38 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> I was thinking about the call I had with Toby last Friday. He was suggesting whether the CMD's proposal to hire narrow scope advisor is sufficient. That was essentially where he was going with his inquiries. While this is my assessment and nobody else's, I do wonder if there's scope for us to get more involved in the procurement process. Just throwing it out there.
>
> Not sure how representative Toby's comments were (or if I'm reading them right) within MOF Legal but they seem to be concerned on the accounting focus of perhaps the advice thus far.
>
> Also, happy to engage Francisco's group's expertise, as always.
>
> John
>
> Y. John Kim
> Director, Electricity Finance Branch
> Corporate & Electricity Finance Division
> Ontario Financing Authority
> Ph: 416-212-6996
> Email: john.kim@ofina.on.ca

From: Ronald Kwan
To: John Kim
Subject: Re: Equity Injection
Date: Friday, April 21, 2017 11:22:11 AM

Hi,

Would you send me the draft and markup.

Thanks,
Ron

On Apr 21, 2017, at 11:07 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> Ken had drafted a first cut of terms of reference to TD as advisor on the capital contribution…I've made significant edits. Would you mind if I send it back as staff level comments?
>
> I believe it'd be sent out by CMD.
>
> John
>
> Y. John Kim
> Director, Electricity Finance Branch
> Corporate & Electricity Finance Division
> Ontario Financing Authority
> Ph: 416-212-6996
> Email: john.kim@ofina.on.ca

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim; Emily Kerr; Gavin He
Subject: Re: Fair Hydro Plan
Date: Thursday, April 06, 2017 7:28:46 PM
Attachments: FHP programs4.docx

Hi Bruno,

For sure, understood.

How about this?

Ron

From: Bruno Amara
Sent: April 6, 2017 7:26 PM
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan

Ron

The table sent previously I believe has more up-to-date figures than the placemat provided by Scott. The RRRP numbers were revised in the March 1 cab-sub. And as just noted $100m was approved for Affordability Fund.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:22 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: RE: Fair Hydro Plan

Ron:

Emily is reminding me that Affordability Fund was eventually approved for $100m rather than $200m. In the attached I have revised and added a footnote.

Bruno

From: Bruno Amara
Sent: Thursday, April 06, 2017 7:11 PM
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund3		100	tbd	tbd	tbd	tbd
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**100**	**665**	**753**	**829**	**892**

1. Previously funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet
3. TB/MBC note March 3 requests approval for $100m for Affordability Fund rather than $200m per march 1 cabinet submission

From: Ronald Kwan
To: Bruno Amara
Cc: John Kim; Emily Kerr; Gavin He
Subject: Re: Fair Hydro Plan
Date: Thursday, April 06, 2017 7:34:19 PM

And thanks to all for the quick response. I understand that this is for an MO briefing of the Minister tomorrow morning.

Ron

From: Bruno Amara
Sent: April 6, 2017 7:32 PM
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan

Yes. I think that works better. I believe there is still report back for plans for the rest.

Bruno

From: Ronald Kwan
Sent: Thursday, April 06, 2017 7:29 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Fair Hydro Plan

Hi Bruno,

For sure, understood.

How about this?

Ron

From: Bruno Amara
Sent: April 6, 2017 7:26 PM
To: Ronald Kwan
Cc: John Kim; Emily Kerr; Gavin He
Subject: RE: Fair Hydro Plan

Ron

The table sent previously I believe has more up-to-date figures than the placemat provided by Scott. The RRRP numbers were revised in the March 1 cab-sub. And as just noted $100m was approved for Affordability Fund.

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Sent: Thursday, April 06, 2017 7:11 PM
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Cc: John Kim <John.Kim@ofina.on.ca>; Emily Kerr <Emily.Kerr@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Fair Hydro Plan

Ron

See the attached table. This is from the March 1, cabinet submission (also attached). The figures are consistent with the $2.5b over 3 years if we included the $200m Affordability fund in 2016-17.

Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

From: Ronald Kwan
To: John Kim
Subject: Re: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 7:33:56 PM

Hi,

I think the submission should note that the IESO is seeking a financing facility from the OFA to provide bridge financing and a backstop.

It may not be an approval item, but TB should be made aware.

And in my mind, Energy should add it in, as IESO is an Energy agency, which says it needs this to perform under the GA part of the FHP.

We can offer to review and support what energy writes.

I don't think our Minister should be doing this without being certain that it is understood by TB and Energy, including the risk that this could be long-term financing, which could result in a fiscal risk.

Ron

On Apr 25, 2017, at 7:17 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> FYI and I don't see the need for ieso item at tb submission but would you have a different view. Ieso financing is done via M of Finance authority as part of my original thinking
>
> Begin forwarded message:
>
> **From:** "Montgomery, Kaitlin (MOF)" <Kaitlin.Montgomery@ontario.ca>
> **Date:** April 25, 2017 at 6:56:34 PM EDT
> **To:** "Kim, John (OFA)" <John.Kim@ofina.on.ca>
> **Subject: FW: GA Financing / TB Sub**
>
> Just wanted to check in – do you anticipate providing anything for the TB submission on the borrowing requirements of IESO? Or not needed? Just want to make sure I'm flagging incoming content to ENE.
>
> Thanks,
> Kaitlin
>
> ---
>
> **From:** Montgomery, Kaitlin (MOF)
> **Sent:** April 24, 2017 10:18 AM

To: Kim, John (OFA) (John.Kim@ofina.on.ca)
Subject: GA Financing / TB Sub

Hey John,

Just following up on our conversation Friday. You had asked about the rationale for certain levels of financing – passing this note along that we just received from OPG. Let me know if you have further questions on this.

Secondly, I'm starting to pull together materials for the TB submission. The first is seeking appropriation for the equity injections, second is any PILs exemptions that the Province is comfortable with. Lastly, Scott thought you guys might also want something built into the submission about increased borrowing requirements of the IESO – would you be able to draft something for inclusion in the submission on this (if required)?

Let me know what you think.
Kaitlin

<Finance Structure_GA_Rationale for 51%.docx>

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: Re: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 7:14:34 PM

Let's connect tomorrow. I have a deck in front of Ron but it's to give a status update more than needing anything per se. But let me take a close look

On Apr 25, 2017, at 6:56 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:

> Just wanted to check in – do you anticipate providing anything for the TB submission on the borrowing requirements of IESO? Or not needed? Just want to make sure I'm flagging incoming content to ENE.
>
> Thanks,
> Kaitlin
>
> ---
>
> **From:** Montgomery, Kaitlin (MOF)
> **Sent:** April 24, 2017 10:18 AM
> **To:** Kim, John (OFA) (John.Kim@ofina.on.ca)
> **Subject:** GA Financing / TB Sub
>
> Hey John,
>
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>
> Let me know what you think.
> Kaitlin
>
> <Finance Structure_GA_Rationale for 51%.docx>

From: Ronald Kwan
To: John Kim
Subject: Re: GA Financing / TB Sub
Date: Tuesday, April 25, 2017 8:01:51 PM

Hi,

I think the facility will need to be enhanced. I heard that the IESO wants a facility size to be able to potentially finance one full year, which could then be in excess of $3 Bn.

We should also discuss with TB staff the ask.

We can discuss in the morning too.

Ron

On Apr 25, 2017, at 7:57 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Thanks, would the initial set up use be okay under the existing facility? Or could we use the existing or enhanced facility with a new acknowledgement of some sort from our Minister?
>
> John
>
> ---
>
> **From:** Ronald Kwan
> **Sent:** April-25-17 7:34 PM
> **To:** John Kim <John.Kim@ofina.on.ca>
> **Subject:** Re: GA Financing / TB Sub
>
> Hi,
>
> I think the submission should note that the IESO is seeking a financing facility from the OFA to provide bridge financing and a backstop.
>
> It may not be an approval item, but TB should be made aware.
>
> And in my mind, Energy should add it in, as IESO is an Energy agency, which says it needs this to perform under the GA part of the FHP.
>
> We can offer to review and support what energy writes.
>
> I don't think our Minister should be doing this without being certain that it is understood by TB and Energy, including the risk that this could be long-term financing, which could result in a fiscal risk.
>
> Ron
>
> On Apr 25, 2017, at 7:17 PM, John Kim <John.Kim@ofina.on.ca> wrote:

FYI and I don't see the need for ieso item at tb submission but would you have a different view. Ieso financing is done via M of Finance authority as part of my original thinking

Begin forwarded message:

From: "Montgomery, Kaitlin (MOF)" <Kaitlin.Montgomery@ontario.ca>
Date: April 25, 2017 at 6:56:34 PM EDT
To: "Kim, John (OFA)" <John.Kim@ofina.on.ca>
Subject: FW: GA Financing / TB Sub

Just wanted to check in – do you anticipate providing anything for the TB submission on the borrowing requirements of IESO? Or not needed? Just want to make sure I'm flagging incoming content to ENE.

Thanks,
Kaitlin

From: Montgomery, Kaitlin (MOF)
Sent: April 24, 2017 10:18 AM
To: Kim, John (OFA) (John.Kim@ofina.on.ca)
Subject: GA Financing / TB Sub

Hey John,

Just following up on our conversation Friday. You had asked about the rationale for certain levels of financing – passing this note along that we just received from OPG. Let me know if you have further questions on this.

Secondly, I'm starting to pull together materials for the TB submission. The first is seeking appropriation for the equity injections, second is any PILs exemptions that the Province is comfortable with. Lastly, Scott thought you guys might also want something built into the submission about increased borrowing requirements of the IESO – would you be able to draft something for inclusion in the submission on this (if required)?

Let me know what you think.
Kaitlin

<Finance Structure_GA_Rationale for 51%.docx>

From: Leung, Thomas (MOF)
To: John Kim; Carlos Yep
Subject: Re: GA financing - equity injections
Date: Tuesday, April 04, 2017 8:31:51 AM

Hope all is well. In advance of tomorrow's call, just wanted to check in regarding any questions/concerns on the note. Happy to chat.

Thanks,

Thomas.

From: Leung, Thomas (MOF)
Sent: Thursday, March 30, 2017 9:34 AM
To: Kim, John (OFA); Yep, Carlos (OFA)
Subject: FW: GA financing - equity injections

Carlos, Jim,

Below is the initial feedback from our corporate / controllership on the attached proposed process that you're reviewing.

Thomas.

From: Gounden, Pratima (ENERGY)
Sent: March 28, 2017 4:39 PM
To: Leung, Thomas (MOF)
Cc: Montgomery, Kaitlin (MOF)
Subject: RE: GA financing - equity injections

Hi Thomas,

Have you received any feedback from OFA on this document? Would love to see their comments.

Overall the approvals process looks fine.

Minor comments/question:

· PRRT is a four year planning cycle, could we requesting the authority to inject the equity for 4, instead of 3 years?

· We'll probably create an operating asset in Vote 2905 – this is where all the other rate mitigation items are. This I will need to confirm though.

· If Energy is making the equity injection, why are we working with MOF – is it just because you EIGS is under them now?

· Can I assume that the first equity injection would be 2018-19?

Controllership comment is that this is quite complicated and we may want to loop in OPCD and legal in early. They advised there may be a need for external expertise (accounting and legal), but I'll leave this part for now – it's probably too early for this.

Pratima

From: Salman Qadir
To: John Kim
Cc: Bruno Amara
Subject: Re: IESO slides
Date: Wednesday, April 26, 2017 12:08:49 PM

Hi John,

Are you looking to replace that slide with two new ones or we can leave that as is and add 1-2 slides on IESO.

The latter might work best.

Salman

Sent from my iPhone

On Apr 26, 2017, at 11:34 AM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Salman,
>
> I have a fairly urgent request (hoping for end of day)….in the attached (SpringBreak17 and p. 15 of 80), we have slide 14 that shows the GA diagram. I want to insert the potential IESO funding requirement that we have summarized in our deck of yesterday. I'm open to an updated look but want to have it sent to Energy soon.
>
> Looking for maybe 2 slides to potentially suggest Energy put in their TB submission.
>
> John
>
> Y. John Kim
> Director, Electricity Finance Branch
> Corporate & Electricity Finance Division
> Ontario Financing Authority
> Ph: 416-212-6996
> Email: john.kim@ofina.on.ca
>
> <2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf>

From:	Petsche, Nadine (TBS)
To:	John Psinas
Cc:	Bharat Patel (MOF); Francisco Chinchon; John Kim; Bruno Amara; George Sakura; Kevin Hwang; Ken Kandeepan; Carlos Yep; Veinot, Cindy (TBS)
Subject:	Re: MOF - Energy compromise
Date:	Wednesday, April 19, 2017 2:55:05 PM

John,
Outreach to MOE for clarification and confirmation is recommended. We have not had any discussion with the ministry on this item and cannot therefore comment on their expectation. It does seem similar to the recent decision related to H1.
Nadine
From: John Psinas
Sent: Tuesday, April 18, 2017 4:24 PM
To: Petsche, Nadine (TBS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA)
Subject: MOF - Energy compromise

Nadine,

Regarding the equity injection, it is my understanding, based on what happened with Hydro 1, that MOF and Energy eventually compromised. MOF will keep the historical $5 + $3 B on their books for OPG and H1 Investment in GBE, but for new Hydro 1 issues, the equity will be on Energy's books. In terms of the equity injection GA issue, will the shares received from OPG be on Energy's books, as that constitutes new issues similar to the H1 compromise? This has important connotations given that someone has to go to Treasury Board and ask for an operating asset in the next couple of weeks to be set up and someone has to track for the next 15 years the number of shares received from OPG.

Can OPCD confirm that Energy will have these new issues on their books?

Thanks.

John

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From: Montgomery, Kaitlin (MOF)
To: John Kim
Cc: Bruno Amara
Subject: Re: MOF - Energy compromise
Date: Thursday, April 20, 2017 5:09:02 PM

Thanks I connected with John Psinas today and let him know I was coordinating for ENE.

Asokan is ENE Controllership Branch - I've kept them in the loop but they aren't too involved in this and will defer to me to seek decisions/approvals on this stuff

Sent from my BlackBerry 10 smartphone on the Rogers network.
Original Message
From: John Kim
Sent: Thursday, April 20, 2017 4:45 PM
To: Montgomery, Kaitlin (MOF)
Cc: Bruno Amara
Subject: FW: MOF - Energy compromise

FYI, and who is Asokan?

-----Original Message-----
From: Sadasivan, Asokan (MEDG/MRIS) [mailto:Asokan.Sadasivan@ontario.ca]
Sent: Wednesday, April 19, 2017 5:11 PM
To: John Psinas <John.Psinas@ofina.on.ca>
Cc: Bharat Patel (MOF) <Bharat.Patel3@ontario.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>; Kevin Hwang <Kevin.Hwang@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; Veinot, Cindy (TBS) <Cindy.Veinot@ontario.ca>; Nadine Petsche (MOF) <Nadine.Petsche@ontario.ca>; Kate Johnstone (MCSS) <Kate.Johnstone@ontario.ca>; Tai An (ENERGY) <Tai.An@ontario.ca>; Pratima Gounden (ENERGY) <Pratima.Gounden@ontario.ca>
Subject: RE: MOF - Energy compromise

John,

Our understanding is that this is still evolving and hence, we are not in a position to comment at this moment.

Regards,

Asokan
416 902 2649

-----Original Message-----
From: John Psinas [mailto:John.Psinas@ofina.on.ca]
Sent: April 19, 2017 3:16 PM
To: Sadasivan, Asokan (MEDG/MRIS)
Cc: Patel, Bharat (TBS); Chinchon, Francisco (OFA); Kim, John (OFA); Bruno Amara; Sakura, George (OFA); Hwang, Kevin (OFA); Kandeepan, Ken (OFA); Yep, Carlos (OFA); Veinot, Cindy (TBS); Petsche, Nadine (TBS)
Subject: RE: MOF - Energy compromise

Asokan,
I just want to confirm that the Ministry of Energy will record the equity injection payments (likely on a monthly basis (tbd)) and subsequently record the shares received from OPG going forward. From what I understand,

this is line with the Hydro 1 compromise, where new equity will be recorded on Energy's books and that Energy will take the lead in all aspects?

Thanks.

John

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From: John Kim
To: Bruno Amara
Subject: Re: OESP
Date: Tuesday, April 18, 2017 11:20:52 AM

I suspect this is with tbs....I've asked Felix for a call as I've got a couple of info requests pending including one from Ron that I've kind of sat on for a bit

On Apr 18, 2017, at 11:19 AM, Bruno Amara <Bruno.Amara@ofina.on.ca> wrote:

> I'll see if I can find out from Framework?
>
> ---
>
> **From:** Ronald Kwan
> **Sent:** Tuesday, April 18, 2017 11:11 AM
> **To:** John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>
> **Subject:** FW: OESP
>
> Hi,
>
> Would you know or be able to find out if this was factored into the fiscal plan amount for 17-18?
>
> Thanks,
> Ron
>
> ---
>
> **From:** Anthony Martinello [mailto:Anthony.Martinello@ieso.ca]
> **Sent:** April-18-17 10:56 AM
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>
> **Cc:** Jeannette Briggs <jeannette.briggs@ieso.ca>
> **Subject:** OESP
>
> $104 million.
>
> Under the new Fair Hydro initiatives, this OESP amount will be slowly drawn down and any further funding will be made via the government (taxpayer base) ……not the IESO market.
>
> Regards.
>
> ---
>
> **From:** Ronald Kwan [mailto:Ronald.Kwan@ofina.on.ca]
> **Sent:** April 18, 2017 10:11 AM
> **To:** Anthony Martinello
> **Subject:** RE: OFA-IESO, discussion re Fair Hydro
>
> Hi Anthony,

How much has the IESO accumulated in amounts for OESP for the period in respect of up to the end of March 31, 2017?

Thanks,
Ron

From: Anthony Martinello [mailto:Anthony.Martinello@ieso.ca]
Sent: April-16-17 11:55 AM
To: Kim Marshall <Kim.Marshall@ieso.ca>; Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Michael Boll <Michael.Boll@ieso.ca>; Mike Manning <Mike.Manning@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Victor Buza <Victor.Buza@ieso.ca>
Subject: OFA-IESO, discussion re Fair Hydro

Below are the proposed agenda items for our meeting.

Agenda:

1.Draw Amounts
-IESO may need to fund a) Fair Hydro forecast variances (short term), and b) Fair Hydro amounts not purchased by the OPG SPV (long term);
-in order to minimize costs and maximize cash-flow flexibility (matching to OPG SPV buys) – any appetite to amending the current 28 day minimum for draws;

2.IESO's Fair Hydro role
-IESO's credit rating agencies (Moody's Aa2, and DBRS) will examine IESO's credit capacities/solvency – need to update IESO/OFA's credit facilities to remove material adverse effect clauses or similar clauses and acknowledge/agree IESO's role in the Fairy Hydro plan and commitment to advance funds under the credit facility if needed for the Fair Hydro cash-flows.

3.General
General comments regarding IESO's Fair Hydro needs vs. IESO regular ongoing needs (corporate and market)

Regards.

This e-mail message and any files transmitted with it are intended only for the named recipient(s) above and may contain information that is privileged, confidential and/or exempt from disclosure under applicable law. If you are not the intended recipient(s), any dissemination, distribution or copying of this e-mail message or any files transmitted with it is strictly prohibited. If you have received this message in error, or are not the named recipient(s), please notify the sender immediately and delete this e-mail message.

This message, including any attachments, is meant only for the use of the individual(s) to whom it is intended and may contain information that is privileged/confidential. Any unauthorized use, copying or disclosure is strictly prohibited. If you are not the intended recipient or have received this message in error, please notify us immediately by reply e-mail

and permanently delete this message, including any attachments, without reading them, and destroy all copies. Thank you.

From: Ronald Kwan
To: John Kim
Cc: Francisco Chinchon; Darren Scanlan
Subject: Re: OPG Trust Financing
Date: Friday, March 10, 2017 3:52:37 PM

Thank you John, Francisco.

Ron

On Mar 10, 2017, at 3:50 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron, Francisco,
>
> We will add to this. Hopefully soon.
>
> Thanks,
>
> John.
>
> ---
>
> **From:** Francisco Chinchon
> **Sent:** Friday, March 10, 2017 3:14 PM
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
> **Cc:** Darren Scanlan <Darren.Scanlan@ofina.on.ca>
> **Subject:** OPG Trust Financing
>
> Hi Ron, John,
>
> Arie and Wentao put together a note that explains what we need to do and the challenges/questions we will probably face. Is intended to map the road, we can expand as we have more clarity.
>
> All comments are welcome.
>
> Francisco
>
> ---
>
> **From:** Arie Jarczyn
> **Sent:** Friday, March 10, 2017 2:14 PM
> **To:** Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> **Cc:** Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
> **Subject:** RE: OPG Trust Financing
>
> Hi looks good to us, just a few edits.

Thanks,
Arie

From: Francisco Chinchon
Sent: Friday, March 10, 2017 1:41 PM
To: Arie Jarczyn <Arie.Jarczyn@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: RE: OPG Trust Financing

Looks good. I added a bit, please review.

From: Arie Jarczyn
Sent: Friday, March 10, 2017 9:56 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: Darren Scanlan <Darren.Scanlan@ofina.on.ca>; Wentao Shi <Wentao.Shi@ofina.on.ca>
Subject: OPG Trust Financing

Hi Francisco,

Please find for review a draft that Darren, Wentao and I worked on, on the mechanics on funding the OPG Trust

Saved here

Arie Jarczyn
Senior Advisor
Strategic Investment and Finance Branch
Ontario Financing Authority
Tel: 416-325-1585
e-mail: arie.jarczyn@ofina.on.ca

From:	Adam Prokop
To:	Bruno Amara; John Kim
Cc:	Francisco Chinchon; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject:	Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 9:15:03 PM

Thanks Bruno,

Yes that is it. A key part is point is c (50% of the most subordinated debt) - OPG needs to own at least 50% of the subordinated debt (the equity tranche) with this portion suggested to be about 5% of the Trust. This is the 5% that OPG is borrowing from the market. This is why the borrowing is capped from the Province at an epsilon below 45%.

AP

From: Bruno Amara
Sent: Wednesday, April 26, 2017 9:01:23 PM
To: Adam Prokop; John Kim
Cc: Francisco Chinchon; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Thanks Adam

One of the list of 14 in the white paper. This was one of the conditions required for OPG to consolidate the Trust

1. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    a. The Trust
    b. Any of OPG's investments in the Trust
    c. The most subordinated debt of the Trust

From: Adam Prokop
Sent: Wednesday, April 26, 2017 8:51 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

It's from the OPG white paper.

AP

From: John Kim
Sent: Wednesday, April 26, 2017 7:17:17 PM
To: Adam Prokop
Cc: Francisco Chinchon; Salman Qadir; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Could you remind me. The condition in the third from bottom bullet. Where did that come from?

On Apr 26, 2017, at 6:56 PM, Adam Prokop <Adam.Prokop@ofina.on.ca> wrote:

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    - Nothing in the 14 conditions prevents this.
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- There could also be a mix of debt and equity financing from the Province over time to OPG.

Overall, a discussion with the credit rating agencies and OPG auditors would probably help clarify options if this is feasible.

Kind regards,

Adam Prokop

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Sent: Wednesday, April 26, 2017 6:08 PM
To: Salman Qadir
Cc: John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

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Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

> Ok, could we take a look at the 14 conditions to double check?

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Sent: Wednesday, April 26, 2017 5:40 PM
To: John Kim <John.Kim@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>
Cc: Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

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reason that came to mind was to effect OPG's credit rating (which TD says would be treated as "intermediate equity" for option 3) – don't think GBE status would be affected.

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Any comments? I overlooked this email from Carlos.

John

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Sent: Wednesday, April 26, 2017 4:20 PM
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<James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
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Carlos, and others

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Thanks and as always happy to discuss.

Ken k

From: Carlos Yep
Sent: Tuesday, April 25, 2017 11:47 AM
To: James Devine <James.Devine@ofina.on.ca>; John Kim

<John.Kim@ofina.on.ca>; Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; 'Kaitlin.Montgomery@ontario.ca' <Kaitlin.Montgomery@ontario.ca>; Adam Prokop <Adam.Prokop@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; George Sakura <George.Sakura@ofina.on.ca>
Cc: Mike Manning <Mike.Manning@ofina.on.ca>
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

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We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]

Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
Subject: Ontario Fair Hydro Plan - Equity Infusion

Mike & team – please see attached for our analysis on the capital injection.

Let us know when you would like to discuss further. We have a # of folks on the road this week, but happy to accommodate later in the week if that works.

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From: Adam Prokop
To: John Kim; Salman Qadir
Cc: Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date: Wednesday, April 26, 2017 8:52:40 PM

Sorry, my Citrix login is not working but I can check first thing tomorrow unless someone else does. From what I recall, all that is mentioned is that it could threaten the GBE status - will confirm ASAP.

AP

From: John Kim
Sent: Wednesday, April 26, 2017 7:55:05 PM
To: Salman Qadir; Adam Prokop
Cc: Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: FW: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Where in the CabSub did it mention this?

From: Ken Kandeepan
Sent: Wednesday, April 26, 2017 7:50 PM
To: John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Good question, the appendix to the MOE cabinet submission includes an opinion from E&Y where this point is very forcefully made. That is why the debt from the Province option is no longer on the table.

Thanks

Ken k

From: John Kim
Sent: Wednesday, April 26, 2017 7:29 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
Cc: George Sakura <George.Sakura@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Hi Ken,

Thanks for these helpful comments. I do have a question on your first comment. I haven't been as close to the accounting discussion as you have been - why would providing debt from the Province to OPG, for this purpose, affect its status as a GBE, if the loan is provided at a market rate. I haven't gone through this deck carefully yet but wanted to clarify this point.

I do recognize that ultimately OPG would want to make a commercial decision so we are looking to be educated on various structures.

Happy to chat in the lock-up tomorrow.

John

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Subject:	Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 8:51:06 PM

It's from the OPG white paper.

AP

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We will arrange a conference call later this week to discuss.

From: Thom, Trevor [mailto:Trevor.Thom@tdsecurities.com]

Sent: Tuesday, April 25, 2017 11:30 AM
To: Mike Manning <Mike.Manning@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>
Cc: Holloway, Harold <Harold.Holloway@tdsecurities.com>; Wolff, Michael <Michael.Wolff@tdsecurities.com>; Purkis, Brad <Brad.Purkis@tdsecurities.com>; Hilloowala, Maharukh <Maharukh.Hilloowala@tdsecurities.com>; Thompson, Susan <Susan.Thompson@tdsecurities.com>
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Mike & team – please see attached for our analysis on the capital injection.

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From: Ronald Kwan
To: John Kim
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date: Wednesday, April 26, 2017 8:39:32 PM

Hi John,

If you are referring to the March CabSub, then, yes, and I believe you have a copy and its saved in the folders.

You'll also recall the OPG 14 points document to get the accounting treatment targeted, which was informed by its earlier discussions with EY.

You'll recall that OPG had to be able to maintain its GBE status, which includes have an appropriate capital structure (for which 100% debt financing would be problematic) and the SPV show that it was financeable independent of the Province.

I think this was all in the BNs you guys put together at the time too. Isn't that right?

Is there a nuance I'm missing, as I did not read the full email chain that you forwarded.

Can you send me the TD analysis.

Thanks,
Ron

On Apr 26, 2017, at 8:08 PM, John Kim <John.Kim@ofina.on.ca> wrote:

> Hi Ron,
>
> Have you seen the appendix to the CabSub?
>
> Thanks,
>
> John
>
> ---
>
> **From:** Ken Kandeepan
> **Sent:** Wednesday, April 26, 2017 7:50 PM
> **To:** John Kim <John.Kim@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
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>
> Good question, the appendix to the MOE cabinet submission includes an opinion from E&Y where this point is very forcefully made. That is why the debt from the Province

option is no longer on the table.

Thanks

Ken k

From: John Kim
Sent: Wednesday, April 26, 2017 7:29 PM
To: Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>; Carlos Yep <Carlos.Yep@ofina.on.ca>; James Devine <James.Devine@ofina.on.ca>; John Psinas <John.Psinas@ofina.on.ca>; Mike Manning <Mike.Manning@ofina.on.ca>
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Hi Ken,

Thanks for these helpful comments. I do have a question on your first comment. I haven't been as close to the accounting discussion as you have been - why would providing debt from the Province to OPG, for this purpose, affect its status as a GBE, if the loan is provided at a market rate. I haven't gone through this deck carefully yet but wanted to clarify this point.

I do recognize that ultimately OPG would want to make a commercial decision so we are looking to be educated on various structures.

Happy to chat in the lock-up tomorrow.

John

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From:	Adam Prokop
To:	Francisco Chinchon; Salman Qadir
Cc:	John Kim; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject:	Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 6:56:04 PM

Hello all,

Here are some of my points

- Equity could affect OPG's GBE status if it is effectively seen as an interest-free loan; if the return from the structure does not justify an equity position. Otherwise, the Province could continue to inject equity into OPG in perpetuity for no reason. The fact that the Province is the sole shareholder strengthens this point. OPG could be seen as reliant on this funding for operations.
- The rating agencies would need to be brought into the discussion - would have to see what cash return from the structure would limit the impact on some ratios; the fact that the capital markets debt will be in a SPV means that portion is bankruptcy remote and may not factor into calculations.
- OPG is at currently at approximately 65% equity, 35% debt while the deemed structure is 45% equity and 55% debt. OPG does have the capacity to take on more debt within the deemed structure. Furthermore, if the structure is separate from the rate regulation process, the deemed structure is not as relevant.
- The related GBE status factor is if OPG can maintain operations and meet their obligations through revenues generated outside of the Province. As long as the debt issued from the Province to OPG is at the market rate, and the revenue from the structure is reasonably expected to cover expenses, the GBE status may not be threatened.
    - There is no minimal credit rating or minimum debt to equity ratio to retain GBE status.
- The markets could also take on more than 51% of the debt from the SPV (51% is minimum).
- There is also the consideration for if the Province issued debt directly to the SPV (i.e., buying securities from the SPV directly rather than going through OPG).
    - Nothing in the 14 conditions prevents this.
    - Need to confirm with OPG auditors.
- The relevant condition is that the Province cannot indirectly (i.e., through OPG) or directly (i.e., to the SPV) finance more than 44% of the structure, either through equity or debt.
- Preferred shares with cumulative dividends if not paid and over a 10 year term would likely get a 50% equity and 50% debt treatment from DBRS, which would lessen the pressure on the capital structure if Province finances OPG directly.
- There could also be a mix of debt and equity financing from the Province over time to

OPG.

Overall, a discussion with the credit rating agencies and OPG auditors would probably help clarify options if this is feasible.

Kind regards,

Adam Prokop

From: Francisco Chinchon
Sent: Wednesday, April 26, 2017 6:08 PM
To: Salman Qadir
Cc: John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

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Date: Wednesday, April 26, 2017 6:33:27 PM

Sorry, I may have derailed. I was referring to Province also being a prudent investor in this. If they are not, is there not a risk of the Provinces contribution being seen as a grant and therefore, fiscal impact.

I think I went in a circle. I'm gonna put my phone down now and maybe now think out loud in an email.

Salman

Sent from my iPhone

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Ken k

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Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date: Wednesday, April 26, 2017 6:04:01 PM

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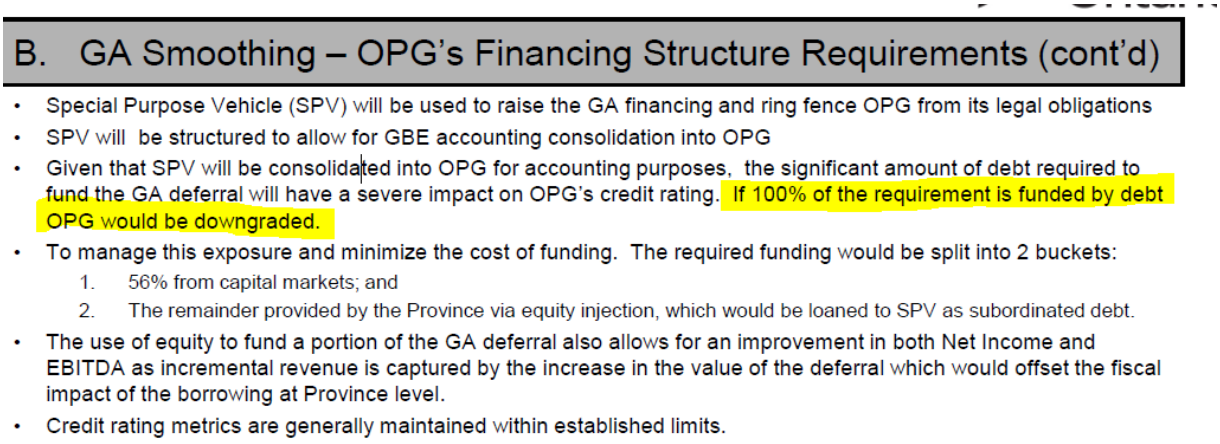
From:	Adam Prokop
To:	Salman Qadir; Bruno Amara; John Kim
Cc:	Francisco Chinchon; Shajee Kathirgamanathan; Gavin He
Subject:	Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD
Date:	Wednesday, April 26, 2017 9:37:41 PM
Attachments:	RAN Electricity Price Mitigation v10 CLEAN 2017 02 28.doc pastedImage.png

Thanks Salman,

Attached is the version that I have on e-mail (probably not the latest). The appendixes don't say much but in the attached cabinet submission (p. 21) this is the mention of the GBE status:



B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.

From: Salman Qadir
Sent: Wednesday, April 26, 2017 9:28:24 PM
To: Adam Prokop; Bruno Amara; John Kim
Cc: Francisco Chinchon; Shajee Kathirgamanathan; Gavin He
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Just to add, I retrieved the March 1 Cabinet Submission deck that is saved in the shared folder and the last page says "APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION –APPENDIX" – do we have this anywhere? Maybe there is something in there that Ken is referring to (which is could equally likely be what Bruno and Adam have provided below).

From: Adam Prokop
Sent: Wednesday, April 26, 2017 9:15 PM
To: Bruno Amara <Bruno.Amara@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Thanks Bruno,

Yes that is it. A key part is point is c (50% of the most subordinated debt) - OPG needs to own

at least 50% of the subordinated debt (the equity tranche) with this portion suggested to be about 5% of the Trust. This is the 5% that OPG is borrowing from the market. This is why the borrowing is capped from the Province at an epsilon below 45%.

AP

From: Bruno Amara
Sent: Wednesday, April 26, 2017 9:01:23 PM
To: Adam Prokop; John Kim
Cc: Francisco Chinchon; Salman Qadir; Shajee Kathirgamanathan; Gavin He
Subject: RE: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Thanks Adam

One of the list of 14 in the white paper. This was one of the conditions required for OPG to consolidate the Trust

1. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    a. The Trust
    b. Any of OPG's investments in the Trust
    c. The most subordinated debt of the Trust

From: Adam Prokop
Sent: Wednesday, April 26, 2017 8:51 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>; Salman Qadir <Salman.Qadir@ofina.on.ca>; Bruno Amara <Bruno.Amara@ofina.on.ca>; Shajee Kathirgamanathan <Shajee.Kathirgamanathan@ofina.on.ca>; Gavin He <Gavin.He@ofina.on.ca>
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

It's from the OPG white paper.

AP

From: John Kim
Sent: Wednesday, April 26, 2017 7:17:17 PM
To: Adam Prokop
Cc: Francisco Chinchon; Salman Qadir; Bruno Amara; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

Could you remind me. The condition in the third from bottom bullet. Where did that come from?

On Apr 26, 2017, at 6:56 PM, Adam Prokop <Adam.Prokop@ofina.on.ca> wrote:

Hello all,

Here are some of my points

- Equity could affect OPG's GBE status if it is effectively seen as an interest-free loan; if the return from the structure does not justify an equity position. Otherwise, the Province could continue to inject equity into OPG in perpetuity for no reason. The fact that the Province is the sole shareholder strengthens this point. OPG could be seen as reliant on this funding for operations.
- The rating agencies would need to be brought into the discussion - would have to see what cash return from the structure would limit the impact on some ratios; the fact that the capital markets debt will be in a SPV means that portion is bankruptcy remote and may not factor into calculations.
- OPG is at currently at approximately 65% equity, 35% debt while the deemed structure is 45% equity and 55% debt. OPG does have the capacity to take on more debt within the deemed structure. Furthermore, if the structure is separate from the rate regulation process, the deemed structure is not as relevant.
- The related GBE status factor is if OPG can maintain operations and meet their obligations through revenues generated outside of the Province. As long as the debt issued from the Province to OPG is at the market rate, and the revenue from the structure is reasonably expected to cover expenses, the GBE status may not be threatened.
    - There is no minimal credit rating or minimum debt to equity ratio to retain GBE status.
- The markets could also take on more than 51% of the debt from the SPV (51% is minimum).
- There is also the consideration for if the Province issued debt directly to the SPV (i.e., buying securities from the SPV directly rather than going through OPG).
    - Nothing in the 14 conditions prevents this.
    - Need to confirm with OPG auditors.
- The relevant condition is that the Province cannot indirectly (i.e., through OPG) or directly (i.e., to the SPV) finance more than 44% of the structure, either through equity or debt.

- Preferred shares with cumulative dividends if not paid and over a 10 year term would likely get a 50% equity and 50% debt treatment from DBRS, which would lessen the pressure on the capital structure if Province finances OPG directly.
- There could also be a mix of debt and equity financing from the Province over time to OPG.

Overall, a discussion with the credit rating agencies and OPG auditors would probably help clarify options if this is feasible.

Kind regards,

Adam Prokop

From: Francisco Chinchon
Sent: Wednesday, April 26, 2017 6:08 PM
To: Salman Qadir
Cc: John Kim; Bruno Amara; Adam Prokop; Shajee Kathirgamanathan; Gavin He
Subject: Re: Ontario Fair Hydro Plan - Equity Infusion - initial comments from TD

How contributing equity to a company that retains a good credit rating could affect its GBE status?

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TREASURY BOARD / MANAGEMENT BOARD OF CABINET
REQUEST ASSESSMENT NOTE

Ministry:	Energy
Meeting Date:	March 1, 2017
Agenda Class:	Major
Last reviewed by: N/A	**Tracking to:** Cabinet – March 1, 2017

SUBMISSION TITLE:	Electricity Price Mitigation

Based on Cabinet Submission

I. DECISION BEFORE THE BOARD

The Ministry of Energy is requesting approval of a suite of initiatives providing relief to various electricity consumer classes.

II. RECOMMENDATIONS:

• Approve a suite of initiatives to provide relief to various electricity consumer classes (pending Cabinet policy approval): o Enhance existing Electricity Support and move existing programs to government funding: – Broaden Rural or Remote Electricity Rate Program (RRRP) – Expand the Ontario Electricity Support Program (OESP) – Create an LDC Affordability Fund – Provide On-Reserve First Nations Delivery Credit o On-going activities to bend the costs curve of electricity (Ontario Energy Board, Independent Electricity System Operators) o Providing significant and immediate rate relief through cost deferral of the Global Adjustment (Smoothing the Global Adjustment) o Lowering eligibility threshold for Industrial Conservation Initiative	*Board Judgment*

III. FINANCIAL SUMMARY

$ Millions	**2016-17**	**2017-18**	**2018-19**
Initiative cost requested – Social Programs	200.0	665.0	753.0
– Global Adjustment Smoothing*	0.0	2,534.0	2,668.0
Initiative cost recommended	0.0	0.0	0.0
Recommended program base (Ontario Rebate for Electricity Consumers)	300.0	1006.0	1004.0
Offset Recommended	0.0	0.0	0.0
Total Fiscal Impact	200.0	3,199.0	3,421.0

*Assumes Global Adjustment smoothing impacts the deficit

IV. KEY COMMENTS AND CONSIDERATIONS

Since 2010, electricity costs have increased as the province has made investments in clean energy generation and modernized electricity infrastructure. Electricity bills are expected to continue to increase as more renewable energy projects come online. Since 2010, average bills for residential consumers

(i.e., using 750 kWh/month) have increased by over 50%. Rates paid by commercial and industrial electricity consumers have increased by 56% and 6% respectively over the same period. Appendix C provides supporting background information.

Ontario currently provides rate mitigation to various electricity consumers through a combination of government funded and rate-based programs. Rate-based programs are funded by shifting costs from one electricity consumer group to another.

The government has committed to providing electricity cost relief to consumers. Since the 2016 Throne Speech, the government has taken a number of actions to further reduce electricity costs, including:

- Providing an 8% rebate on the pre-tax cost of electricity to consumers eligible for the Regulated Price Plan (i.e., residential, small business and farms), equivalent to the provincial portion of HST, effective January 1, 2017.
- Expanding support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.
- Expanding Industrial Conservation Initiative (ICI) eligibility by lowering the threshold to 1 MW, to provide support to additional commercial, institutional and small industrial consumers.

The Ministry of Energy is proposing additional electricity price mitigation initiatives that will provide additional rate relief across all residential and small business electricity consumers, providing up to 25% rate relief in aggregate, by helping the most vulnerable Ontarians through enhancements to existing support programs, smoothing the impacts of the global adjustment and working to bend the future cost curve of electricity.

1) Helping the most vulnerable Ontarians (Customers who are disproportionately affected by increased electricity costs) by enhancing electricity support programs and shifting cost onto the tax-base:
    a) Enhance the Rural or Remote Electricity Rate Protection (RRRP including harmonizing distribution cost for customers with the highest distribution rates)
    b) Expand the Ontario Electricity Support Program (OESP)
    c) Establish a new one-time Local Distribution Company (LDC) Affordability Fund in 2016-17
    d) Delivery charge relief for on-reserve First Nations customers

2) Ongoing activities to bend the future cost curve of electricity:
    a) Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
    b) Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.
    c) Explore additional cost savings to future electricity rates as part of the 2017 Long-Term Energy Plan to help offset the impact of GA recoveries.

3) Refinancing Global Adjustment assets in order to smooth the impacts of the Global Adjustment across ratepayers over a longer period of time.

4) Support for tenants (under development) & Supports for smaller Class B consumers – the Ministry is exploring options to extend electricity support programs to those who do not qualify for existing programs, either because they do not pay for their own electricity bills or because they are too large for the RPP (and associated support programs) but too small to qualify for the ICI for large consumers.

<u>1) Enhancing electricity support programs and shifting cost onto the tax-base</u>

To date, a number of electricity support programs are funded through the electricity rate-base. The Ministry is proposing to shift these costs to government funding and to enhance these programs to

provide additional support to a subset of customers who are disproportionately affected by increased electricity costs.

The Ministry estimates that proceeding with the enhancement of the electricity support programs and shifting cost onto government funding would cost $200M in 2016-17 and increasing to $892M by 2020-21. Moving existing program costs to the tax base would result in a small cost reduction for other ratepayers (approximately $2 for the average residential consumer), but represents more than half of the fiscal impact associated with these proposals.The following table shows the fiscal impact of the proposals (Note: 2017-18 figures are full year, however programs would require implementation period estimated 3-6 months):

SUPPORT PROGRAMS TARGETTING MOST VULNERABLE USERS:

($M)		2016-17	2017-18	2018-19	2019-20	2020-21
1A. RRRP	Status Quo[1,2]	-	243	250	256	263
	Enhancement[2]	-	216	222	228	234
	TOTAL[2]	-	**459**	**472**	**484**	**497**
1B. OESP	Status Quo[1,2]	-	118	159	193	222
	Enhancement[2]	-	67	102	132	153
	TOTAL	-	**186**	**261**	**325**	**375**
1C. Establishing a New LDC Affordability Fund		200	-	-	-	-
1D. On-Reserve First Nations Delivery Credit		-	20	20	20	20
TOTAL FISCAL IMPACT:		**200**	**665**	**753**	**829**	**892**

1. Currently funded by the Rate Base.
2. Status Quo and Enhancement amounts are sourced from previous Ministry decks; Totals from the Cabinet Submission.

Appendix D provides details on each of the programs and their enhancement.

2) Ongoing activities to bend the future cost curve of electricity

The Ministry is proposing a number of ongoing activities to bend the future cost of electricity. This includes leveraging the Ontario Energy Board (OEB) to identify opportunities for red-tape reduction and future LDC efficiencies. In addition, the Ministry will continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives.

Details of these activities can be found in Appendix E.

3) Global Adjustment Smoothing

The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.

The Ministry indicates the majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as

incurred basis' through the GA while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.

The Ministry is proposing to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs. Through GA Smoothing, these costs would be spread over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month. Bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021, and from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding 10% of total electricity costs.

The Ministry continues efforts to identify an effective business structure to support:

- Required increase in provincial borrowing
- No increase in net debt,
- No impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG.

Based on the current stage of the analysis of the accounting, legal and financing risks, it is possible that the deferral of the GA will be recognized as an expense in the fiscal plan. The table below shows the projected fiscal impact:

($M)	2017-18	2018-19	2019-20	2020-21
GA Smoothing for RPP Eligible Only – Residential Bills Lowered 25% (with Government Funded 8% Rebate and Social Programs, 2% increase)	2,534	2,668	2,942	3,420
Interest Portion	*32*	*162*	*298*	*449*

Note: Potential to avoid fiscal impact would depend heavily on decision on finalization of the accounting, legal and financing analysis. Based on an annual interest rate of 5% compounded monthly.

Analysis conducted by the Ontario Financing Authority, MOF indicates that over the 30-year GA smoothing period, estimated total accumulated interest costs exceed the estimated total cumulative savings produced under each option. Interest costs are also highly sensitive to interest rate assumptions and actual borrowing costs.

- In an effort to smooth out the GA, ratepayers will incur interest costs that over a 30-year period, will be added to the GA payments ratepayers make. Under the options above, interest costs exceed the amount being financed (i.e. benefit being provided) over the 30-year periods.

$ millions	Total Cumulative Savings	Total Accumulated Interest Costs
Option 1	$24,977	$35,542

Assumes an annual interest rate of 5% (compounded monthly).

The Ministry will report back to TB/MBC in Spring 2017 on a recommended approach, with an objective of addressing legal, financing and accounting challenges while minimizing fiscal risks. If unsuccessful in identifying an effective transaction design which avoids significant fiscal impacts, it is reasonable to require the Ministry to return with results of further analysis of alternative approaches to mitigate fiscal impacts versus adding GA smoothing directly to the deficit.

More details can be found in Appendix F.

4) Supports for non-RPP Class B consumers

Class B electricity consumers are too large for the RPP and too small to be Class A, and therefore do not qualify for price mitigation programs available to those consumers. The Ministry is proposing to expand ICI by extending eligibility to large Class B consumers with average monthly peak demand over 500 kWh in order to encourage consumers to shift electricity use away from peak hours.

The Ministry is also considering supports for renters/tenants that do not pay their own electricity bills, but it is not making recommendations at this time. The Ministry will report back in 2017-18 on additional options. Appendix G provides more information.

Monthly Electricity Bill Impact

Appendix H illustrates expected impacts of the above proposals on electricity bills. An average residential customer bill in July 2017 is expected to see a 25% decrease, which will vary based on usage and on the local distribution company. This includes the 8% rebate that came into effect on January 1 2017. Enhanced RRRP initiative and expanded OESP will provide additional bill savings for certain consumers:

- Enhanced RRRP – An estimated 800,000 customers would benefit seeing additional savings in the range of $3-$22 on their monthly bill.
- Expanded OESP – OESP consumers would see savings of approximately $40 – $113 on their monthly bill (up from the current $30 - $75).

The LDC Affordability Fund will produce bill savings once installation of energy efficiency measures is completed for targeted consumers.

The On-reserve First Nations Delivery Credit could result in an $85 monthly savings if Ontario Energy Board's recommendations are implemented.

Key Risks and Considerations

Electricity Support Programs - Cost Projection, Program Effectiveness and Fiscal Impact

The Ministry of Energy is bringing forward a suite of initiatives to address the impact of rising electricity prices. The sector is complex and a number of key assumptions used as inputs into the model are variables/forecasts themselves. As such, there is an inherent risk in the cost estimates that are provided. Hence, it is important to ensure the models and assumptions are stress tested. Sensitivity analysis, which would allow the government to develop a risk based outlook to manage potential fluctuations in the cost of these initiatives, would support better decision making and support meeting the government's fiscal targets.

Cost projections may also need to be refined as program details are finalized. This is similar to the initial projections for the cost of the 8% rebate in September 2016. At the time of the briefings in advance of the initial approval, the cost projection for the 8% rebate was $1B for the first year. The projections were refined, resulting in a revised estimate of $1.1B for the first year, rising to $1.2 B in the out years.

Program costs are also highly dependent on uptake and electricity usage and as such, can fluctuate from year to year. For example, the OESP currently has an uptake rate of 30%, the Ministry's cost estimates assume ramping up to 100% over four years (i.e., moving to 100% participation), there is potential for significant underspending if participation rate is between 30% and 100%. It is also important to understand how these enhanced electricity programs may impact the behaviour of various key stakeholders going forward with regard to program uptake and electricity usage and hence the assumptions built into the models and the financial estimates.

As there is no sunset date for the proposals, it is important to understand the full cost of the initiatives for the longer term, beyond the year 2021-22 as outlined in the submission. Furthermore, electricity prices are projected to increase above inflation for the foreseeable future. It is unclear if the initiatives proposed in the submission would be sufficient to bring the cost increases to be at or below inflation. Otherwise, the gap could continue to increase/widen and may necessitate further action and supports by the government.

It is also important to note that the effectiveness of the existing suite of electricity support programs (e.g. OESP, Home Assistance Program, RRRP) could also be evaluated to ensure that they are meeting program objectives and outcomes prior to enhancement and expansion. Key risks to highlight with individual program proposals:

- RRRP - the proposal is likely to create disincentives from the eligible LDCs towards productivity and performance improvements to drive down delivery costs/changes. In addition, the proposal may create an incentive for LDCs that fall just outside the cut-off to drive up their distribution costs to gain eligibility into the program. It is also important to note that the fiscal impact of this initiative is projected to increase beyond 2023 due to regular rate increases. It is recommended that the Ministry provide a long term forecast along with underlying assumptions, with risk bands that account for variability of distribution costs and the proposed distribution charge cap, to show the full expected financial impact of this initiative on the long term fiscal plan.

- OESP - the OESP currently has low uptake, consideration could be given to focussing efforts on increasing the take-up of the existing program, and seeing the effectiveness of the supports, before benefits are further enhanced. This approach may not only lower the fiscal impact in the short-term, but ensure that the effectiveness of the program can be assessed before it is scaled up.

- Affordability Fund – as program development continues to be finalized, the Ministry should continue to work with Treasury Board Secretariat and the Ministry of Finance on considerations around eligibility, relief amounts, fiscal impacts under different administration/delivery options (eg program delivery by outside entities through a trust structure vs ministry delivery), and key implementation risks.

  Considerations should be given to the development of performance metrics, including methods to evaluate whether the program is meeting its objectives and outcomes, to ensure the program is responding to the right elements and doesn't inadvertently incent adverse behaviour regardless of the capacity to pay.

  To be accounted for as a non-controlled trust, several elements must be addressed including who really controls the trust, who are the beneficiaries and whether unused funds are to be returned to the Province in the event of a windup.

As such, it is recommended that the Ministry of Energy work with Treasury Board Secretariat (Centre of Excellence for Evidence-Based Decision Making) and the Ministry of Finance as program development is finalized in order to better assess program costs projections, forecasting models, program effectiveness and performance metrics and outcomes and report back to TB/MBC.

<u>Global Adjustment - Accounting Implications and Fiscal Impacts</u>

There remains continued uncertainty around effective transaction design and related accounting treatment for a number of the initiatives (the Global Adjustment (GA) Smoothing and the New Affordability Fund). The risk exists that the fiscal impact of the proposals may be significantly higher than currently contemplated and estimated. The cost projections in this proposal are highly sensitive to interest rates, and Energy's and IESO's 30-year forecast of GA costs.

The intent is to establish a structure where the entity that takes on the GA and the debt required to smooth rates over a period of time would be a trust consolidated by Ontario Power Generation and thus reflected on the Province's books through modified equity consolidation.

If all the requirements can be met, an accounting analysis is expected to support: 1) increase in provincial borrowing; 2) no increase in net debt; 3) no impact on reported annual surplus/deficit, but depending on funding to OPG/Trust from the province, an increase in interest on debt and an increase in offsetting income reported for from the province's investment in OPG.

To date, the Ontario Auditor General (OAG) opinion on the proposal has not been sought. TBS will work with AG on the transaction. The auditors of OPG and IESO are providing their preliminary assessments and the Office of the Provincial Controller (OPCD) has been engaged.

The Ministry's submission assumes that the proposed GA smoothing will receive a favourable accounting treatment; hence it will not impact the provincial net debt and fiscal plan (For prudence, until there is legal, financing and accounting risk assessment, GA smoothing is shown as impacting the deficit). Should the favourable accounting treatment not be received, the impacts would be significant and variable depending on market changes (interest rates and cost of generation). In addition to having a significant fiscal impact, the proposed plan would also introduce significant volatility to the medium- to long-term fiscal plan as interest rates, energy prices, and consumer behaviour change.

The current cost estimates assume that the GA smoothing is provided to RPP Eligible participants. Given the reduction in the RPP in the initial years, and ability to opt out later, applying the GA smoothing impact to RPP eligible participants is appropriate; otherwise, consumers would have an incentive to opt out of the RPP costs when costs begin to increase and it would be challenging to fully recover the debt, or charge remaining RPP consumers proportionately more.

<u>Implementation/Legal/Other Considerations</u>

- Legal advice on the constitutional risk posed by the proposal to defer the current costs to consumers of the global adjustment, to be paid for by consumers in future years, noted a moderately high constitutional risk of resulting in an unconstitutional tax. It creates a refinancing structure which results in future consumers paying disproportionately more of the GA cost and therefore cross-subsidizing near-term consumers.
    - This advice was based on a review of the proposal from February 9, 2017. The Ministry's draft Cabinet submission indicates this risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

Name of analyst:	James Strang With input from COE, OPCD and OFA	**Phone number:**	416-327-2071
Date:	February 26, 2017	**Log number:**	
Branch / Division:	GGPR/ PEMD/ Treasury Board Secretariat Tax Policy Division/ Ministry of Finance Ontario Financing Authority/ Ministry of Finance		

APPENDIX A: PROPOSED MINUTE (DRAFT)

Should TB/MBC wish to proceed with the Ministry's request, the following minute could be considered:

Approve electricity rate mitigation actions that support up to a 25% electricity bill reduction (including the 8% reduction announced in 2016) for an average household in 2017.

In this regard, the Board:

i. Direct the Ministry of Energy to implement electricity rate mitigation for all electricity consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor by:

a) Subject to completed legal, accounting and financing risk assessments, refinance the Global Adjustment (GA) in order to partially defer RPP-eligible ratepayer GA costs by reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to 15%. Total projected bill increases will be kept in line with CPI until the end of 2021. From 2022 onwards, bills will increase at a rate that ensures gradual recovery of the accumulated debt by 2048.

b) Direct the Ministry to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment , including, but not limited to:

- Formal accounting opinions from OPG and IESO auditors.
- Completed legal, financing and accounting risk assessments. Assessments to include, but not limited to proposed legislation, technical aspects such as Eurig analysis, and risk to borrowing (in discussion with the OFA).
- Report on the multi-year profile of GA smoothing, identifying specific assumptions.
- Report on sensitivity analysis completed as assumptions vary, such as under different recovery rates and periods.
- Overall risk mitigation plan addressing completed legal, accounting and financing risk assessments.

c) If a non-fiscal mechanism cannot be established:
   1. Direct the Ministry to report back to Cabinet and TB/MBC with options for achieving a comparable level of electricity rate mitigation in the most cost effective way, in order to minimize the impact on the province's fiscal plan.
   2. Note costs to government of proceeding if cost of refinancing of Global Adjustment is recognized as an expense in the fiscal plan of up to $2,534,000,000 in 2017-18, $2,668,000,000 in 2018-19, $2,942,000,000 in 2019-20, $3,420,000,000 in 2020-21 and $3,232,000,000 in 2021-22.

ii. Broadening the Rural or Remote Rate Protection (RRRP) program to mitigate distribution charges for customers of Local Distribution Companies (LDC) with some of the highest distribution rates, and moving the program from a ratepayer funded program to a government funded program beginning in 2017, including:

a) Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the lowest distribution rate paid by the average consumer of the LDCs noted by fall 2017.

b) Note costs estimated at up to $459,000,000 in 2017-18, $472,000,000 in 2018-19, $484,000,000 in 2019-20, and $497,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to broaden RRRP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the broadened program now government funded
- Report on and assessment of impacts of consolidation of LDCs
- Assessment of distribution rates and implications for the program

iii. Expanding every benefit level of the Ontario Electricity Support Program by 50%, moving the program from a ratepayer funded program to a government funded program beginning in 2017 and pursuing additional measures to substantially increase take-up.

f) Note costs estimated at up to $186,000,000 in 2017-18, $261,000,000 in 2018-19, $325,000,000 in 2019-20, and $375,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

g) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

h) Direct the Ministry to work Treasury Board Secretariat (Behavioural Insights Unit, Centre of Excellence for Evidence-Based Decision Making) to accelerate/ maximize program uptake.

i) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to expand OESP.

j) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Identify eligibility criteria, and refinements being made.
- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the expanded program now government funded.

iv. Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.

a) Approve to commit up to $200,000,000 on a multi-year basis to support the Affordability Fund.

b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

v. Establishing a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve.

k) Note costs estimated at up to $20,000,000 in 2017-18, $20,000,000 in 2018-19, $20,000,000 in 2019-20, and $20,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant Ontario Energy Board estimate of program costs, from $13M to $20M.

b) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

vi. Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500kW to enhance competitiveness for Class B electricity consumers beginning July 2017.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, results achieved to date versus expectations, impacts of the change for participation, and impact for ratepayers as costs are recovered from ratepayers.

vii. Direct the Ministry:

a) To work with Treasury Board Secretariat and the Ministry of Finance on the development of a comprehensive risk-based costing, including forecast models and sensitivity tests on assumptions and financial estimates, for the electricity mitigation initiatives.

b) To report back to TB/MBC through regular updates including quarterly reports and the 2018-19 Program Review, Renewal and Transformation (PRRT) on the status of implementation, and revised out-year expenditure requirements if applicable.

c) To continue to work with the Ontario Energy Board, the Independent Electricity System Operator and Ontario Power Generation, through the Long-Term Energy Plan 2017, to further reduce electricity rates across the system.

d) To work with the Ministry of Finance, Treasury Board Secretariat, Cabinet Office and Office of the Premier on an integrated communications strategy.

APPENDIX B: FINANCIAL TABLES

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE					TABLE B1
		Fiscal Plan Basis			*Appropriations Basis*
$ Millions		**2016-17**	**2017-18**	**2018-19**	**2016-17**
Initiative cost		200.00	3,199.000	3,421.0000	
Expense changes:					
Social Programs	Oper	0.0000	665.0000	753.0000	200.0000
Global Adjustment Smoothing (Contributing towards up to 25% bill reduction)(Assumes it impacts the deficit)	Oper	0.0000	2,534.0000	2,668.0000	0.0000
Total Fiscal Impact		**200.0000**	**3,199.0000**	**3,421.0000**	**200.0000**

APPENDIX C: ELECTRICITY SECTOR BACKGROUND

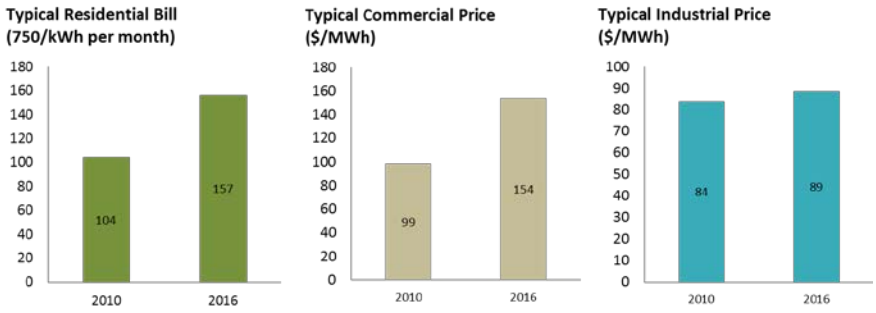
The Ministry has provided the following information to provide electricity sector context this item.

There are three classes of electricity consumers:

	Regulated Price Plan	Class B	Class A
Consumer Types	• Residential • Small Business • Farms	• Commercial • Institutional • Small industrial	• Large commercial • Large industrial
Load Size	Below 0.05 MW	Between 0.05 MW and 3 MW	Above 3 MW*
Total Consumption	58 TWh	57 TWh	26 TWh
Share of Consumption	41.1%	40.4%	18.4%

*** Note:** Consumers with peak demand between 3-5 MW in the manufacturing, mining, refrigerated warehousing, greenhouses and data-processing industries are currently eligible for Class A. All other 3-5MW consumers are Class B.

Since 2010, average bills for residential consumers (i.e., using 750 kWh/month) have increased by over 50%. Rates paid by commercial and industrial electricity consumers have increased by 56% and 6% respectively over the same period.



Note: 2016 represents May 2016 for residential and YTD June 2016 for commercial and industrial.

Existing Rate Mitigation efforts are on-going:

- Ontario currently provides rate mitigation to various electricity consumer classes through a combination of tax-based and rate-based programs.
  - For example, Northern Ontario residential electricity consumers receive tax credits in recognition of higher electricity costs in the north and rural consumers receive a subsidy funded through the rate-base due to the higher cost of delivering power to rural areas.
  - As of 2016, the government removed the Debt Retirement Charge (DRC) from residential electricity bills. While this saves a typical residential electricity ratepayer about $60 per year, it is less than the benefit previously provided through the Ontario Clean Energy Benefit (OCEB).
  - The Ontario Electricity Support Program (OESP) provides ongoing assistance directly on the bills of eligible low-income electricity consumers.
  - The Industrial Conservation Initiative (ICI) encourages Ontario's largest consumers to reduce consumption during peak periods while reducing system costs.

  - The Rural or Remote Rate Protection (RRRP) program is provided to rural or remote residential and farm customers because the cost of distributing power to remote areas is much higher than for urban areas.

- Currently, electricity costs must be fully recovered from electricity consumers, rate mitigation funded through the rate-base often represents a shifting of costs from one consumer group to another (i.e., industrial to residential and commercial consumers).
  - Rate-based initiatives are generally associated with incenting changes in behaviour that provide electricity system benefits (i.e., shifting electricity consumption from on-peak to off-peak periods).

The table below shows the estimated cost shifts in the province's electricity system that result from three existing government programs (i.e., ICI, RRRP and OESP):

Cost Shift Impact	2011	2012	2013	2014	2015	2016
Residential Bill ($/month for 750 kWh)	3.55	4.07	3.85	4.46	5.68	6.55
Commercial – Class B ($/MWh)	4.74	5.43	5.14	5.94	7.57	8.73
Industrial – Class A ($/MWh)	-20.97	-25.26	-22.38	-24.68	-32.56	-31.55

Note: Negative values indicate a benefit; positive values denote an incremental charge.

Since 2013, a number of actions have and are being taken to reduce overall electricity system costs. Despite these actions to reduce system costs, electricity rates continue to increase for consumers:

- Renegotiating the Green Energy Investment Agreement, reducing contract costs by $3.7 billion;
- Deferring the construction of two new nuclear reactors at Ontario Power Generation's Darlington facility, avoiding an estimated $15 billion in new construction costs;
- Approving Ontario Power Generation's plans to enable the ongoing operation of Pickering up to 2024, which is expected to save ratepayers as much as $600 million.
- Reducing Feed-In-Tariff (FIT) prices through annual price reviews, saving ratepayers at least $1.9 billion relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast; and
- Removing an expected $3.3 billion in Large Renewable Procurement (LRP) costs relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast, based on the results of the first phase of the LRP.

The existing program costs are summarized in the table below:

($M)	2014-15	2015-16	2016-17[1]	2017-18[1]	2018-19[1]	2019-20[1]	2020-21[1]
OCEB	1,078	860	-	-	-	-	-
OREC	-	-	300	1,100*	1,200	1,200	1,200
Ending DRC[2]	-	85	330	330			
NIERP	108	120	120	120	120	120	120
NOEC	24	26	25	25	25	25	25
OEPTC[3]	429	444	450	460	470	481	481
TOTAL	1,639	1,535	1,225	2,035	1,815	1,826	1,826

1. 2016-17, 2017-18 based on forecasted numbers
2. Effective January 1, 2016. 2015-16 estimated for 3 months of reduced DRC revenue
3. OEPTC amounts in all years based on energy component of the rebate.

* Sourced from Energy PRRT submission

OCEB – Ontario Clean Energy Benefit, NIERP – Northern Industrial Electricity Rate program, DRC – Debt Retirement Charge, OREC – Ont. Rebate for Electricity Consumers, NOEC – Northern Ontario Energy Credit, OEPTC – Ont. Energy & Property Tax Credit

APPENDIX D: DETAILED INFORMATION SUPPORTING PROPOSED INITIATIVES

The Ministry is proposing the following to further mitigate electricity prices for consumers:

1. Targeted initiatives helping the most vulnerable Ontarians (Customers who are disproportionately affected by increased electricity costs) by enhancing electricity support programs and shifting cost onto the tax-base:

    - Targeted customers:
        - High Delivery Cost Customers – Some customers in rural areas where the cost to delivery electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
        - Low-Income Customers: Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
        - First Nation On-Reserve Customers: On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

    - Initiatives providing targeted assistance to ease the electricity cost burden:
      1a. Enhance the Rural or Remote Electricity Rate Protection (RRRP);
      1b. Expand the Ontario Electricity Support Program (OESP);
      1c. Establish a Local Distribution Company (LDC) Affordability Fund; and
      1d. Delivery charge relief for on-reserve First Nations customers.

2. Ongoing activities to bend the future cost curve of electricity:
    - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
    - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

3. Refinancing Global Adjustment assets in order to smooth the impacts of the Global Adjustment across ratepayers over a longer period of time.

4. Support for tenants & Supports for non-RPP Class B consumers.

1) Enhancing electricity support programs and shifting cost onto the tax-base

<u>1a) Rural or Remote Rate Protection (RRRP) Enhancement</u>

The Rural or Remote Rate Protection (RRRP) program mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.

The program, which costs approximately $242M/year is currently funded by other ratepayers. For an average residential customer, the cost of supporting RRRP is roughly $1.58 per month. For other customers, the cost to support the RRRP can range from $65 for a greenhouse to $8,000 for a medium industrial.

Part of the program helps fund the costs of Hydro One customers classified in the "R2" low density residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest delivery costs in the Province.

- From 2001-2016 the program provided $125.4M annually to help defray these costs.

- In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
- As of Jan 2017, R2 customers receive $60.50/month off their distribution costs.

While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (e.g. Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma) and Hydro One R1 customers (medium density).

The Ministry is proposing to enhance RRRP by:

- harmonizing the fixed distribution rates at $38/month for R2, R1 and the next seven highest cost LDCs (enhanced benefits for ~280,000 consumers and new cost decreases for ~420,000 consumers)
- funding its costs through the tax base from the rate base;

For this proposal, targeted RRRP consumers (an estimated 800,000 customers would benefit from this enhancement) would see additional savings in the range of $3-$22 on their monthly bill. The fiscal impact of this program is approximately $459M in 2017-18.

Implementation considerations:

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program. Legal and regulatory risks (particularly with regards to legal authority and to the Ontario Energy Board's role in setting rates and incenting efficiencies) require further analysis
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

Fiscal considerations:

- Distribution costs vary year to year.
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
TOTAL	-	459	472	484	497

1b) Ontario Electricity Support Program (OESP) Expansion

The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base. OESP credits vary by income level and family size, and there are two credit scales that include:

- The basic program credit ranges from $30/month to $50/month.
- An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.

The OESP was launched on January 1, 2016, and in just over a year:

- Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
- Almost $50 million in credits have been provided to vulnerable consumers.
- Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.

The Ministry is proposing to enhance OESP and fund its costs through the tax base by:

- increasing the existing benefit scales by an additional 50%;
- expanding the categories of OESP credits

The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes – greater access to OESP credits at smaller family sizes at different income levels)::

Existing OESP Credit Scales

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$30	$30	$34	$38	$42	$50	$50
$28,001 - $39,000			$30	$34	$38	$42	$50
$39,001 - $48,000					$30	$34	$38
$48,001 - $52,000							$30

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$45	$45	$50	$55	$60	$75	$75
$28,001 - $39,000			$45	$50	$55	$60	$75
$39,001 - $48,000					$45	$50	$55
$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$45	$45	$51	$57	$63	$75	$75
$28,001 - $39,000		$40	$45	$51	$57	$63	$75
$39,001 - $48,000			$35	$40	$45	$51	$57
$48,001 - $52,000					$35	$40	$45

Sliding Scale #2	Household Size						
Income Bracket	1	2	3	4	5	6	7+
< $28,000	$68	$68	$75	$83	$90	$113	$113
$28,001 - $39,000		$60	$68	$75	$83	$90	$113
$39,001 - $48,000			$52	$60	$68	$75	$83
$48,001 - $52,000					$52	$60	$68

For this proposal, OESP consumers would see savings of approximately $40 – $113 on their monthly bill (up from the current $30 - $75). This proposal would have a fiscal impact of approximately $186M in 2017-18 increasing to $375M by 2020-21.

Implementation and fiscal considerations:

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).

- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix require will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

Note:OESP participation ramps up to 100% year 4

1c) LDC Affordability Fund

The existing Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills. Program eligibility is aligned with other low-income support programs such as the OESP.

The Ministry is proposing to establish an Affordability Fund which would be available to LDCs only to provide similar energy efficiency measures as provided under HAP to targeted customers (i.e., those who are most in need, such as those who are facing disconnection and who cannot qualify for the low-income programs).

To establish the Fund, the government would enter into a TPA with Hydro One. The TPA would include terms for Hydro One to establish a non-controlled Trust to administer and distribute funds to LDCs across the province on the basis of principles established by the Province and implemented at the discretion of the Trustees. The Trust would distribute funds to LDCs across the province including, Hydro One, at the direction of the Trustees.

The Ministry indicates the Affordability Fund would not be used to provide grants or financial assistance to customers to forgive all or a portion of their arrears or electricity bill. It is not clear how the non-controlled independent entity (the AF Trust) would be blocked from a decision to cover arrears.

LDCs would apply for funding to the Fund administrator (Hydro One) to offer energy efficiency measures to its customers that meet the targeted eligibility criteria. Determination of eligibility could involve a number of factors and metrics:

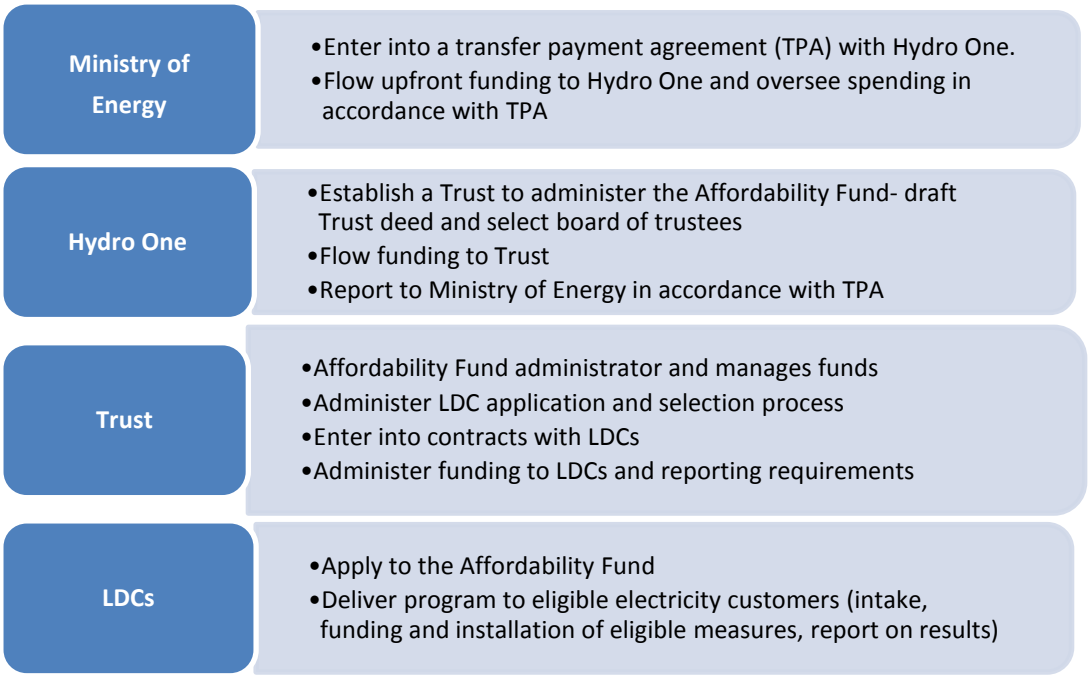
- Do not meet the definition of "low-income";
- May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
- Require financial assistance to pay for energy efficiency measures.

Recipients could receive measures (e.g. energy-saving light bulbs, programmable thermostats, cold climate air source heat pumps) ranging from $3,000 to $5,000 per customer, at no or minimal cost. As an illustration, with $200M, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

The Ministry is proposing that the Fund be provided through a one-time payment of $200M in 2016-17. Administration expense estimated to be 10% of the fund $20M, including expenses related to the Trust, Hydro One and LDCs. It is expected that the funds through the Affordability Fund will be deployed within a year (funds are expected to be exhausted by March 31, 2018). The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base.

The Ministry indicates providing the $200M immediately provides LDCs with the required upfront commitment to apply for funding and initiate planning and implementation activities.

Figure 1: Summary of Roles and Responsibilities



Implementation and fiscal considerations:

- An illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households (having met targeted eligibility criteria), depending on measures and uptake.
- Administration expense estimated to be 10% of the fund $20M, including expenses related to the Trust, Hydro One and LDCs.
- The LDC Affordability Fund would be a fiscal impact of $200 million in fiscal year 2016-17.
- The TPA will include the option to extend the original funding amount into future years in the event of under spending. The TPA will also include the option to incorporate potential future funding from the tax base.

1d) On-reserve First Nations Delivery Credit

On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve, average income is considerably lower, lower employment rates, historical grievances related to energy development on reserve lands and traditional territories, and impacts of energy infrastructure either present or due to connection delays. These challenges result in significantly higher electricity consumption levels and costs.

At the request of the Minister of Energy, the OEB worked with the Chiefs of Ontario to develop options to address these issues.

The ministry is proposing to implement the recommendations of the OEB's report:

- Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate.
- Automatically qualify on-reserve First Nations residential customers (~21,500 customers)
- Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
- Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.

The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out. The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of up to $20 million (21,494 total customers across 9 distributors). OEB notes total annual costs could range between $13M to $20M.

Implementation and fiscal considerations:

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan
- Rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. This risk is mitigated by the ameliorative purpose of the program and because targeting First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Appendix E: Ongoing Activities to Bend the Future Cost Curve of Electricity

Ontario Energy Board (OEB)

The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.

The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework. While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance. Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.

In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

The Ministry is proposing to help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation. In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses. This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

Independent Electricity System Operator (IESO)

The Ministry will continue to move forward with Independent Electricity System Operator’s (IESO) Market Renewal initiatives:

- Moving to “technology-agnostic” procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
- Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.

Changes related to IESO’s Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:

- About $1/month or less than 1% at current retail prices for a typical residential bill; and
- About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.

Appendix F: Refinancing Global Adjustment Assets To Smooth the Global Adjustment Across Ratepayers Over a Longer Time Period

At this time, the Ministry continues to work towards finalizing a structure for this initiative and plans to return to TB/MBC in Spring 2017.

The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized. The majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.

To enable this transition, generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing (including returns to shareholders), and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs. The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).

The Ministry indicates there is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs. In 2016, GA costs were $12.3 billion.

GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.

The result of this GA proposal is that cost to ratepayers remains lowered in the short term reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to $26/month. Bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021, and from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt, interest costs and administrative costs by 2048 without exceeding 10% of total electricity costs.

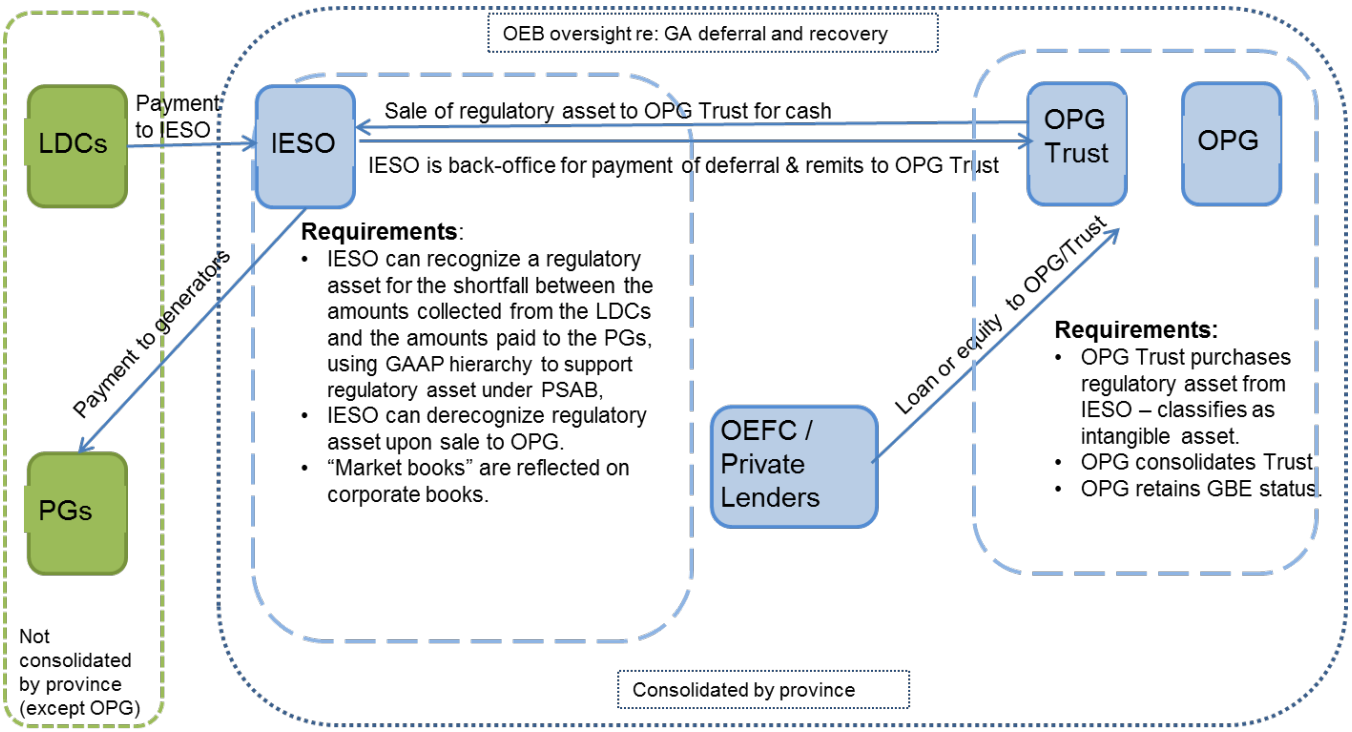
The GA Smoothing options under consideration are illustrative, the Ministry notes, targeted to RPP eligible participants, and show potential rate mitigation measures to meet a total bill savings of 25%, 20% and 18% reduction from the projected residential bill in 2017 requires a significant GA subsidy. These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month. Actual ratepayer savings would vary due to differences in consumption patterns. Graphics for 25% and 18% appear at the end of this section.

The Ministry is working through different implementation options so as to mitigate negative fiscal plan implications GA smoothing. The following table shows the projected fiscal costs related to GA smoothing without legal and accounting treatments.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

The Ministry has put forward a potential GA smoothing structure, as well as interactions between the sector entities and elements required to meet accounting objectives. The Proposed structure is still subject to legal, financing and accounting confirmation, and absent confirmation there would be a fiscal impact to the province.



The Ministry acknowledges analysis of the proposed structure is not complete and that there are several requirements still pending related to IESO and OPG that are high risk regarding resolution.

If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase on income from OPG.

- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.

Policy, Legal, Fiscal, Accounting considerations:

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.

    - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumers, further increasing future costs for individual ratepayers.

- Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices. A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs

- If Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA Smoothing (i.e., because it is only targeted to RPP consumers) – consideration could be given to provide tax-based measures to off-set electricity costs (e.g., tax-credits, programs, etc).

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

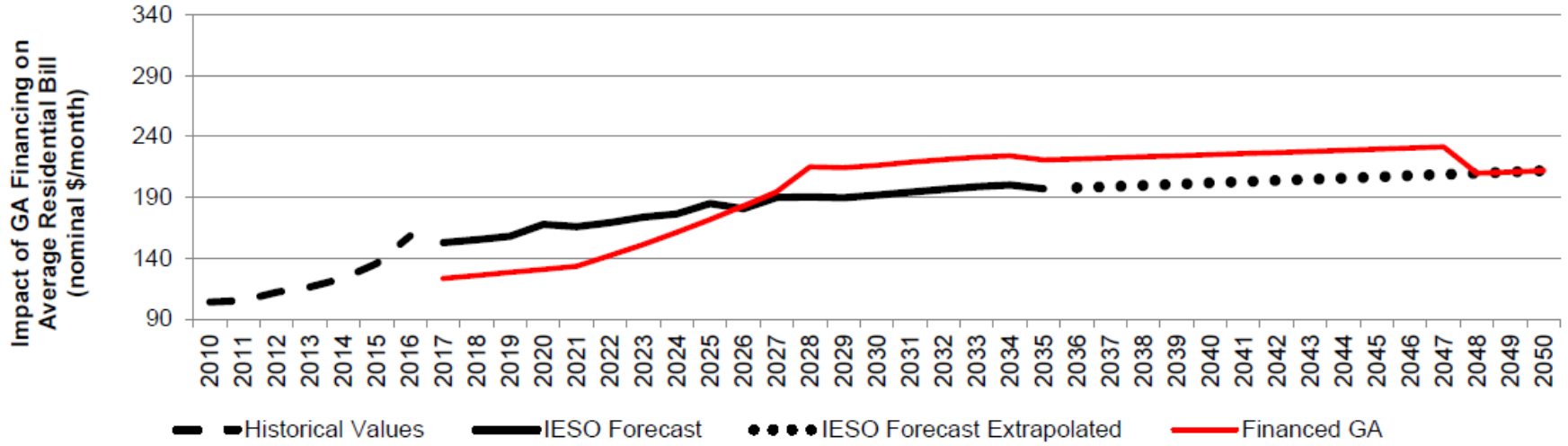
- The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation.

    - A proposal for refinancing the GA that appears to cross-subsidize near-term consumers at the expense of long-term consumers by back-loading costs more than if costs were spread equally over the estimated lifespan of generation and conservation assets presents a moderately high risk (more likely than not) of constituting a tax.

      Were the charge characterized as a tax, in the event of a challenge, it would be struck down by a court as unconstitutional and consumers would be entitled to recover their payments. This risk could be eliminated, either up front or retroactively, by the imposition of a valid tax.

- There is risk for any potential no fiscal impact implementation structure for GA smoothing given that the Ontario Auditor General has raised concerns about recognizing rate regulated assets and liabilities in previous Annual Reports.

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

Appendix G: Support for Tenants & Supports for Class B – Conservation Efforts

Support for Tenants:

The Ministry of Energy and the Ministry of Housing have explored whether it is possible to extend these programs to tenants who do not pay their own electricity bills.

The Residential Tenancies Act (RTA) governs the relationship between landlords and tenants. While it may be possible to use the RTA to direct landlords to pass on savings such as the 8% Rebate to tenants, there would be significant complexities with such an approach (E.g., different metering configurations including bulk metering, individual, both combined in a building; enforcement to ensure rebates based on; and to distinction if it only applies to pre-1991 buildings that are covered by rent controls)

The Ministry of Energy and the Ministry of Housing have concluded that the most vulnerable consumers in the province in social housing do benefit indirectly from the existing mitigation measures such as the 8% Rebate. Social housing providers do receive the 8% Rebate, which allows them to offset some of their electricity costs, and can use these savings for other issues related to the building.

Support for non-RPP Class B electricity consumers

Non-RPP Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

Non-RPP Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers). The Ministry notes, the cost of electricity for Class B consumers has risen faster than CPI.

- Further lower the threshold for participation in the Industrial Conservation Initiatives (ICI) below the current 1MW, which was recently approved – takes effect July 2017. Sector restrictions would be included. It could be narrowed to a specific sector – allow only manufacturers below 1 MW to participate.
    - Cost would be covered by other ratepayers. Ministry's preliminary analysis notes an increase of just over $1/month increase for a typical residential bill.
    - Regulatory amendments need to be made before end of April 2017 (due to putting it in place before next 12 month billing period beginning Jul 1 ,2017)
- Eliminate DRC earlier than scheduled April 2018 for all non-RPP Class B consumers (Saves $7/MWh)
    - Shift Class B DRC to Class A consumers
    - Partially reduce Class B DRC (A $148M fiscal impact if lowered by 50% to $3.50/MWh)
    - Remove DRC completely for Class B (fiscal impact estimated at $295M in 2017-18)

- DRC Benefit Voucher – Class B customers would receive a voucher equivalent to all or a portion of their DRC charges on their electricity bills. The customer would use this voucher to increase or 'top-up' incentive amounts available through the Ontario Climate Change Solutions Deployment Corporation (OCCSDC). Vouchers could incent higher participation towards OCCSDC programs, helping these customers transition to a low-carbon economy.
    - Vouchers could be funded either through the GGRA if the voucher can be linked to GHG reductions, or the tax base. It is estimated that the outstanding balance for DRC relating to Class B customers from April 1, 2017 to March 31, 2018 is approximately $295M.
    - Not all Class B customers may be able to benefit from the vouchers (e.g. a facility with limited ability to implement new energy efficiency measures).
    - LDCs may need to make changes to their administrative processes and billing systems in order to confirm value of voucher.

APPENDIX H: ILLUSTRATIVE BILL IMPACT

The follow table show electricity bill impact of 25% reduction..

GA Smoothing for <u>RPP Eligible Only</u> – Residential Bills Lowered 25% (with Government Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
    1. 56% from capital markets; and
    2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: Re: Ontario Fair Hydro Plan
Date: Friday, April 21, 2017 8:01:39 AM

Thanks!

> On Apr 20, 2017, at 6:17 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:
>
>
> Hey John - here's the latest legislation
>
> From: Kacaba, Jennifer (ENERGY)
> Sent: April 20, 2017 5:59 PM
> To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
> Cc: Calwell, Carolyn (ENERGY/MEDEI/MRI); 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS); Johnson, Paul (ENERGY/MEDEI/MRI)
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> We have not had the opportunity to add notes or to update our crosswalk to the Blakes summary document.
>
> We look forward to receiving your written comments.
>
> Jennifer
>
>
> Jennifer J. Kacaba
> Counsel
> MAG Civil Law Division
> Ministries of Energy / Economic Development & Growth /
> Research, Innovation & Science / Infrastructure / Accessibility
> 56 Wellesley Street West, 18th Floor.

> Toronto
> M7A 2E7
> (416) 212-4867
>
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> Sent: April 17, 2017 12:00 PM
> To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
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> Subject: RE: Ontario Fair Hydro Plan
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> Please find attached a further turn of the consultation draft. This document continues to be a work in progress. We have not had the opportunity to add notes or update our tracking table. We also have not yet considered the comments that we received this morning. We look forward to seeing you at 1.
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> Jennifer
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> Jennifer J. Kacaba
> Counsel
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> Toronto
> M7A 2E7
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>
>
>
> From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
> Sent: April 15, 2017 10:06 PM
> To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com<mailto:Leslie.Wong@opg.com>; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com<mailto:tyler.mcauley@opg.com>); John.S.Lee@opg.com<mailto:John.S.Lee@opg.com>; JUDY.WILSON@blakes.com<mailto:JUDY.WILSON@blakes.com>; Stephen.Ashbourne@blakes.com<mailto:Stephen.Ashbourne@blakes.com>; Bryson.Stokes@blakes.com<mailto:Bryson.Stokes@blakes.com>; 'Alan Hibben' (alan.hibben@rogers.com<mailto:alan.hibben@rogers.com>); Brad.Purkis@tdsecurities.com<mailto:Brad.Purkis@tdsecurities.com>; Maharukh.Hilloowala@tdsecurities.com<mailto:Maharukh.Hilloowala@tdsecurities.com>; Michael.Wolff@tdsecurities.com<mailto:Michael.Wolff@tdsecurities.com>; Harold.Holloway@tdsecurities.com<mailto:Harold.Holloway@tdsecurities.com>; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com<mailto:Gary.Nevison@tdsecurities.com>); Thom, Trevor (Trevor.Thom@tdsecurities.com<mailto:Trevor.Thom@tdsecurities.com>); Akman, Steven (Steven.Akman@tdsecurities.com<mailto:Steven.Akman@tdsecurities.com>); Thompson, Susan (Susan.Thompson@tdsecurities.com<mailto:Susan.Thompson@tdsecurities.com>); Manii, David (david.manii@tdsecurities.com<mailto:david.manii@tdsecurities.com>); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca<mailto:michael.boll@ieso.ca>; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca<mailto:maryanne.aldred@ontarioenergyboard.ca>; Petsche, Nadine (TBS)
> Cc: 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com<mailto:suzie.r.gignac@ca.ey.com>); Blake Langill (blake.w.langill@ca.ey.com<mailto:blake.w.langill@ca.ey.com>); LeeAnne.Probert@ca.ey.com<mailto:LeeAnne.Probert@ca.ey.com>; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
> Subject: Ontario Fair Hydro Plan
>
> All - Please find attached the draft “Intergenerational Fairness in Hydro Rates Act, 2017”. A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.
>
> For ease of reference, included with the draft bill are the partially updated Blakes’ summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.
>
> In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday
>
>
>
> Carolyn Calwell
> Legal Director

> MAG Civil Law Division
> Ministries of Energy / Economic Development & Growth /
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> 416-212-8392
>
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>
>
> <Fair Hydro Plan Act (April 20 2017) Consultation v3.docx>

From: John Kim
To: Montgomery, Kaitlin (MOF)
Subject: Re: Ontario Fair Hydro Plan
Date: Thursday, April 27, 2017 7:49:30 AM

Thanks. Have a request for you. Do you have the appendix to the fhp cabsub? I have not seen it but heard someone refer to recently.

On Apr 26, 2017, at 6:47 PM, Montgomery, Kaitlin (MOF) <Kaitlin.Montgomery@ontario.ca> wrote:

> Latest – though I understand there might be a revised version coming tomorrow (will pass along when I see)
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 26, 2017 6:36 PM
> **To:** Montgomery, Kaitlin (MOF)
> **Subject:** FW: Ontario Fair Hydro Plan
>
> fyi
>
> ---
>
> **From:** Kacaba, Jennifer (ENERGY)
> **Sent:** April 26, 2017 12:39 PM
> **To:** Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
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> **Subject:** RE: Ontario Fair Hydro Plan

All - Thank you for the detailed comments that you provided on Saturday and Sunday. Please find attached the next turn of the legislation. We have tried to balance the comments that we received to address the points that you have raised. This draft does not reflect the drafting points that were raised over Monday and Tuesday and we will reflect those points in our next instructions to legislative counsel. Please review and identify any significant substantive issues by 6 p.m. today. We continue to work toward pens down on Friday, meaning the draft that we have at that point in time will be proposed for introduction in the House. Thank you again for your contributions to this process.

Jennifer

Jennifer J. Kacaba
Counsel
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
56 Wellesley Street West, 18th Floor.
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To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com; Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS); rramchandani@torys.com
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From: Kacaba, Jennifer (ENERGY)
Sent: April 17, 2017 12:00 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV'

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M7A 2E7
(416) 212-4867

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From: Calwell, Carolyn (ENERGY/MEDEI/MRI)
Sent: April 15, 2017 10:06 PM
To: Rehob, James (ENERGY); Shear, Dan (ENERGY); Kacaba, Jennifer (ENERGY); Nelms, Scott (MOF); Hume, Steen (ENERGY); Christie, Tim (ENERGY); Leslie.Wong@opg.com; 'MCAULEY Tyler -LAWDIV' (tyler.mcauley@opg.com); John.S.Lee@opg.com; JUDY.WILSON@blakes.com; Stephen.Ashbourne@blakes.com; Bryson.Stokes@blakes.com; 'Alan Hibben' (alan.hibben@rogers.com); Brad.Purkis@tdsecurities.com; Maharukh.Hilloowala@tdsecurities.com; Michael.Wolff@tdsecurities.com;

Harold.Holloway@tdsecurities.com; 'Niehaus, Katrina'; 'Benaiah, Ian'; Nevison, Gary (Gary.Nevison@tdsecurities.com); Thom, Trevor (Trevor.Thom@tdsecurities.com); Akman, Steven (Steven.Akman@tdsecurities.com); Thompson, Susan (Susan.Thompson@tdsecurities.com); Manii, David (david.manii@tdsecurities.com); 'Feldman, Michael'; 'Persaud, Donnie - Debt Capital Markets'; 'Hill, Krista'; 'Turnbull, Vickie'; 'Dal Bello, David'; 'Mansoori, Nina'; 'Sebastiano, Rocco'; 'Fitzpatrick, Michael F.'; michael.boll@ieso.ca; Kim Marshall; Veinot, Cindy (TBS); 'Glenn Zacher'; 'O'Brian, Adam'; 'Emes, Aaron'; 'Peter Hamilton'; 'JORDA Jenny -FIN & C CTRL'; maryanne.aldred@ontarioenergyboard.ca; Petsche, Nadine (TBS)
Cc: 'Myers, Jonathan'; Suzie Gignac (suzie.r.gignac@ca.ey.com); Blake Langill (blake.w.langill@ca.ey.com); LeeAnne.Probert@ca.ey.com; Kandeepan, Ken (OFA); Hosick, Sarah (TBS)
Subject: Ontario Fair Hydro Plan

All - Please find attached the draft "Intergenerational Fairness in Hydro Rates Act, 2017". A tremendous amount of work has gone into getting to this draft and much more work is required to get this ready for the House. The goal of sharing this document now is to further the process we have engaged in over the last weeks. In the attached, we have included notes to try to address where the drafting is not yet consistent with our thinking. These notes are neither comprehensive nor complete. They are intended only as flags and as colour to the draft. We have not forgotten the comments that you have already provided and we are continuing to working through the translation of the commercial terms we have been discussing into legislative language.

For ease of reference, included with the draft bill are the partially updated Blakes' summary, a chart that attempts links the articles in that document to the sections of the bill (which is imperfectly numbered at best) and excerpts from the Electricity Act and the Ontario Energy Board Act, related to the consequential amendments.

In your review, please focus on the broad stroke concepts, rather than the minutia, and keep in mind the cascade of instruments that will be required – legislation first, then regulations and finally commercial agreements. We look forward to discussing the broader concepts on Monday

Carolyn Calwell
Legal Director
MAG Civil Law Division
Ministries of Energy / Economic Development & Growth /
Research, Innovation & Science / Infrastructure / Accessibility
416-212-8392

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<Fair Hydro Plan Act (April 26 2017) Consultation v4.docx>

From: Ronald Kwan
To: John Kim
Subject: Re: PILs Exemptions
Date: Tuesday, April 25, 2017 5:22:06 PM

Hi,

I assume this is to protect the interest revenue OPG earns from its sub-debt to the SPV.

PILs would hurt OPG's ROE and bottom line.

No net fiscal impact for the Province on PILs vs net income, but would the Province want a higher ROE to protect the asset value of the equity on the Province's books?

Ron

On Apr 25, 2017, at 4:45 PM, Ronald Kwan <Ronald.Kwan@ofina.on.ca> wrote:

> Hi,
>
> I interpreted the "As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust" that the reference was revenues from the Trust to OPG that they are seeking a PILs exemption for, so, different than I had understood.
>
> Ron
>
> ---
>
> **From:** Nelms, Scott (MOF) [mailto:Scott.Nelms@ontario.ca]
> **Sent:** April-25-17 15:49
> **To:** Ronald Kwan <Ronald.Kwan@ofina.on.ca>; John Kim <John.Kim@ofina.on.ca>
> **Subject:** PILs Exemptions
>
> Hi Ron, John,
>
> I wanted to keep you apprised of where we are with Tax Policy on OPG's request for specific PILs exemptions as part of OFHP. See below for details – we are hoping to punt to regulations.
>
> Thanks,
> Scott
>
> ---
>
> **From:** Nelms, Scott (MOF)
> **Sent:** April 25, 2017 3:25 PM
> **To:** 'Hill, Krista'; john.s.lee@opg.com
> **Cc:** RYFA Ken -TREASURY; WONG Leslie -LAWDIV; Wortsman, Jerald; Watson, Gwen; Feldman, Michael; Calwell, Carolyn (ENERGY/MEDEI/MRI); Rehob, James (ENERGY)

Subject: RE: Comments

Hi Krista, John,

We shared your ask with Finance Tax Policy and they have been mulling this over for the past few days. We had a conversation this morning and I wanted to provide a synopsis of that call:

- Tax Policy is of the view that if this is structured as a Trust will be a taxable entity under the Income Tax Act. However, because OPG is the beneficiary of the Trust, it will not pay any taxes. For greater certainty, Tax Policy suggested seeking a ruling from CRA. If necessary, we could seek an exemption from CRA (there is precedent with the Nuclear Funds Trust). Please let me know whether that is consistent with your assessment.
- Since all income from the Trust will flow to OPG, all revenues would be subject to PILs (unless we take action to make specific exemptions).
- As we discussed last week, we have proposed the language that you provided with PILs exemptions for specific earning streams from the trust.
- Tax Policy has a number of questions about how to define those exempted revenue streams and the rationale for those exemptions. They want considerably more detail and more time to consider this issue.
- According to Tax Policy, existing Legislation (James I will leave it to you to describe) provides authority to set out PILs exemptions in regulations. Therefore they suggest we do not need to add anything in to the OFHP legislation at this time. That will provide time to more fully consider the issue and discuss the need for these exemptions.
- I suggested I was generally comfortable with this approach, subject to input from OPG and Torys. I think it is better for us to have more time and the flexibility to include these provisions in regulations. Given where we are in the process, I think we are out of time to settle legislative language that will work for Tax Policy.

James, please feel free to add / modify if I missed anything. Please let us know ASAP if you have concerns.

Scott

From: Ronald Kwan
To: John Kim
Cc: Gavin He
Subject: Re: Rate Mitigation Implementation Meeting - April 6, 2017
Date: Wednesday, April 05, 2017 7:40:54 PM
Attachments: BN - GA Equity Injection Structure v6_Markup3.docx

---

Hi John,

Just had a quick review and made a few comments. When it ultimately goes out, note that it has not been ADM-approved, nor has the DMO been looped in yet.

Thanks,
Ron

From: John Kim
Sent: April 5, 2017 5:33 PM
To: Ronald Kwan
Cc: Gavin He
Subject: RE: Rate Mitigation Implementation Meeting - April 6, 2017

Hi Ron,

Thanks.

On the note we shared with you on Monday, attached above, would you be okay with us sharing the draft with OPG? We have CMD's comments and also EIGS' comments are imminent.

Thanks,

John

From: Ronald Kwan
Sent: Wednesday, April 05, 2017 5:29 PM
To: John Kim <John.Kim@ofina.on.ca>
Cc: Gavin He <Gavin.He@ofina.on.ca>
Subject: Fwd: Rate Mitigation Implementation Meeting - April 6, 2017

Hi John,

FYI.

Ron

Begin forwarded message:

From: Gadi Mayman <Gadi.Mayman@ofina.on.ca>
Date: April 5, 2017 at 5:22:25 PM EDT
To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>, Ken Kandeepan <Ken.Kandeepan@ofina.on.ca>, Mike Manning <Mike.Manning@ofina.on.ca>
Cc: Anna Strathy <Anna.Strathy@ofina.on.ca>, Gavin He <Gavin.He@ofina.on.ca>
Subject: Fw: Rate Mitigation Implementation Meeting - April 6, 2017

From: Katona, Keley (ENERGY) <Keley.Katona@ontario.ca>
Sent: Wednesday, April 5, 2017 5:09 PM
To: Steen Hume (CAB); Kaili Sermat-Harding (ENERGY); Michael Reid (ENERGY); Carolyn Calwell (MCSS); Scott Nelms (ENERGY); 'jeffrey.lyash@opg.com' (jeffrey.lyash@opg.com); HARTWICK Ken -FINANCE (ken.hartwick@opg.com); Rosemaire Leclair; Mary Anne Aldred (maryanne.aldred@ontarioenergyboard.ca); Campbell, Bruce (bruce.campbell@ieso.ca); Kim Marshall (Kim.Marshall@ieso.ca); Scott Thompson (CAB); Helen Angus (MOHLTC); Steven Davidson (MTCS); 'Martine Band'; 'CROZZOLI Carlo -CBUSDEV&STRT'; Gadi Mayman; LEE John -TREASURY
Cc: Serge Imbrogno (ENERGY); Andrew Teliszewsky (ENERGY); Matt Whittington (ENERGY); Baker, Carys (ENERGY); Kyle MacIntyre (MOF); David McLean (MOF); Robert Foster (MOF); jordan.penic@ieso.ca; 'sarah.branco@ontarioenergyboard.ca'; Turnevicius, Lorraine; catriona.king@opg.com; Francesca Bungaro-Yemec (ENERGY)
Subject: Rate Mitigation Implementation Meeting - April 6, 2017

Good evening,
Please find attached material for tomorrow's meeting.
Keley

Keley Katona | Director of Operations
Deputy Minister’s Office | Ministry of Energy
Tel: 416-326-7688 | BB: 647-980-4634
E-mail: Keley.Katona@Ontario.ca<mailto:Keley.Katona@Ontario.ca>
4th Floor, Hearst Block, 900 Bay Street

GA FINANCING – EQUITY INJECTION OVERVIEW

This document serves to provide an overview of the implementation mechanism, timelines and other issues for the GA Financing and the Equity Injection for Ontario Power Generation (OPG) from the Province.

OVERVIEW

- The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to support the implementation of the equity injection portion of the proposed ~~implement a~~ Global Adjustment (GA) smoothing mechanism.
- Under the proposed GA smoothing mechanism
  - OPG will develop a Special Purpose Vehicle (SPV), referred to in this BN as "OPG Trust", to purchase the "right to collect" assets from the IESO in return for cash proceeds.
  - OPG Trust will be structured to finance on its own 51% of its funding requirements through the capital markets, with the remaining 49% being provided by OPG as subordinated debt.
    - The 49% subordinated debt from OPG will be financed by OPG through debt from the capital markets (5%) and through equity injections from the Province (44%).
    - Annual payments will be received by OPG Trust for financing costs.
      - Staff Comments: Unclear if these financing costs/annual payments will be received by OPG [TBC: from IESO or ratepayers directly]?
- The mechanism by which the financing is conducted is yet to be finalized. Both OPG on behalf of OPG Trust and the OFA on behalf of the Province are separately looking to engage 'financial advisors' for the purpose of determining optimal financing structures, e.g., debt covenants, terms and conditions such as if to be callable, redeemable, etc. [Also see below.]

BORROWING

- [For each GA settlement period, (?),] ~~T~~the 51% financing conducted by OPG Trust and the 5% financing via OPG will initially be financed through a short term credit facility that~~which~~ will be obtained by OPG. OPG has communicated that this may be through short term debt, raised from the Canadian money markets.

Commented [KR(1]:

Formatted: 7. Bullet 2

Commented [JK2]: Check with SIFB or CMD on the right terminology.

Commented [FC3]: To me this is part of the terms and conditions

- OPG staff further clarified that this would be facilitated through a new facility and to be put in place by OPG Trust and not any of the existing facilities OPG currently has in place.

- Longer term debt will be issued as soon as possible, subject to market timing constraints.
  - OPG to retain 3 dealers to advice on the long-term borrowing and financing of the GA.
  - The OFA is also expected to retain a dealer to provide due diligence and independent advice for the Province's equity injection [TBC] into OPG and long-term borrowing by OPG Trust [TBC].
- The long term debt issued by OPG Trust may also be callable to buy back the bonds once the financed GA starts to be repaid. [TBC]

Commented [JK4]: Did I get this right?

Commented [FC5]: If this is the case wouldn't they need a minimum amount of equity to be put in the Trust at the onset? I'm assuming OPG nor the Province will be providing a back stop to the Trust.

Commented [KR(6R5]: Or rather, financing from OPG into the Trust at the outset?

Commented [JK7]: I understood OFA's interest was more on how to structure its borrowing than other aspects but open to hearing different view.

Commented [JK8]: Why would OFA's borrowing be different? Carlos mentioned certain features, though would involve premiums?

EQUITY INJECTION MECHANISM

OVERVIEW

- The Province is expected to provide monthly equity injections to OPG
- In return, OPG would issue new shares to the Province at a value of $20 per share.
- These share issuances currently environed to be redeemable by the Province and OPG may also have rights to buy back the shares [TBC].
  - This would provide the Province with a flexible mechanism to redeem its equity investment in OPG, and allow OPG to return to a more suitable capital structure as ~~once~~ the GA financing program ~~has~~ subsides / begins to reduce its accumulated debt~~d~~.
  - Redeemable terms may include a lock-out period that permits the Province to redeem after a set time period.
  - [TBC] Shares may be considered preferred shares. Unclear whether at redemption these shares will have a non-par value (ie. not $20 per share).

Commented [FC9]: Not quarterly?

Commented [JK10]: Monthly now.

Commented [FC11]: Redeemable rights are really a call or put option and should be priced accordingly. In absence of this one of the parties is providing a subsidy to the other side.

Commented [KR(12]: Appropriate wording?

PROCESS

- OPG Trust would receive ~~the~~monthly (?) notice to purchase the amount of (?) asset from IESO.
- A notice would be received from OPG by the OFA for 44% of the asset for the equity injection.

- Separately, OPG and OPG Trust would take out debt from the capital markets totalling 56% of the IESO asset value.
- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

LEGISLATION, APPROPRIATIONS APPROVALS PROCESS AND TIMING

- The proposed timing for the legislation is May~~, early June~~.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] [Energy] would bring forward a TB submission ~~TBS would~~to provide for an annual allocation for an appropriation for the equity injection (an operating asset (?)), with a three-year program review cycle.

Electricity Finance Branch / Corporate and Electricity Finance Division, Ontario Financing Authority
April 4, 2017

Commented [SQ213]: [TBC whether 5 business days required for OFA to provide payment to OPG or whether 5 business days is for the entire process of OFA->OPG->OPGT].

Commented [KR(14]: Likely need to beef this up and the status of this process and discussion with TBS staff.

Should likely also confirm with OPCD how this will be recorded.

And in which ministry the new equity in OPG will be recorded.

From: Ronald Kwan
To: Francisco Chinchon
Cc: John Kim
Subject: Re: TDS_v2p
Date: Friday, April 21, 2017 11:43:22 AM

Sure.

Let's discuss.

In the meantime, ok to send the markup.

Ron

> On Apr 21, 2017, at 11:42 AM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:
>
> I agree, indeed I tried to ask a similar question at the last meeting with CMD staff but the only answer/message I received was that they are very focused on (1) ensuring there is lending in one form or another through the OFA (2) ensuring the Province can get its money back at maturity or when it decides to do so.
>
> I went a step forward and asked/flagged that I don't fully understand why it needs to be through here given they don't seem to believe common equity would work...
>
> Maybe is easier to brainstorm if we find 5 min to discuss later today.
>
>
>
> -----Original Message-----
> From: John Kim
> Sent: Friday, April 21, 2017 11:38 AM
> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> Subject: RE: TDS_v2p
>
> I think the sub-text is CMD's and maybe FTD's desire to spell out making sure getting its money back.
>
> Any other views, Francisco?
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: Friday, April 21, 2017 11:37 AM
> To: John Kim <John.Kim@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> Subject: TDS_v2p
>
> Hi,
>
> I made a few edits.
>
> That said, as sole shareholder, the risk of equity in OPG is a general one, not specific to the equity for the SPV, so I'm not sure why this is being pursued, unless the concern is providing for if the Province is at some point not the sole shareholder. Is that the sub-text?
>
> Ron
>

From: Ronald Kwan
To: John Kim; Francisco Chinchon
Subject: Re: TDS_v2p
Date: Friday, April 21, 2017 11:54:27 AM

Hi John,

My understanding of the earlier discussions was that there should at least a return on this, though more like a debt-rate of return, with the possibility of a spread (or a loss). Is that still not the case?

Is there an accounting risk of saying this is not equity, but a loan to OPG? I would think OPG wants to avoid that too, so that it's capital structure is not messed up (one purpose of the equity injection structure, I thought), and, thus, would have been holding firm on getting a cost of capital embedded in the regulatory asset it is supposed to be buying on a commercial basis.

Is that right?

Ron

From: John Kim
Sent: April 21, 2017 11:45:02 AM
To: Ronald Kwan; Francisco Chinchon
Subject: RE: TDS_v2p

Thanks, I'm thinking of adding a bullet at the end...

· In order to ensure continued treatment of OPG as a government business enterprise (GBE), the Province would want to avoid the appearance of providing zero or low interest loan.

-----Original Message-----
From: Ronald Kwan
Sent: Friday, April 21, 2017 11:43 AM
To: Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
Cc: John Kim <John.Kim@ofina.on.ca>
Subject: Re: TDS_v2p

Sure.

Let's discuss.

In the meantime, ok to send the markup.

Ron

> On Apr 21, 2017, at 11:42 AM, Francisco Chinchon <Francisco.Chinchon@ofina.on.ca> wrote:
>
> I agree, indeed I tried to ask a similar question at the last meeting with CMD staff but the only answer/message I

received was that they are very focused on (1) ensuring there is lending in one form or another through the OFA (2) ensuring the Province can get its money back at maturity or when it decides to do so.
>
> I went a step forward and asked/flagged that I don't fully understand why it needs to be through here given they don't seem to believe common equity would work...
>
> Maybe is easier to brainstorm if we find 5 min to discuss later today.
>
>
>
> -----Original Message-----
> From: John Kim
> Sent: Friday, April 21, 2017 11:38 AM
> To: Ronald Kwan <Ronald.Kwan@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> Subject: RE: TDS_v2p
>
> I think the sub-text is CMD's and maybe FTD's desire to spell out making sure getting its money back.
>
> Any other views, Francisco?
>
> -----Original Message-----
> From: Ronald Kwan
> Sent: Friday, April 21, 2017 11:37 AM
> To: John Kim <John.Kim@ofina.on.ca>; Francisco Chinchon <Francisco.Chinchon@ofina.on.ca>
> Subject: TDS_v2p
>
> Hi,
>
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>
> That said, as sole shareholder, the risk of equity in OPG is a general one, not specific to the equity for the SPV, so I'm not sure why this is being pursued, unless the concern is providing for if the Province is at some point not the sole shareholder. Is that the sub-text?
>
> Ron
>

From: John Kim
To: Gavin He
Cc: Bruno Amara
Subject: Re: "Fair" Legislation (Discussion Draft)
Date: Friday, April 07, 2017 11:04:32 AM

Could you share with Bruno, Shajee and Adam? I'd like Adam to review and update the summary.

On Apr 7, 2017, at 10:55 AM, Gavin He <Gavin.He@ofina.on.ca> wrote:

From: Calwell, Carolyn (ENERGY/MEDEI/MRI) [mailto:Carolyn.Calwell@ontario.ca]
Sent: Friday, April 07, 2017 10:30 AM
To: Gavin He <Gavin.He@ofina.on.ca>
Cc: Joseph Pau (MEDTE/MRI) <Joseph.Pau@ontario.ca>
Subject: Fw: "Fair" Legislation (Discussion Draft)

Here is the most current mark up

From: ASHBOURNE, STEPHEN <STEPHEN.ASHBOURNE@blakes.com>
Sent: Friday, April 7, 2017 1:22 AM
To: Feldman, Michael
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Watson, Gwen; Rehob, James (ENERGY); Alan Hibben; Shear, Dan (ENERGY); Calwell, Carolyn (ENERGY/MEDEI/MRI); O'Brian, Adam; Fitzpatrick, Michael F.; STOKES, BRYSON; VINER, JON
Subject: "Fair" Legislation (Discussion Draft)

Thanks for your comments, Michael. The attached version picks up many of your, Peter's and H&W's comments. In some cases it defers consideration, pending dealer input (such as your suggestion of tracking individual, standalone Regulatory Assets per transaction; delinking the investors from the LDCs, in favour of having IESO be the main servicer; and deleting some of the US precedent language). The regulatory input included in your mark-up was particularly helpful, although not easily dealt with tonight without the Province's input, so many of those points have simply been brought forward with additional footnotes for now. The manner and extent of delegations (primarily the Financing Plan and the Fair Allocation Plan), the nature of OEB review and regulatory actions, the scope of the undertaking and other similar issues, are still under consideration by MOE. Your comments to the effect that nothing can affect a funding obligation once incurred were referenced, as I think that is a pervasive and correct idea. The ultimate location of provisions (Part of the Electricity Act; new Act; Regulations) is still under consideration – for now it's all in this document to facilitate this group review. Finally, there are a number of "validity" type points, which arose in

your mark-up and which we are still thinking about. We can discuss those further in the morning. Steve

Stephen R. Ashbourne
Partner
stephen.ashbourne@blakes.com
Dir: 416-863-3086

<image2369c8.GIF>

Blake, Cassels & Graydon LLP
199 Bay Street, Suite 4000, Toronto ON M5L 1A9
Tel: 416-863-2400 Fax: 416-863-2653
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From: Feldman, Michael [mailto:mfeldman@torys.com]
Sent: Thursday, April 06, 2017 4:26 PM
To: ASHBOURNE, STEPHEN
Cc: JACKSON, ADAM; Peter Hamilton (PHamilton@stikeman.com); LEE John -TREASURY; RYFA Ken -TREASURY; WONG Leslie -LAWDIV; MCAULEY Tyler -LAWDIV; WILSON, JUDY; STOKES, BRYSON; Hill, Krista; Ramchandani, Rima; Keizer, Charles; Myers, Jonathan; Emes, Aaron; Mansoori, Nina; Wortsman, Jerald; Bomhof, Scott; Estey, Bill; Feldman, Michael; Watson, Gwen; James.Rehob@ontario.ca; Alan Hibben; 'Shear, Dan (ENERGY)'; Carolyn.Calwell@ontario.ca; O'Brian, Adam; Fitzpatrick, Michael F.
Subject: Torys Comments on Blakes Draft Legislation

All,

I am attaching our comments on the last version of the draft legislation sent to us by Blakes. Both a clean and blacklined version are attached.

This is being distributed to OPG at the same time as everyone else and so remains subject to their comments as this is very much a work in process.

We also just received comments from Hunton & Williams but in the interests of time we have not been able to include those in our mark up, but expect to be in a position to raise any of their big issues at our meeting tomorrow. Also, I will send their comments separately to Blakes.

Regards,

Michael K. Feldman

P. 416.865.7513 | F. 416.865.7380 | 1.800.505.8679
79 Wellington St. W., 30th Floor, Box 270, TD South Tower
Toronto, Ontario M5K 1N2 Canada | www.torys.com

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<23107566-v8-Part V.2 of the Electricity Act (Fair Hydro).DOCX>

<23107566-vpdf-Part V.2 of the Electricity Act (Fair Hydro).PDF>

From: Lewis, Robin (MOF)
To: John Kim
Subject: SPV
Date: Wednesday, April 26, 2017 8:05:38 AM

John,

There were no materials for yesterday's meeting. You may be aware that OPG is seeking a PILs exemption for certain income generated by the SPV.

At this point, we are unaware of any reason to exempt the income from the SPV which is anticipated to be small.

Regards,

Rob

Rob Lewis | Legislation Design | Corporate & Commodity Taxation Branch | Ministry of Finance
robin.lewis@ontario.ca | 416.212.6163 | 95 Grosvenor St, 2nd Fl. Toronto, ON M7A 1Z1

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From: Gavin He
To: John Kim; Bruno Amara
Subject: TBS Rate Mitigation Update - Minister"s Briefing
Date: Wednesday, April 19, 2017 6:04:26 PM
Attachments: TBS Rate Mitigation Update - Minister"s Briefing_20170418.pdf

---

Hi John/Bruno,

Please find attached a copy of the Minister's briefing deck on Rate Mitigation that Gadi attended with TBS yesterday. Please review and let me know if you have any comments on this.

Thanks,
Gavin He

Ron K.

TBS

Rate Mitigation Update

Minister's Briefing

April 18, 2017

Agenda

- Background
- Timelines
- TBS work streams
- Update on components of plan
  - GA refinancing
  - Affordability fund
  - Social programs – OESP, RRRP, FNORDC
  - ICI
- Next steps

NT a Securitization structure, even though that's where the bankers and lawyers come in with that mindset

Background

TBS

- The proposed Global Adjustment smoothing option would reduce RPP eligible residential bills by 25%, and cap rate increases for the next four years at the Consumer Price Index (CPI).
- Subsequent years would be set above CPI in order to ensure that bill increases related to the deferred GA amounts are capped at around 10% of the total bill while allowing for repayment of related financing and administrative costs over the recover term ending by 2047.
- People with low incomes, those served by local distribution companies (LDCs) with the highest distribution costs, OESP recipients and On-Reserve First Nation households are expected to benefit from even greater reductions to their electricity bills.
- These new measures will cost the government up to $2.5 billion over the next three years. Assuming GA refinancing is not on the tax base

Source: Ministry of Energy Technical Briefing Deck

Timelines

TBS

- AG briefing on April 19, 2017 (ENERGY Lead)

- Approval dates:
  - TB – May 1, 2017 now May 9th likely
  - LRC -- GA refinancing – May 1 2017, other legislation – complete
  - Cabinet -- May 3, 2017

everything else moves back a week

- Legislation introduced May 4, 2017.
  - Opposition Briefing (TBD)

- Effective dates
  - In place now – Affordability Fund
  - May 1 – GA Refinancing (retroactive); first financing by OPG Trust – Fall 2017; regulations and commercial contracts to be drafted/negotiated before first financing
  - July 1 – Implementation of expanded electricity support programs (OESP, RRRP FNORDC, ICI).

TBS Work streams

- Member of Rate Mitigation Implementation Group
- Preparation of analyst note for May 1 Treasury Board meeting
  - Draft minute from March 1 submission included in Appendix A
- Review of draft legislation – GA refinancing and social programs
- Review of financial model – GA refinancing
- Accounting analysis – GA refinancing -- coordination of opinions from OPG and IESO and overall analysis; Affordability Fund – accounting analysis and coordination with Hydro One

Rate Mitigation Implementation Group (RMI)

TBS

- The Rate Mitigation Implementation Working Group was created in mid-March with representatives from Energy, TBS, MOF, OPG, IESO, and the OEB, as well as external legal advisors.
- The implementation group meets weekly in order to discuss status on key outstanding issues, including considerations relevant to drafting of the legislation for Global Adjustment Refinancing.
- RMI participants also actively participate in broader discussions involving both internal and external advisors on key aspects of the GA legislation, including identification of potential creditor, legal and accounting risks.
- If passed, the legislation would enable IESO and OPG to work together to refinance the GA over a longer period of time. The legislation would also outline the role for the OEB, as it relates to the financing proposal.
- Note that the March 1st draft TB minute directs the Ministry to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment.

GA Refinancing

TBS

- Process to review draft legislation
  - OPCD involved in review of draft framework document as of April 4th
  - Accounting teams from IESO and OPG as well as their advisors also reviewing drafts as well as OEB and OFA
  - Advisors:
    - Province – Blakes, TD, EY
    - OPG – Torys, Hunton (US), Goldman Sachs, CIBC, EY
    - IESO – Stikemans, KPMG
    - Dealers – Oslers
  - First draft of legislation received April 15
  - Outstanding issues -- see next slide
  - Accounting opinions from IESO and OPG – tracking to May 1; will be based on the same draft legislation and common assumptions
  - OPCD working with accounting teams from IESO, OPG, OFA to identify and resolve issues

EY may only give a formal opinion in early May because there is too much confidentiality at that point. Richely thinks they'll only give a letter. She's going to talk to OPG's CFO.

GA Refinancing – Outstanding issues (draft as of April 16, 2017)

TBS

- Overall
  - Terms of provincial guarantee
  - Interest recovery by OPG Trust during first 5 years
- OPG
  - Fair allocation plan – impact on role in financing shortfall
  - Variability in returns – accounting analysis
- IESO
  - Restrictions on recovering funding shortfall if amount cannot be financed by external investors
  - Role in collections cycle

GA Draft Legislation

Building blocks

- Fair Allocation Plan (FAP)
  - Plan to allocate costs and benefits from investments in decarbonizing and modernizing the generation of electrical energy fairly among present and future consumers
  - Prepared by Minister of Energy, subject to amendment
  - FAP should not extend beyond 2047
  - FAP cannot impact debt already issued to finance shortfall or repayment thereof

- Financing Plan
  - Created by OPG, may be amended at any time
  - Plan as to how deferred amounts will be financed and repaid
  - To be consistent with FAP

GA Draft Legislation

TBS

Building blocks (cont'd)

- Regulatory Asset
  - Right to recover from rate payers, through collection by LDCs and IESO, the regulatory charge, late fees, and interest established by legislation
  - Legislation will create property rights and allow for security interests in the Regulatory Asset
  - OEB approval re: right to recover shortfall

Electricity Support Programs

TBS

- As part of the suite of electricity price mitigation initiatives, TB/MBC on March 1, 2017 approved the enhancement of a number of electricity support programs, including shifting the costs of these programs from the rate-base to government funding.

- These programs include:
  - Affordability Fund
  - Ontario Electricity Support Program (OESP)
  - Rural or Remote Electricity Rate Protection (RRRP) Program
  - First Nations On-Reserve Delivery Credit (FNORDC)

- Through the 2017-18 PRRT, multi-year funding for these programs, based on refined forecasts, were built into the Ministry of Energy's allocation (Appendix B provides details).

- The following slides provide an update on the implementation of these programs.

Electricity Support Programs – Affordability Fund

TBS

- As part of the March 1 approval, TB/MBC approved a commitment of up to $200M on a multi-year basis towards the Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.
- On March 6, TB/MBC approved $100M in 2016-17 to establish the fund, which the Ministry of Energy transferred to a limited purpose Trust (the Affordability Fund) on March 30, 2017.
- Recommendations on beneficiaries will be made by Electricity Distributors based on principles established in the Trust Declaration and decisions on distributions will be made by the Board of Trustees.
- In order to provide funding to the Trust, the Ministry of Energy entered into a Transfer Payment Agreement (TPA) with the Interim Trustee of the Trust (Computershare). It is expected that by May 31st, Computershare will be replaced by an independent Board of Trustees which will be appointed based on the advice of an independent Advisory Committee.
- Preliminary accounting analysis of the Trust concludes that the entity is not controlled by either the Province or Hydro One which is engaged to provide administrative services to the Trust under an Administrative Services Agreement. Hydro One is currently undertaking a more detailed accounting analysis under IFRS.

Electricity Support Programs – Affordability Fund

- No legislative changes are required to create this program.
- The Ministry is planning to report back to TB/MBC in June 2017 with final program details and a performance management framework, including outcome measures and targets.
- The Ministry expects LDC can begin to apply the Trust for funding beginning in Summer 2017.
- The Ministry has also been directed to report back to TB/MBC through the 2018-19 PRRT with a value for money assessment, including spending to date and results and outcomes achieved.

Electricity Support Programs – Ontario Electricity Support Program

TBS

- As part of the March 1 approval, TB/MBC approved expanding the benefit level of OESP by 50%, moving the program from a ratepayer funded program to a government funded program, and pursuing additional measures to substantially increase take up.

- On April 10, LRC / Cabinet approved regulatory amendments under the Ontario Energy Board Act, 1998. These amendments included:
  - Increasing funding by 50% for existing OESP consumers;
  - Add new classes of OESP-eligible consumers; and
  - Ensure the IESO continues to fund the program through its OESP variance account (estimated at $100M)

- The Ministry has also begun work with the Behavioural Insights Unit, Centre of Excellence for Evidence-Based Decision Making, to accelerate / maximize program uptake.

Electricity Support Programs – Ontario Electricity Support Program

- Next Steps:
  - May 1, 2017 – TB/MBC & LRC – proposed legislation to shift the funding of this program from rate-payer to government funding.
  - Spring 2017 – further regulatory amendments on program design / eligibility criteria and report back to TB/MBC with final program details, including performance metrics.

Electricity Support Programs – RRRP

- As part of the March 1 approval, TB/MBC approved broadening the RRRP program to mitigate distribution charges for customers of LDC with some of the highest distribution rates and moving the program from a ratepayer funded program to a government funded program beginning in 2017.

- The Ministry is currently working on the program details and has convened a LDC working group in late March.

- Next Steps:
  - May 1, 2017 – TB/MBC & LRC – proposed legislation to shift the funding of this program from rate-payer to government funding.
  - Spring 2017 – regulatory amendments on program design / eligibility criteria and report back to TB/MBC with final program details, including performance measurement framework.

Electricity Support Programs – FNORDC

TBS

- As part of the March 1 approval, TB/MBC approved the establishment of a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve.

- The Ministry is currently working on the program details, including working with the Chiefs of Ontario.

- Next Steps:
  - May 1, 2017 – TB/MBC & LRC – proposed legislation to create the FNORDC
  - Spring 2017 – regulatory amendments on program design / eligibility criteria and report back to TB/MBC with final program details, including performance measurement framework.

Electricity Support Programs – Other Initiatives

TBS

Additional initiatives supporting electricity price mitigation:

- **Expanding Industrial Conservation Initiative (ICI)**
  - Lowering ICI eligibility threshold to 500 kW for consumers in targeted sectors, such as manufacturing. Program to remain funded through the rate-base.
  - Reg amendments were approved by LRC / Cabinet on April 10, 2017.
  - Implementation set for May 2017; eligible consumers can opt in to the ICI by June 15 so that they can be considered as Class A consumers in the annual billing period starting on July 1.
- **Additional Initiatives** for **Small Business and Industrials** (ENERGY, MEDG, MOF, MOECC, MOL, Small Business)
  - Identify additional opportunities to assist Class B electricity consumers and small and medium sized manufacturers
  - Report back to TBC/MBC and Cabinet in fall 2017
- **Initiatives for Tenants** (ENERGY, MOH)
  - Explore ways to provide direct assistance to tenants that are not sub-metered and do not directly benefit under the existing and proposed rate mitigation programs
  - Report back to TBC/MBC and Cabinet in fall 2017

APPENDIX A: PROPOSED MINUTE (DRAFT) – MARCH 1, 2017 TB MEETING

TBS

Should TB/MBC wish to proceed with the Ministry's request, the following minute could be considered:

Approve electricity rate mitigation actions that support up to a 25% electricity bill reduction (including the 8% reduction announced in 2016) for an average household in 2017.

In this regard, the Board:

i. Direct the Ministry of Energy to implement electricity rate mitigation for all electricity consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor by:

a) Subject to completed legal, accounting and financing risk assessments, refinance the Global Adjustment (GA) in order to partially defer RPP-eligible ratepayer GA costs by reducing projected after-tax electricity costs for a typical residential customer consuming 750kWh per month in 2017 by about 16%. Total projected bill increases will be kept in line with CPI until the end of 2021. From 2022 onwards, bills will increase at a rate that ensures gradual recovery of the accumulated debt by 2048, with escalation in subsequent years set above Consumer Price Index (CPI) in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

b) Direct the Ministry to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment , including, but not limited to:

- Formal accounting opinions from OPG and IESO auditors.
- Completed legal, financing and accounting risk assessments. Assessments to include, but not limited to proposed legislation, technical aspects such as Eurig analysis, and risk to borrowing (in discussion with the OFA).
- Report on the multi-year profile of GA smoothing, identifying specific assumptions.
- Report on sensitivity analysis completed as assumptions vary, such as under different recovery rates and periods.
- Overall risk mitigation plan addressing completed legal, accounting and financing risk assessments.

c) If a non-fiscal mechanism cannot be established:

- Direct the Ministry to report back to Cabinet and TB/MBC with options for achieving a comparable level of electricity rate mitigation in the most cost effective way, in order to minimize the impact on the province's fiscal plan.
- Note costs to government of proceeding if cost of refinancing of Global Adjustment is recognized as an expense in the fiscal plan of up to $2,534,000,000 in 2017-18, $2,668,000,000 in 2018-19, $2,942,000,000 in 2019-20, $3,420,000,000 in 2020-21 and $3,232,000,000 in 2021-22.

Appendix A: March 1, 2017 TB/MBC Minute (Slide 2 of 3)

TBS

ii) Broadening the Rural or Remote Rate Protection (RRRP) program to mitigate distribution charges for customers of Local Distribution Companies (LDC) with some of the highest distribution rates, and moving the program from a ratepayer funded program to a government funded program beginning in 2017, including:

a) Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the lowest distribution rate paid by the average consumer of the LDCs noted by fall 2017.

b) Note costs estimated at up to $459,000,000 in 2017-18, $472,000,000 in 2018-19, $484,000,000 in 2019-20, and $497,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to broaden RRRP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the broadened program now government funded
- Report on and assessment of impacts of consolidation of LDCs
- Assessment of distribution rates and implications for the program

iii) Expanding every benefit level of the Ontario Electricity Support Program by 50%, moving the program from a ratepayer funded program to a government funded program beginning in 2017 and pursuing additional measures to substantially increase take-up.

a) Note costs estimated at up to $186,000,000 in 2017-18, $261,000,000 in 2018-19, $325,000,000 in 2019-20, and $375,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

b) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

c) Direct the Ministry to work Treasury Board Secretariat (Behavioural Insights Unit, Centre of Excellence for Evidence-Based Decision Making) to accelerate/ maximize program uptake.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to expand OESP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Identify eligibility criteria, and refinements being made.
- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the expanded program now government funded.

Appendix A: March 1, 2017 TB/MBC Minute (Slide 3 of 3)

TBS

iv) Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.

a) Approve to commit up to $200,000,000 on a multi-year basis to support the Affordability Fund.

b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

v) Establishing a new province-wide government funded program beginning in 2017 that would eliminate the delivery charge for First Nations customers on reserve.

a) Note costs estimated at up to $20,000,000 in 2017-18, $20,000,000 in 2018-19, $20,000,000 in 2019-20, and $20,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

b) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant Ontario Energy Board estimate of program costs, from $13M to $20M.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

vi) Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500kW to enhance competitiveness for Class B manufacturers beginning July 2017.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, results achieved to date versus expectations for the ICI program, impacts of the change for participation, and impact for ratepayers as costs are recovered from ratepayers.

vii) Direct the Ministry:

a) To work with Treasury Board Secretariat and the Ministry of Finance on the development of a comprehensive risk-based costing, including forecast models and sensitivity tests on assumptions and financial estimates, for the electricity mitigation initiatives.

b) To report back to TB/MBC through regular updates including quarterly reports and the 2018-19 Program Review, Renewal and Transformation (PRRT) on the status of implementation, and revised out-year expenditure requirements if applicable.

c) To continue to work with the Ontario Energy Board, the Independent Electricity System Operator and Ontario Power Generation, through the Long-Term Energy Plan 2017, to further reduce electricity rates across the system.

d) To work with the Ministry of Finance, Treasury Board Secretariat, Cabinet Office and Office of the Premier on an integrated communications strategy.

Appendix B: Multi-Year Funding Profile for Social Programs Providing Electricity Price Mitigation

TBS

- The following tables provides the current multi-year funding profile for social programs providing electricity price mitigation

($ million)	2016-17	2017-18	2018-19	2019-20	2020-21
Ontario Rebate for Electricity Consumers (OREC) (Revised Forecast for OFHP)	300	939	882	882	895
Ontario Fair Hydro Plan (OFHP):					
Affordability Fund	100				
Expanding and Enhancing OESP		344	261	325	375
Broadening RRRP		140	472	484	497
Providing First Nations On-Reserve Delivery Credit		15	20	20	20
OFHP Total	100	499	753	829	892
TOTAL	400	1438	1635	1711	1787

From:	Ken Kandeepan
To:	Mike Manning; James Devine; Carlos Yep; John Kim; Bruno Amara
Cc:	John Psinas
Subject:	TDS.docx
Date:	Thursday, April 20, 2017 4:33:22 PM
Attachments:	TDS.docx

Hi all

As promised, John and I have tried to keep it as short as possible, feel free to edit.

Thanks

Ken k

Options for Equity Injection from TD Securities

When developing options for structuring the equity injection from the Province to OPG amounting to 44% of the debt incurred by the OPG Trust set up to purchase the regulatory asset from IESO the following underlying principles need to be addressed.

- The equity injection will be provided on a monthly/quarterly basis to OPG by the Province.
- The equity injection results in the Province, the sole shareholder of OPG receiving shares from OPG whose valuation is based on a determined and agreed upon methodology.
- This methodology can be as simple as book value or can be based on some kind of a DCF.
- Given the time limited nature of the equity injection the Province anticipates repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some kind of optionality to be exercised by the Province as and when repayment is required. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, given the potentiality of a new government's different policies subsequent to future elections.
    - OPG can issue preference shares again with some kind of optionality for repayment. Preference shares, especially those with a specified annual dividend will ensure that the Province remains whole in terms of the incremental interest costs it incurs on the equity injection.
- Other factors to be considered for repayment:
    - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
    - Should the senior debt be repaid first or should repayment be on a pari-passu basis
    - OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.

From: John Kim
To: Bruno Amara; Salman Qadir; Adam Prokop
Cc: Francisco Chinchon; Gavin He
Subject: TDS_v1.docx
Date: Friday, April 21, 2017 9:07:06 AM
Attachments: TDS_v1.docx

Comments welcome but in the next 30 min pls.

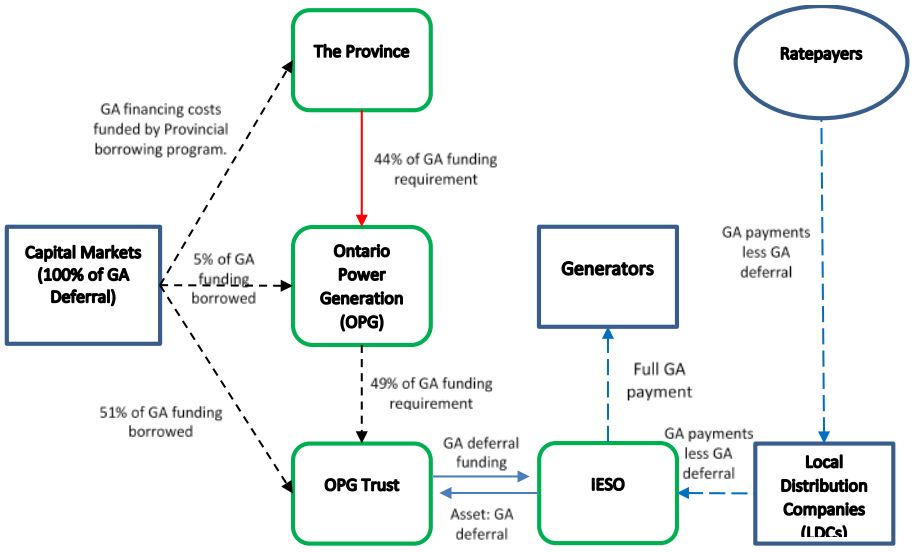
GA FINANCING – TD'S ADVICE SOUGHT ON EQUITY INJECTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide equity injection to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

Context

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets

(5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the equity injection from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the money provided to OPG as 'equity injection' for the purpose of the GA deferral proposal.
- Under the current state of discussion, t~~T~~he equity injection will be provided on a monthly/quarterly basis to OPG by the Province.
- The equity injection results in the Province, the sole shareholder of OPG receiving shares from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cashflow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the equity injection the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.
    - ~~OPG c~~Could~~an~~ the structure involve issuing~~e~~ ~~preference~~ preferred shares ~~again~~ with some ~~kind~~ form of optionality for repayment. Preferred~~ence~~ shares, especially those with a specified annual dividend schedule could potentially~~will~~ ensure that the Province remain~~s~~ whole in terms of the incremental interest costs it would incur~~s~~ on the equity injection.
- Other factors to be considered for repayment:
    - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
    - Should the senior debt be repaid first or should repayment be on a pari-passu basis

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Commented [JK1]: I suggest we delete this and have TD opine on options.

Commented [JK2]: Not sure if this is needed here.

- OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
- Eventually, the Province would need to have a discussion with OPG on the path forward.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in getting the money back, as stipulated in the GA deferral plan.
- For regulatory purposes, there may be an interest in insuring that the equity injection is considered a true equity in OPG's capital structure [TBD but still require consideration].
- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].

From: John Kim
To: Carlos Yep
Subject: TDS_v1_SIFB_markup.docx
Date: Friday, April 21, 2017 9:58:41 AM
Attachments: TDS_v1_SIFB_markup.docx

Hi Carlos….working draft. Thanks. I made it CMD's request for various reasons.

John

GA FINANCING – TD'S ADVICE SOUGHT ON EQUITY INJECTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide capital ~~equity injection~~ to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

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Context

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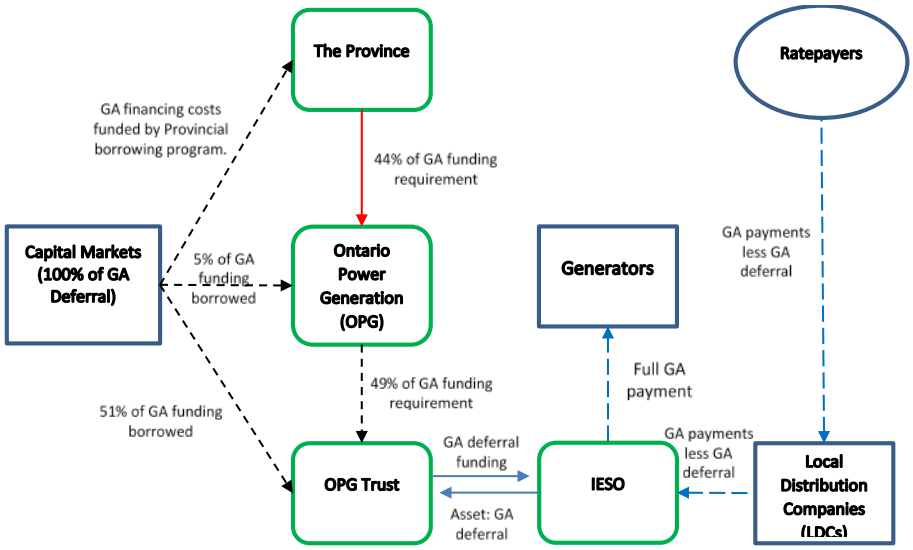
The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its capital

contributions ~~equity injection~~ through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the capital contributions ~~equity injection~~ from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the capital ~~money~~ provided to OPG no matter if this is done as common equity or through other mechanisms, including the potential used of preferred shares.~~as 'equity injection' for the purpose of the GA deferral proposal~~.
- Under the current state of discussion, t~~T~~he capital contribution ~~equity injection~~ w~~ould~~~~ill~~ be provided on a monthly/quarterly basis to OPG by the Province.
- The capital contribution ~~equity injection~~ results in the Province, the sole shareholder of OPG receiving common shares, or another type of security, from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cashflow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the capital contribution ~~equity injection~~ the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder, as well as having vested legislative authority, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.
    - ~~OPG c~~Could~~an~~ the structure involve issuing~~e~~ ~~preference~~ preferred shares ~~again~~ with some ~~kind~~ form of optionality for repayment. Preferred~~ence~~ shares, especially those with a specified annual dividend schedule could potentially~~will~~ ensure that the Province remain~~s~~ whole in terms of the incremental interest costs it would incur~~s~~ on the ~~equity injection~~capital contribution.
- Other factors to be considered for repayment:

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Commented [JK1]: I suggest we delete this and have TD opine on options.

- Should the senior and subordinated debt be ranked as the same and if so does this impact market access
- Should the senior debt be repaid first or should repayment be on a pari-passu basis
- OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
- Eventually, the Province would need to have a discussion with OPG on the path forward.

Commented [JK2]: Not sure if this is needed here.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in being able to recover its capital ~~getting the money back,~~ as stipulated in the GA deferral plan.
- The Province needs to be kept whole with respect to any financial cost that may arise from making and carrying forward the capital contributions.
- For regulatory purposes, there may be an interest in insuring that the capital contributions ~~equity injection is~~are considered a true equity in OPG's capital structure [TBD but still require consideration].
- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].

From: Ronald Kwan
To: John Kim; Francisco Chinchon
Subject: TDS_v2p
Date: Friday, April 21, 2017 11:36:53 AM
Attachments: TDS_v2p.docx
ATT00001.txt

Hi,

I made a few edits.

That said, as sole shareholder, the risk of equity in OPG is a general one, not specific to the equity for the SPV, so I'm not sure why this is being pursued, unless the concern is providing for if the Province is at some point not the sole shareholder. Is that the sub-text?

Ron

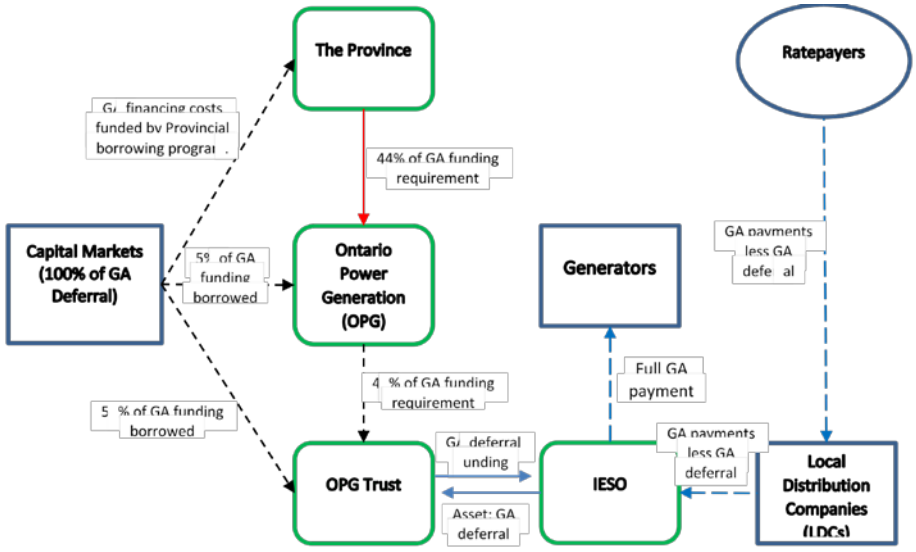
GA FINANCING – TD'S ADVICE SOUGHT ON CAPITAL CONTRIBUTION MECHANISM

The Capital Markets Division of the Ontario Financing Authority require TD advisors' recommendations and detailed descriptions of options vis-à-vis the proposal to provide capital ~~equity injection~~ to the Global Adjustment (GA) deferral proposal as part of the larger Ontario's Fair Hydro Plan, as announced on March 2, 2017.

Context

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses recovery deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers versus the cost of full payment to~~in order to fully compensate~~ generators.



OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its capital

contributions ~~equity injection~~ through its annual borrowing program - from issuing debt into the capital markets.

Options for Equity Injection from TD Securities

The advice sought from TD could be summarized as follows:

When developing options for structuring the capital contributions ~~equity injection~~ from the Province to OPG for the~~amounting to~~ 44% of the ~~debt incurred~~financing requirement ~~-~~by the OPG Trust ~~set up~~ to purchase the regulatory asset from IESO, a number of ~~the following~~ underlying principles need to be addressed.

- While the Province is a sole shareholder of OPG, advice is sought to address potentially higher degrees of complexity of shareholder structure.
    - For example, options should include options for mechanism to create a level of certainty for recovering the capital ~~money~~ provided to OPG ~~no matter if~~whether this is done as common equity or through other mechanisms, including the potential use~~d~~ of preferred shares.~~as 'equity injection' for the purpose of the GA deferral proposal.~~
- Under the current state of discussion, t~~T~~he capital contribution ~~equity injection~~ would~~ill~~ be provided on a monthly/quarterly basis to OPG by the Province.
- The capital contribution ~~equity injection~~ results in the Province, the sole shareholder of OPG receiving common shares, or another type of security, from OPG whose valuation is based on a determined and agreed upon methodology. The Province will require an internal discussion before proceeding with a dialogue with OPG on the details.
- This methodology can be as simple as book value or can be based on some ~~kind~~ form of a discounted cash flow (DCF) mechanism but TD's expertise in structuring deals is sought in this request [keeping in mind the first bullet above].
- Given the time limited nature of the capital contribution ~~equity injection~~ the Province would anticipate~~s~~ repayment at a future date.
- The potential for repayment can be implemented as follows:
    - The Province as the sole shareholder~~, as well as having vested legislative authority~~, can require OPG to issue dividends annually.
- The shares issues by OPG can include some ~~kind~~ form of optionality to be exercised by the Province as and when repayment is ~~required~~due under the GA deferral plan. The nature of the repayment should be flexible enough to request payment at a much earlier date than anticipated, ~~given the potentiality of a new government's different policies subsequent to future elections~~with any number of possible causes, e.g. changes in government policy.

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- Other factors to be considered for repayment:
  - Should the senior and subordinated debt be ranked as the same and if so does this impact market access
  - Should the senior debt be repaid first or should repayment be on a pari-passu basis
  - OPG may have concerns about their own credit rating if the number of shares issued to the Province substantially dilutes key ratios.
  - Eventually, the Province would need to have a discussion with OPG on the path forward.

Summarizing Issues to Work Around [Pls. Add More CMD and FTD]

- The Province will need to consider various levels of options for certainty in being able to recover its capital ~~getting the money back,~~ as stipulated in the GA deferral plan.
- The Province needs to be kept whole with respect to any financial cost that may arise from making and carrying forward the capital contributions.
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- The plan require that OPG operates on a commercial basis for the SPV with its Board needing to make independent decisions[, thus the need to have a discussion].

Commented [2]:
Not sure if this is needed here.

From: John Kim
To: Bruno Amara
Subject: This is the latest, I think...
Date: Thursday, April 06, 2017 6:46:04 PM
Attachments: 2017-03-01 - Cabinet Submission - Electricity Price Mitigation.pdf

Ontario

Electricity Price Mitigation

Ministry of Energy

March 1, 2017

Minister

Deputy Minister

Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., $35 billion+ investment in cleaner generation and $15.5 billion investment in transmission and local distribution systems).

- Ontario has taken a number of actions to lower electricity costs for all consumers by:
  - Deferring investments in generation (e.g., new build nuclear), improving market efficiency (e.g., wind dispatch) and decreasing the cost of renewable procurements (e.g., Green Energy Investment Agreement (GEIA) renegotiation, decreasing Feed-In Tariff (FIT) prices, competitive Large Renewable Procurement (LRP)).
  - Increasing cost effectiveness and improving efficiency by adopting new electricity market approaches (e.g., no new NUG contracting and demand response).

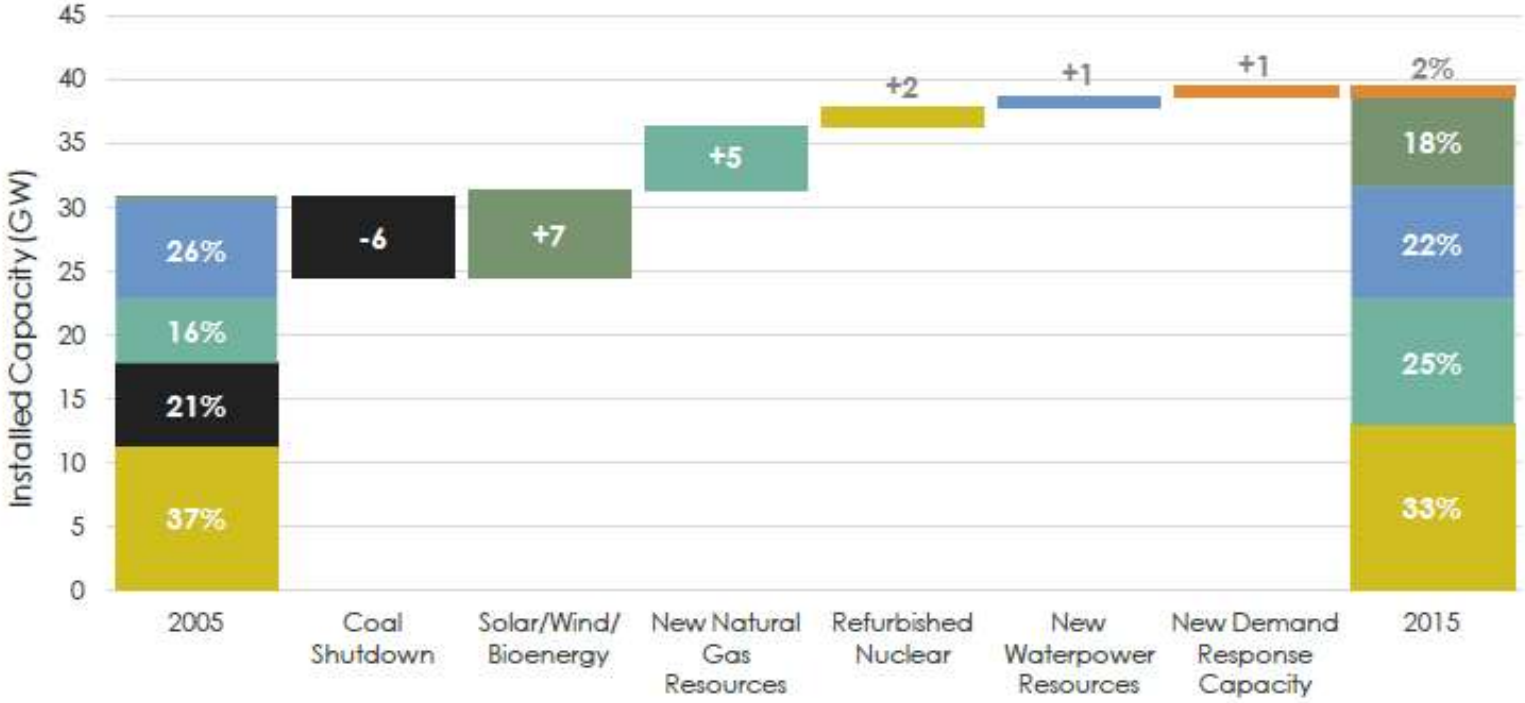
- On November 28, 2016, the Minister of Energy announced the need for changes in how electricity resources are procured, the need for wholesale market renewal and greater electricity consumer choice.

- The Ministry of Energy is currently updating its Long-Term Energy Plan (LTEP), which provides an opportunity to consider a range of policy changes to how the Ontario energy sector operates.

- On a number of occasions the Premier has indicated publicly that further relief on electricity prices will be provided to consumers in the near term.

Context – Infrastructure Investments

- In the eleven year period between 2005 and 2015, government added new electrical capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



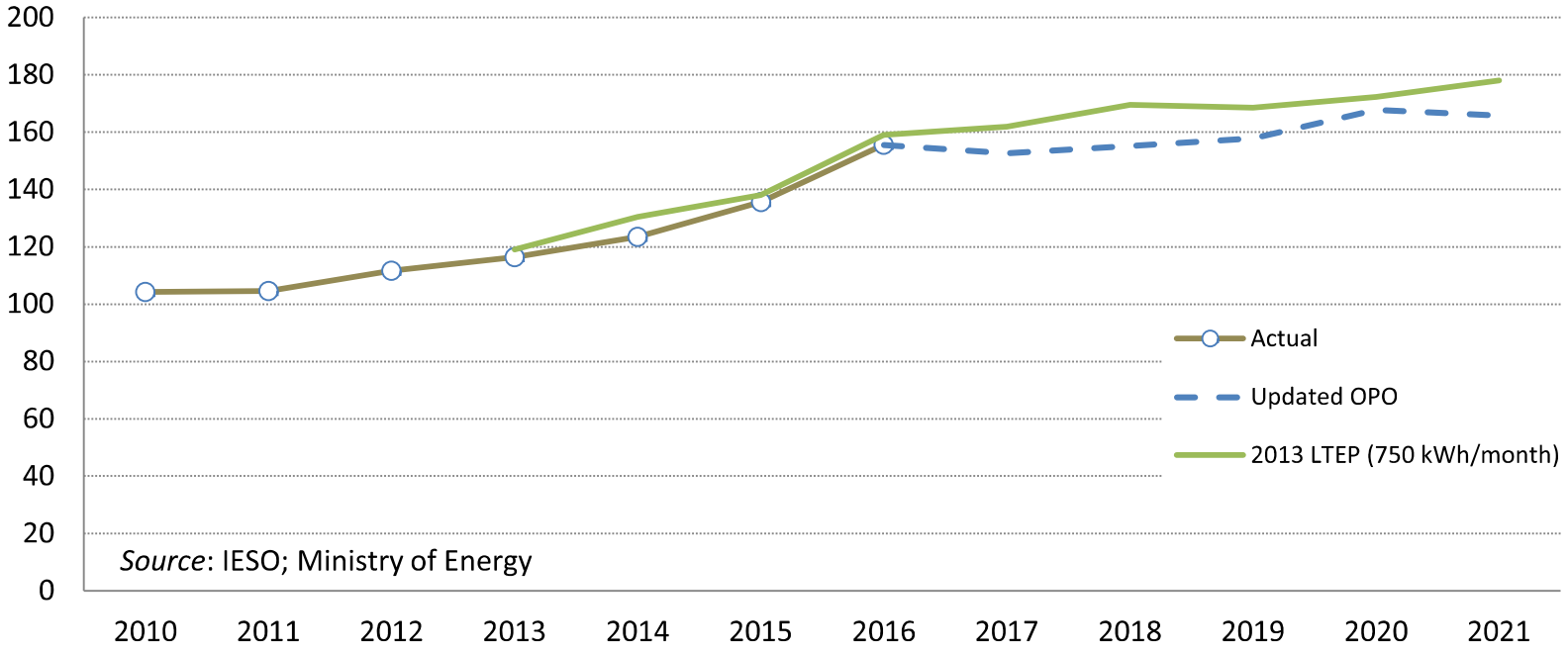
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in $/month



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Context – Recent and Existing Government Funded Electricity Cost Mitigations

($Millions)	14-15	15-16	16-17[1]	17-18[1]	18-19[1]	19-20[1]	20-21[1]	Who Benefits
Ontario Clean Energy Benefit (OCEB) [2]	1,078	860	***OCEB ended on December 31, 2015***					• Residential customers, farms, small business (i.e., 10% off, on up to 3,000 kWh/month)
Ontario Rebate for Electricity Consumers (OREC or 8% rebate)*	-	-	300	1,100	1,200	1,200	1,200	• Residential customers, farms, small business (i.e., amount equal to the 8% Provincial portion of HST)
Ending Debt Retirement Charge (DRC) for Residential[3]	-	85	330	330	--	--	--	• Residential customers (i.e., saves about $70 per year for a typical residential consumer)
Northern Ontario Energy Credit (NOEC) [4]	24	26	25	25	25	25	25	• For eligible northern Ontario residents (i.e., for 2017, single people can receive up to $148,and families up to $227, depending on adjusted family income)
Ontario Energy and Property Tax Credit (OEPTC) (Energy component only)[4]	429	444	450	460	470	481	481	• For eligible low-to moderate-income individuals and families, & qualifying seniors (i.e., for 2017, up to $227, depending on adjusted family income)
Northern Industrial Electricity Rate Program (NIERP)	108	120	120	120	120	120	120	• Qualifying northern Ontario large industrial electricity consumers (i.e., rebate of 2cents/kilowatt-hour)
TOTAL	**1,639**	**1,535**	**1,225**	**2,035**	**1,815**	**1,826**	**1,826**	

Notes:

1. 2016-17 to 2020-21 based on forecasted numbers
2. OCEB ended December 31, 2015
3. 2015-16 estimated for 3 months of reduced DRC revenue. Estimated impact up to March 31, 2018.
4. Part of the Ontario Trillium Benefit. While related to energy generally, key policy driver for OEPTC when introduced in 2010 was electricity, as prices were forecast to rise, while fossil fuel prices, particularly natural gas, were low and falling.

* Sourced from Energy PRRT submission

Source: Ministry of Finance

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Context – Recent Actions Taken To Mitigate Electricity Rates

- Following the 2016 Throne Speech, the several actions were announced to further reduce electricity costs.

1. As of January 1, 2017, Ontario is rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%.

2. Expanded support available to eligible rural ratepayers by updating Rural or Remote Rate Protection (RRRP) with additional relief, decreasing total electricity bills by an average of $45 each month when combined with the 8% rebate.

3. Expanding the Industrial Conservation Initiative (ICI) – up to one-third savings for participants.

4. Suspending the LRP II and the Energy from Waste Standard Offer Program (EFWSOP) – up to $3.8 billion in cost savings.

5. Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – an average annual savings of $15 million.

Rate Mitigation Proposal

- The following approaches are proposed:

1) Smoothing the global adjustment (GA) to provide significant and immediate rate relief through cost deferral of the GA:
   - Smoothing Mechanism (i.e., 25% reduction); and
   - Implementation Model.

2) Enhancing competitiveness for Class B electricity consumers (i.e. manufacturing) by lowering the eligibility threshold for Industrial Conservation Initiative (ICI).

3) Helping vulnerable electricity consumers by enhancing electricity support and conservation programs and shifting cost onto the tax-base:
   - Rural or Remote Electricity Rate Protection (RRRP) Enhancement (Delivery Charge Relief);
   - Ontario Electricity Support Program (OESP) Expansion;
   - New Affordability Fund; and
   - On-Reserve First Nations Delivery Credit.

4) Ongoing activities to bend the future cost curve of electricity:
   - Ontario Energy Board (OEB) – Identify opportunities for future LDC efficiencies and rates;
   - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

GLOBAL ADJUSTMENT (GA) SMOOTHING

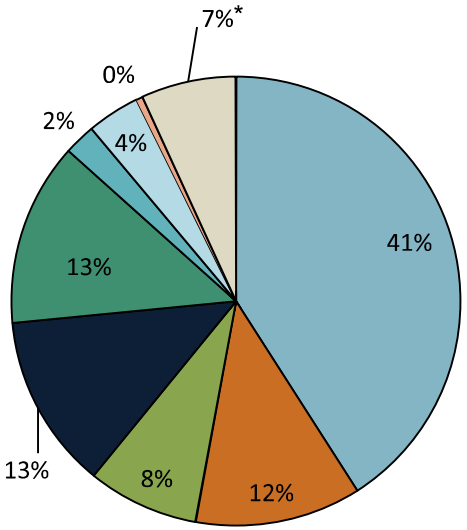
Overview – GA Smoothing

- The Global Adjustment (GA) has risen over the past decade as the province's electricity system has decarbonized.
  - The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing, and fixed operations costs. The GA recovers these fixed costs of running the province's generation fleet, as well as the cost of conservation programs.
- The majority of the province's electricity generators are under 20-year contracts and account for less than half of the GA. Some of these generators will continue to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years).
  - There is an opportunity to recognize the long-term benefit of these assets to the electricity system and "bring forward" that benefit for ratepayers today by deferring some of the current costs.
  - GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief (i.e., similar to re-financing a mortgage). By recognizing that generation assets are expected to continue to provide residual benefit to future ratepayers, beyond the term of current contracts, future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets.
- The GA Smoothing option under consideration is illustrative and show potential rate mitigation measures to meet a targeted 25% reduction from the projected residential bill in 2017.
  - These residential impacts are based on a forecast for a household connected to Toronto Hydro that consumes 750 kWh per month.
  - Actual ratepayer savings would vary due to differences in consumption patterns.
  - Targeted to Regulated Price Plan (RPP) -eligible;
  - Rate increases would be capped at Consumer Price Index (CPI) for the first four years. Subsequent years would be set above CPI in order to ensure that bill increases due to repayments are capped at around 10% of the total bill.

GA Smoothing – Cost Breakout

- The Global Adjustment (GA) accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available.
  - Generators in Ontario received contracted or regulated rates, which are typically designed to recover capital, financing and fixed operations costs. Most generators are on 20-year contracts with the exception of hydroelectric and nuclear plants. They operate on longer contracts (or are regulated on a cost-of-service basis by the OEB) in recognition of the much longer operating lives of these facilities.
- Chart below shows the breakout of the GA by generator and program types. In 2016, the GA costs were $12.3 billion. These costs will evolve over time as 2,181 MW of previously contracted generation comes online in the coming years.

2016 GA Cost: $12.3 billion



	GA ($M)
Nuclear	5,053
Hydro	1,473
Natural Gas	985
Wind	1,552
Solar	1,630
Biomass, Landfill and Byproduct	278
Conservation	467
IEI Program	60
OEFC*	842

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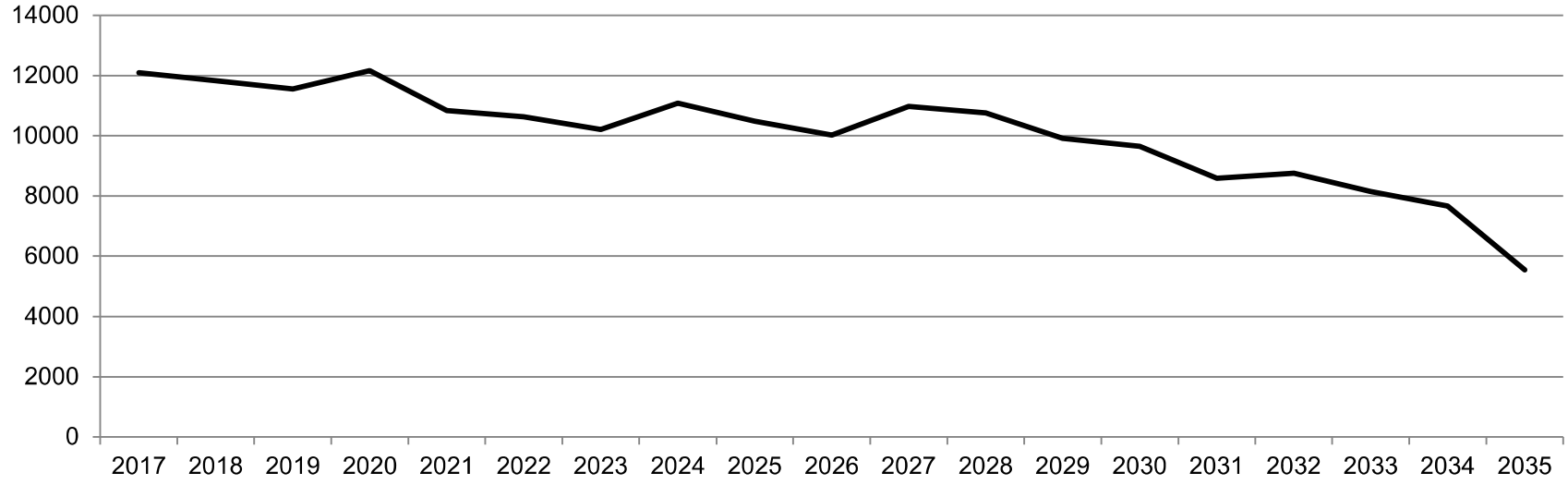
***Note:** OEFC indicates the cost of generator contracts managed by the OEFC which include contracts for natural gas, hydro and biomass generators**.**
**** Note:** Conservation measures, not quantified here, serve to reduce Ontario energy demand. Actual electricity generation would be larger than 155 TWh in the absence of conservation programs.

GA Smoothing – Global Adjustment Forecast

- The amount of Global Adjustment (GA) is forecast to decrease through the forecast period. Several factors contribute to the decline of GA, including:
  - Expiry of electricity generation contracts;
  - Cost of existing contracts reduced due to Inflation; and
  - Higher wholesale electricity prices due to higher natural gas/carbon prices, higher demand and reduced nuclear generating capacity.

Forecast Global Adjustment Cost (nominal $ million)



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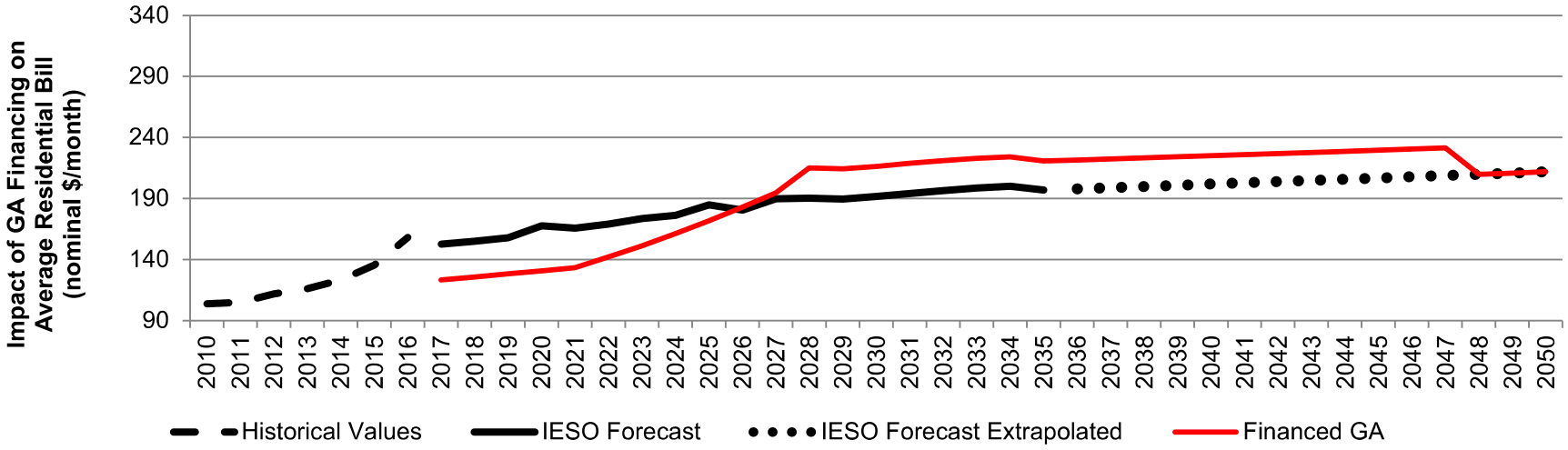
GA Smoothing – Expected Life of Electricity Generating Assets

- Gas, wind and solar generators are typically contracted for a 20-year period (e.g., with the Ontario Electricity System Operator (IESO), etc).
  - Nuclear and hydroelectric generators are contracted for a much longer period or regulated by the Ontario Energy Board (OEB) on a cost-of-service basis.
- While it is likely that gas, wind and solar generators will be able to operate beyond their current contracts, IESO advises that generators will need to decide what level of capital investment is appropriate for ongoing operations (i.e., by replacing and/or refurbishing major facility components).
  - In IESO's 2016 Ontario Planning Outlook (OPO), it was assumed that the service lives of generators could be extended beyond their contract term based on additional investments and ongoing costs. **Note:** This was not an assessment of the cost/benefits or a prediction of what the generators would actually do at the end of their contracts.
- The table below outlines IESO's current estimates for service lives of gas, wind and solar facilities. The ongoing service lives of these facilities depend on: initial facility design & build, operating activities (e.g., hours of operation, etc.) and level of facility maintenance (i.e., ongoing component repair and replacement).

Technology	Contract Life (yrs)	Expected Life (yrs)	Expected Cost Post-Contract Life
Gas	20	Up to 30	Life varies with initial design, how it is operated and maintained.
Wind	20	Up to 30	Older technologies may deteriorate faster. Elements such as foundations and electrical integration can last longer.
Solar	20	Up to 30	Performance deteriorates to about 80% by end of contract. Some facilities built in the initial contract periods may deteriorate more; however, technology is improving rapidly. Components need to replaced 5 to 30 years depending on design.

Source: IESO consultant reports (2014 and 2015)

A. GA Smoothing for RPP-Eligible Only (Borrow $2.5 billion in 2017, Residential Bills Lowered 25%, Lower Total Debt)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0
Total Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.1	7.9	11.4	14.6	17.8	20.8	23.2	25.6	26.7	27.7	26.8	26.0	25.1	24.1	23.1	22.0	20.9	19.7	18.5	17.2	15.9	14.4	12.9	11.3	9.7	7.9	6.1	4.2	2.1	0.0	0.0
Total Change in Accumulated Debt *($ billion)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.8	3.5	3.2	3.2	2.9	2.4	2.4	1.1	0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

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A. GA Smoothing for RPP-Eligible Only – Residential Bills Lowered 25% (with Tax-base Funded 8% Rebate and Social Programs, 2% increase)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

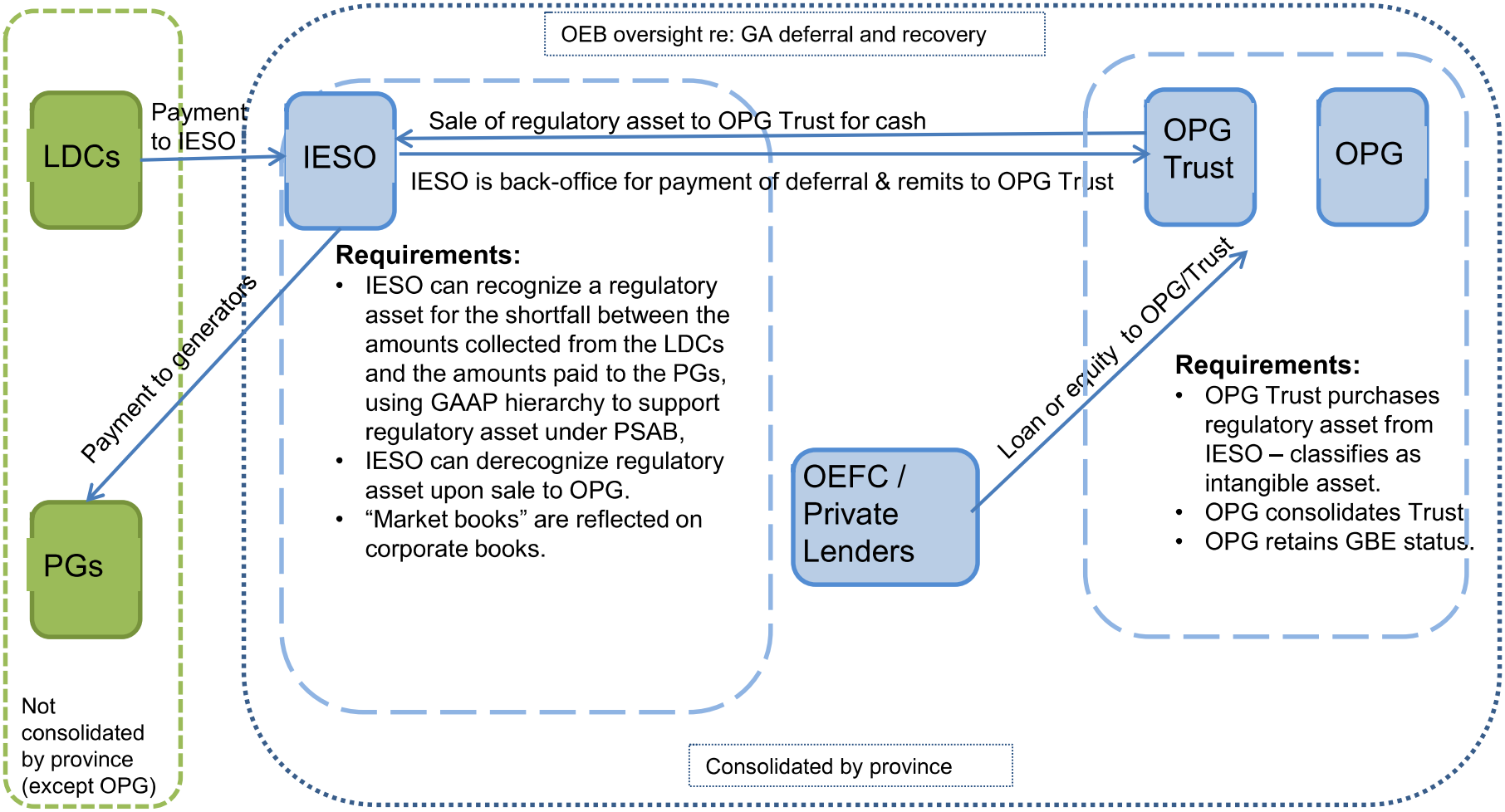
Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

B. GA Smoothing – Potential Structure

- The following diagram provides an overview of a potential GA smoothing structure, as well as interactions between sector entities and elements required to meet accounting objectives.



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Note: Proposed structure is subject to legal and accounting confirmation, absent that confirmation, there would be a fiscal impact to the province.

B. GA Smoothing – Accounting Considerations

- OPCD advises that analysis is not complete; several requirements (below) are high risk re: satisfactory resolution.
- Complexity of the structure and length of deferral/recovery increase risk and decrease transparency
- If all requirements can be met, an accounting analysis is expected to support: (1) increase in provincial borrowing (2) no increase in net debt, and (3) no impact on annual surplus/deficit, but depending on funding to OPG/Trust from Province, an increase in interest on debt and an increase in income from OPG will result.
- IESO requirements – IESO Finance, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
  - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs using GAAP hierarchy to support regulatory asset under PSAB
  - IESO can derecognize regulatory asset upon sale to OPG; and
  - "Market books" are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG Advisor), and OPCD are evaluating accounting risks:
  - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
  - OPG consolidates Trust; and
  - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.

B. GA Smoothing – IESO Considerations

- The Electricity Act enables the Independent Electricity System Operator (IESO) to recover from ratepayers the amounts paid to generators, distributors or other contracted entities.
- The accounting advice received by IESO is that reflecting market balances and regulated assets is a more appropriate presentation for its financial statements going forward.
- IESO is characterized as an "Other Government Organization" (OGO) and consolidated on a line-by-line basis into the Provincial books.

Issue	Response
1. Can IESO adopt regulatory accounting?	• Public sector accounting does not address regulated assets. • Guidance can be drawn from other accounting bodies. • US Federal Accounting Standards Advisory Board (FASB), US Governmental Accounting Standards Board (GASB) and International Accounting Standards Board (IASB) do provide guidance. • FASB accounting standard 980 and IASB have specific references that support the adoption of regulatory accounting. **Conclusion:** There is a hierarchy of accounting principles that support this approach.

B. GA Smoothing – IESO Considerations

Issue	Response
2. Can IESO recognize the GA deferral as a regulatory variance account?	Criteria for recognition are: • Rates are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers. • Rates are designed to recover the specific costs of regulated business-type activities. • In view of demand, it is reasonable to assume that rates will be set to recover the regulated business-type and can be collected from customers. **Conclusion:** Legislation creates the right to collection, currently and in the future. With either OEB or IESO board involvement a regulatory asset can be recognized.
3. Can IESO sell the variance account related to the deferral of the annual Global Adjustment account?	• The sale of the variance account to OPG Trust must be structured as an absolute assignment of future economic benefits of the Asset with no obligations, rights or benefits remaining of IESO. • In that case, this would represent a sale of the future right to collect these amounts from the ratepayer. **Conclusion:** Based upon proposed terms of the sale agreement, there would be no future economic benefit for IESO. Risk and rewards are entirely transferred to OPG Trust.

B. GA Smoothing – OPG Accounting Considerations

- OPG's Special Purpose Vehicle (SPV)/Trust is a stand-alone entity able to conduct business separately under a Trust agreement. **Note:** The conditions required for OPG to consolidate the SPV/Trust are outlined in the following table:

Issue	Response
1. Decision Making	• OPG must have decision making authority on the operation of the SPV/Trust (without a veto right by the Province), including naming of trustees, establishing operating plans and budgets, setting or changing financing policies. • The SPV/Trust while operating within the legislation, must be controlled by OPG to operate freely and to alter terms and conditions not specified in the legislation to ensure recovery of the deferred amounts.
2. Business Risk	• The SPV/Trust must have variability of returns as a normal business enterprise would, including such things as interest charged on deferred amounts, decisions on how to finance these deferred amounts, the ability to make / lose and keep any spread from financing.
3. Funding	• The Province cannot directly or indirectly fund more than 50% of SPV/Trust or any investment in the SPV/Trust. • OPG must own at least 50% of the most exposed equity /sub-debt in the SPV/Trust.
4. Directive	• Directive that is issued should not be prescriptive or direct OPG to set up this business. The directive should only be "guiding" i.e. to allow OPG to evaluate options and put forward to the OPG Board a recommended plan for Shareholder approval.

B. GA Smoothing – OPG Accounting Considerations (cont'd)

Issue	Response
5. Other required Attributes	• The legislation that supports the formation of the SPV/Trust must have the following attributes: – Must require interest, carrying and administrative costs be paid to the Trust to allow for Revenue recognition; – The amount to be deferred must either be specified or be calculated based on a specific formula that is not subject to ongoing decision making by the Province. **The Province cannot have the ability to override this formula;** – SPV/Trust and its debt holders will require their capital guaranteed and paid for directly by the Province if the Province revokes the legislation; and – The spirit of the legislation should be reflected in the Trust Indenture Agreement.

B. GA Smoothing – OPG's Financing Structure Requirements

KEY ELEMENTS REQUIRED TO ENSURE THE DEFERRAL OF GA CHARGES CAN BE FINANCED:

Creating the Right to Recover Deferred GA

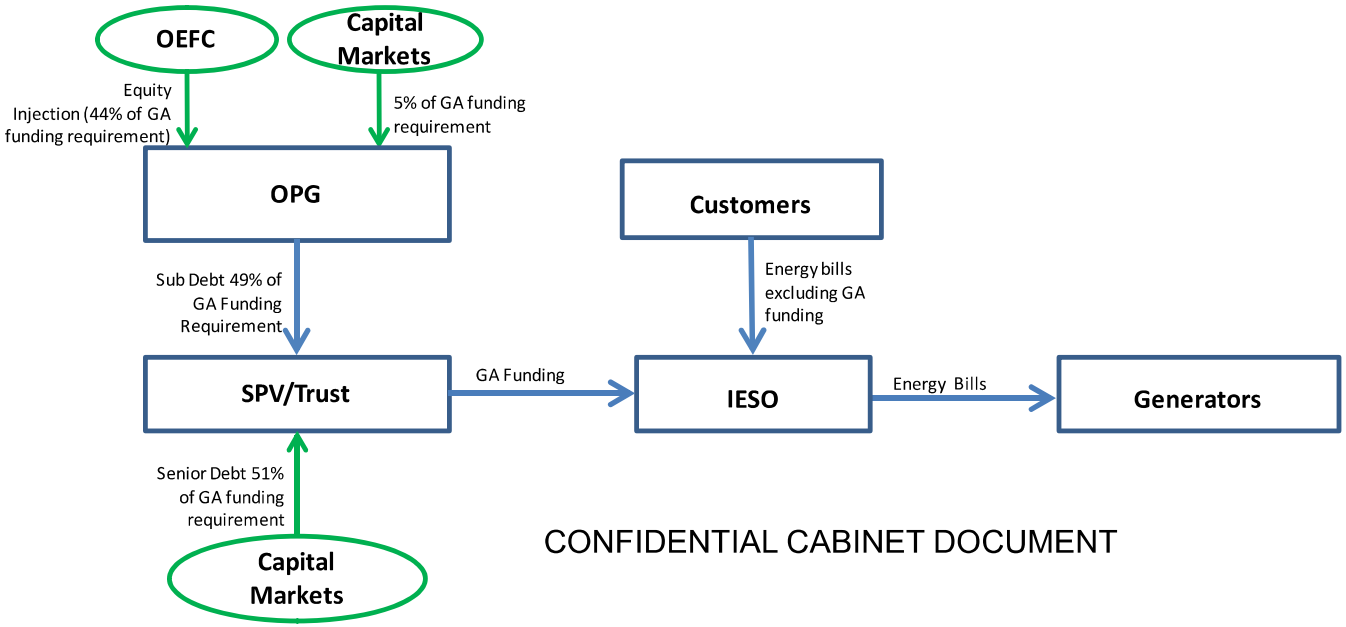
- Legislation enshrines the ability of the IESO to create a Right to charge customers in the future for the Global Adjustment (GA) deferred today including principal amount deferred, interest and other financing costs on the amount deferred and fees, expenses and other administrative costs.
- The Right can be sold to an appropriate Trust or Special Purpose Vehicle (SPV) to obtain funds to pay amounts due to generators under contracts or regulation. These SPVs are generally single purpose entities with no other operations that could add risk to the entity, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings.
- Right must be irrevocable and if the Right is amended by future governments the debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment.
- Right must specify the recovery period or the mechanism for setting the recovery rate including true up of the rate to ensure all amounts are recovered.

Economic Factors

- Limits on the recovery amount (principal, interest, fees and expenses) charged to customers in future periods must have compensating elements such as longer recovery period to ensure the full amount deferred plus interest, financing and other administration costs is recovered from customers.
- Need to balance customer relief with debt holder risk. Longer recovery periods and larger deferred balances increase risk to the debt holder of future government intervention.
- The amount required by the SPV to purchase and service the Right will be funded 51% from debt holders, 5% from OPG through capital markets and 44% from OPG via equity injection to OPG from the Province. The funding from OPG will be loaned to the SPV as subordinated debt.

B. GA Smoothing – OPG's Financing Structure Requirements (cont'd)

- Special Purpose Vehicle (SPV) will be used to raise the GA financing and ring fence OPG from its legal obligations
- SPV will be structured to allow for GBE accounting consolidation into OPG
- Given that SPV will be consolidated into OPG for accounting purposes, the significant amount of debt required to fund the GA deferral will have a severe impact on OPG's credit rating. If 100% of the requirement is funded by debt OPG would be downgraded.
- To manage this exposure and minimize the cost of funding. The required funding would be split into 2 buckets:
  1. 56% from capital markets; and
  2. The remainder provided by the Province via equity injection, which would be loaned to SPV as subordinated debt.
- The use of equity to fund a portion of the GA deferral also allows for an improvement in both Net Income and EBITDA as incremental revenue is captured by the increase in the value of the deferral which would offset the fiscal impact of the borrowing at Province level.
- Credit rating metrics are generally maintained within established limits.



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GA Smoothing – OEB Considerations

- Ontario Energy Board (OEB) oversight may be required as part of creating a regulatory asset.
- Subject to final confirmation, there are several other spheres for possible OEB oversight:
  - The rate payer impact of IESO deferral account and eventual repayment of the deferred Global Adjustment (GA), within pre-defined legislative parameters;
  - The administrative costs of the OPG's Special Purpose Vehicle (SPV) /Trust (e.g., as the OEB reviews and approves IESO's expenditure and revenue requirements and makes orders fixing just and reasonable rates for the Smart Metering Entity);
  - The SPV/Trust's returns (e.g., as the OEB does with OPG's regulated assets) and whether any income to OPG can be used for the benefit of rate payers;
  - The review of the final structure of the debt issuance for the limited purpose of ensuring requirements of law have been met; and
  - In out years, review of the collection of charges to ensure that collection is sufficient, and not greater than necessary, to pay debt service.
- The scope of OEB oversight will ultimately need to balance the interests and needs of rate payers, the market, OPG and the Province.

B. GA Smoothing – Ontario Financing Authority (OFA) Considerations

- Under the proposed structure, the financing of the deferred Global Adjustment (GA) costs would be effectively done in part by each of the OPG Special Purpose Vehicle (SPV)/Trust, the Province and OPG: the OPG SPV/Trust would borrow 51%, the Province 44% and OPG 5% of the required GA amounts needed to be financed.
  - In the alternative, the Province (through the OFA/OEFC) could borrow the required amounts each year, likely at a lower cost. However, the target for an arms-length trust and potential risk transfer would not be achieved.

	OPG Structured Financing	OFA/OEFC/Provincial Financing
Financing Considerations	• As the OPG SPV/Trust would be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • This would increase the cost of GA smoothing and the ultimate rate impact on future consumers. • The Trust would be exposed to interest rate changes. • Availability of debt financing may also be limited, depending on the overall amount of deferral, and the subsequent rate impact during the recovery period. OPG has cited examples of a 10% threshold on overall rate impacts of the deferral recovery amounts. • With a potential guarantee from the Province for the borrowing of the OPG SPV/Trust, OPG could see borrowing costs closer to the Province. However, this would redirect the risk back to the Province, removing the intended benefits of using this particular structure, and could add risk to the targeted accounting treatment. • With, or potentially even without a provincial guarantee, OPG SPV/Trust's borrowing could be seen as debt effectively supported by the Province by credit rating agencies and included in their analysis and determination of the Province's ratings. • If a Provincial guarantee endangers the targeted accounting treatment, it may be hard to justify the higher cost borrowing by OPG SPV/Trust to be passed through to ratepayers.	• Province's borrowing from the public markets would add to the borrowing program and the Province's gross debt. • The Province would expect to be able to finance the GA deferral at a lower financing cost than the OPG SPV/Trust, but would likely not achieve the targeted accounting treatment based on OPG's analysis. • Net debt would not increase, to the extent supported by increased equity in OPG under that model, and/or if the accounting treatment can be achieved as backed by a GA-related asset (OPG does not consider that the accounting can be achieved if the SPV/Trust is financed by the Province). • The Province's interest on debt (IOD)cost would need to be effectively recovered through the GA. – E.g., an OPG equity return to cover the cost of borrowing for the equity injection. – Or more directly if the Province is providing financing directly to the GA entity. • The cost of borrowing for the Province could change: 1. The Province's credit rating could be at risk of being re-evaluated by Rating Agencies, which may negatively impact the cost at which the Province borrows and 2. An increase in the Province`s borrowing rates, as a result of increased borrowing. The market may not have adequate demand for the Province to carry-out these borrowings without increasing the interest rate on the debt issues for GA financing and for all of the Province's borrowings. • The interest cost of GA deferral would be exposed to changes in the interest rate environment generally.

GA Smoothing – Legal Considerations

- In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a low risk of being a tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the short term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

- Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:
  - The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
  - If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30 year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
  - By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
  - The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

GA Smoothing – Policy Considerations

- Borrowing money to smooth the Global Adjustment (GA), while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
  - In addition, should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be spread over a smaller pool of consumption, further increasing future costs for individual ratepayers.

- The impacts are also based on a GA forecast. Since the GA fluctuates, actuals will vary based on demand, the addition of new generation and natural gas prices.
  - A "true-up" mechanism will be required to account for the difference between the "estimate" and "actual" GA costs.

- Although Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA smoothing (i.e., because it is only targeted to RPP consumers), the Ministry has a proposal later in the submission to address competitiveness for Class B consumers (i.e., targeted lowering of the Industrial Conservation Initiative (ICI) eligibility thresholder from 1 MW to 500 kW).
  - Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.
  - **Note:** Although Class B and Class A consumers will not receive the rate relief benefits of GA smoothing, both consumers will benefit from tax-basing the electricity social programs.

- Given the legal framework the amount of GA smoothing needs to be proportionate to the generating contracts (i.e., 20-year) and the additional years of generation services still available (i.e., additional 10-years of service).

- Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt to be incurred could have an impact on the Province's borrowing cost.

- The GA smoothing proposal will accrue total interest of $25 billion based on the proposed option. This amount of interest is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.
  - An increase in the borrowing rate from 5% to 6% would increase the total interest costs by almost $9 billion and would require an extension of the financing term beyond 30 years.

GA Smoothing – Fiscal Considerations

- If the proposed legal and accounting treatment of the GA financing smoothing proposal is not implemented, there would be a negative impact on the province's fiscal plan, as shown below.

Fiscal Impact ($M)	2017-18	2018-19	2019-20	2020-21	2021-22
Bills Lowered by 25%, RPP-Eligible Only*	2,534	2,668	2,942	3,420	3,232

*Numerical values represent amount borrowed in indicated fiscal year plus accumulated interest from previous year's accumulated debt

Source: Ministry of Energy

ENHANCING COMPETITIVENESS FOR CLASS B ELECTRICITY CONSUMERS

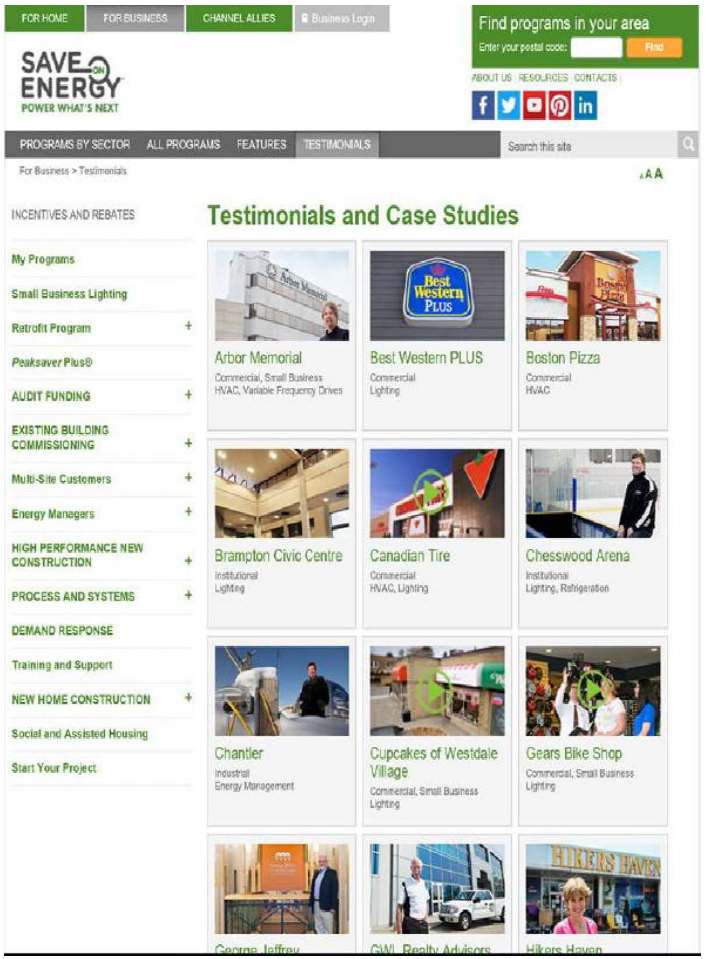
Support for Class B Consumers

- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).

- Through saveONenergy, many Class B consumers have already taken advantage of energy efficiency programs.

  - Although saveONenergy programs like Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of.

  - For Class B manufacturers whose electricity consumption is primarily based on process activities (e.g., injection moulding, welding, etc), traditional conservation measures like lighting and ventilation upgrades have limited benefit.



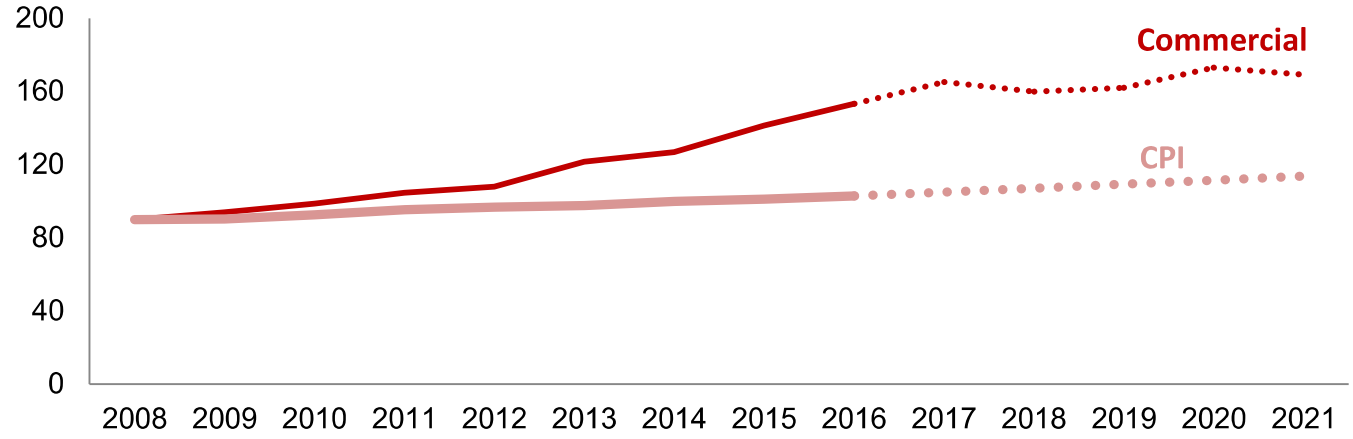
Support for Class B Consumers (cont'd)

- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A (so do not qualify for the Industrial Conservation Initiative (ICI) for large consumers).

- Price mitigation initiatives could be provided to Class B to address stakeholders' concerns (e.g., Coalition of Concerned Manufacturers of Ontario, etc).

- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.

Illustrative Electricity Prices
in $/MWh



***Source*:** IESO; OEB; Ministry of Energy

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Lower ICI Threshold Below 1 MW for Energy Intensive Industry

- The Industrial Conservation Initiative's (ICI) eligibility threshold for participation was recently lowered to 1 MW. The lowering of the ICI eligibility threshold provides an opportunity for additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers):
  - Beginning in July 2017, new participants will be billed Global Adjustment (GA) on the basis of their contribution to province-wide peak demand.
  - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses. **Note:** To achieve the benefits of ICI, participants must reduce their electricity demand during the five system peak hours.

- To enhance the competitiveness of larger Class B consumers whose electricity demand are too low to currently qualify for ICI, the Ministry proposed to:
  1. Expand ICI by extending eligibility to larger Class B consumers with average monthly peak demand over 500 kilowatts; and
  2. Target the expansion to energy intensive industries with the North American Industry Classification System (NAICS) codes 31 - 33 (i.e., Manufacturing).

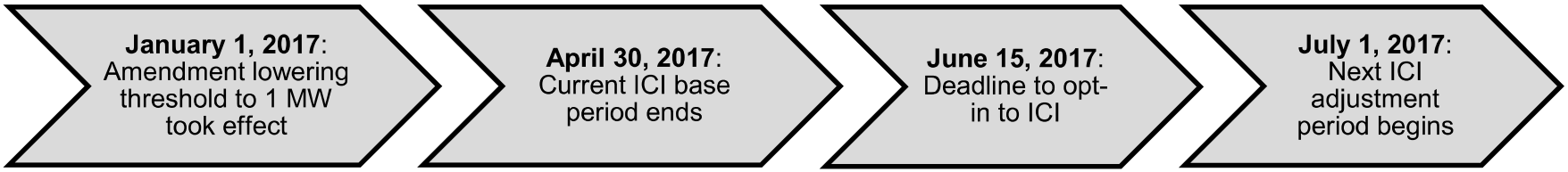
- In addition, the Ministry will assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

Lower ICI Threshold Below 1 MW – Considerations

- A targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW provides benefit to larger Class B consumers (i.e., manufacturing) while limiting the cost shift to other electricity consumers.
  - **Note:** A Class B consumer that run only a day shift, resulting in fairly peaky load profiles would need to adjusted its behaviour to maximize the benefits of ICI.

- Preliminary analysis by ENERGY staff show that the estimated impact of a targeted lowering of the ICI eligibility threshold from 1 MW to 500 kW would increase a typical residential bill by up to 0.66% or just over $1/month based on a 2016 bill of about $158.
  - The actual impact would vary depending on uptake and consumer responsiveness.
  - With the recent lowering of the ICI eligibility threshold to 1 MW, there is no information available regarding the actual impact on new participants and the electricity system.

- In order for any changes to ICI eligibility to take effect before the next 12-month billing period beginning July 1, 2017, regulatory amendments would have to be made before the end of April 2017.



Lower ICI Threshold Below 1 MW – Legal Considerations

- The quantum of a regulatory charge may be set at different rates within a regulatory structure where the differential prices are intended to serve other regulatory goals including an intention to modify the behavior of persons within the scheme.

- Expanding access to the Class A pricing regime is intended to serve regulatory goals by encouraging consumers to shift their electricity use away from peak hours, which benefits the electricity system as a whole. While Class B consumers will have to pay more of the GA cost in order to finance the reduction for Class A consumers, this is generally permissible since Class B consumers are not modifying their behaviour and the total amount recovered for the GA does not exceed its cost. CLB has previously advised that the differential pricing structure generally only attracts a **moderately low risk** of being a tax, and this risk level does not change if the option of Class A pricing is extended to a broader class of consumers.

- It is more difficult to justify a differential regulatory charge on the basis of behavioral modification when the lower charge is not available to some participants in the regulatory scheme whose conduct could equally serve the same goals. To the extent that there is not a regulatory rationale for extending the new class A option only to certain sectors, risk increases. The amount of risk in this scenario will vary depending on the quantum of the premium that Class B consumers pay to create the behavior modification incentive for Class A and the degree to which the excluded sectors can credibly claim to be able to achieve the same outcome were they permitted to participate in this aspect of the program.

ELECTRICITY SUPPORT AND CONSERVATION PROGRAMS TO HELP VULNERABLE ELECTRICITY CONSUMERS

Electricity Support and Conservation Programs to Help Vulnerable Electricity Consumers

- To date, a number of electricity support programs are funded through the electricity rate-base. There is opportunity to provide support to a more targeted subset of customers who are disproportionately affected by increased electricity costs and to shift these costs to the tax base.

- These customers include:
  - **High Delivery Cost Customers:** Some customers in rural areas where the cost to deliver electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
  - **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
  - **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

- To provide targeted assistance to the customers and alleviate electricity cost burden, ENERGY proposes to:

  A. **Enhance Rural or Remote Rate Protection** (RRRP) by funding its costs through the tax base and providing additional support to customers of designated Hydro One rate classes and other high distribution cost Local Distribution Companies (LDCs).

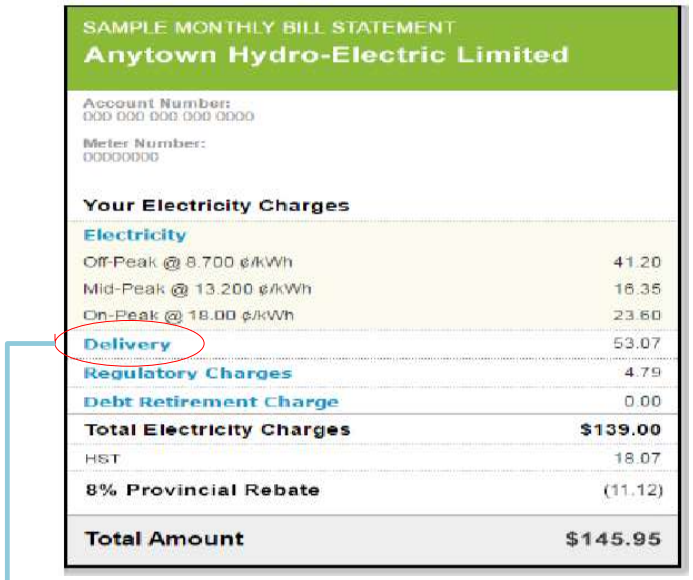
  B. **Enhance Ontario Electricity Support Program** (OESP) by funding its costs through the tax base and increasing eligible benefits by 50%.

  C. **Establish a new Affordability Fund**, providing energy efficiency measures at no or minimal cost to those who are ineligible for low-income conservation programs, have difficulty paying their electricity bills and who cannot make energy efficiency upgrades without financial assistance.

  D. **Implementing On-Reserve First Nations Delivery Credit**, to remove Delivery charges for on-reserve First Nations customers.

A. Delivery and Distribution Charge – Background

- The **Delivery** line on a typical consumer bill is specific to a consumer's Local Distribution Company (LDCs) and accounts for roughly 25-35% of the total bill before taxes.
- Delivery covers the costs of getting electricity from generating stations across the province to homes and businesses and combines three cost components of the electricity sector into one line item charge:
  - **Transmission:** The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
  - **Distribution:** The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line.
    - This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
  - **Line Loss:** The costs to recover electricity that is lost as heat when its delivered over a power line. Each LDC is assigned by the OEB a specific line-loss adjustment factor to reflect their loses particular to their assets. This factor is multiplied against the monthly electricity cost to determine the monthly cost.



SAMPLE MONTHLY BILL STATEMENT

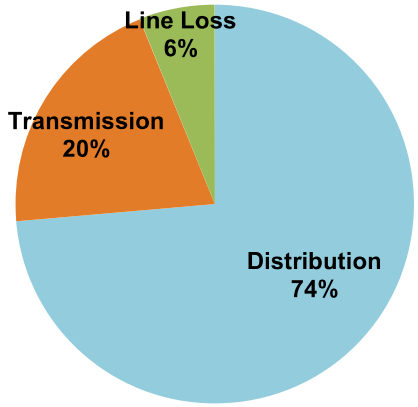
Anytown Hydro-Electric Limited

Account Number:
000 000 000 000 0000

Meter Number:
00000000

Your Electricity Charges	
Electricity	
Off-Peak @ 8.700 ¢/kWh	41.20
Mid-Peak @ 13.200 ¢/kWh	16.35
On-Peak @ 18.00 ¢/kWh	23.60
Delivery	53.07
Regulatory Charges	4.79
Debt Retirement Charge	0.00
Total Electricity Charges	**$139.00**
HST	18.07
8% Provincial Rebate	(11.12)
Total Amount	**$145.95**

Cost breakdown of Delivery Line for an Average Residential Bill*



* Toronto Hydro Bill @ 750kWhs

A. Rural or Remote Rate Protection Program – Background

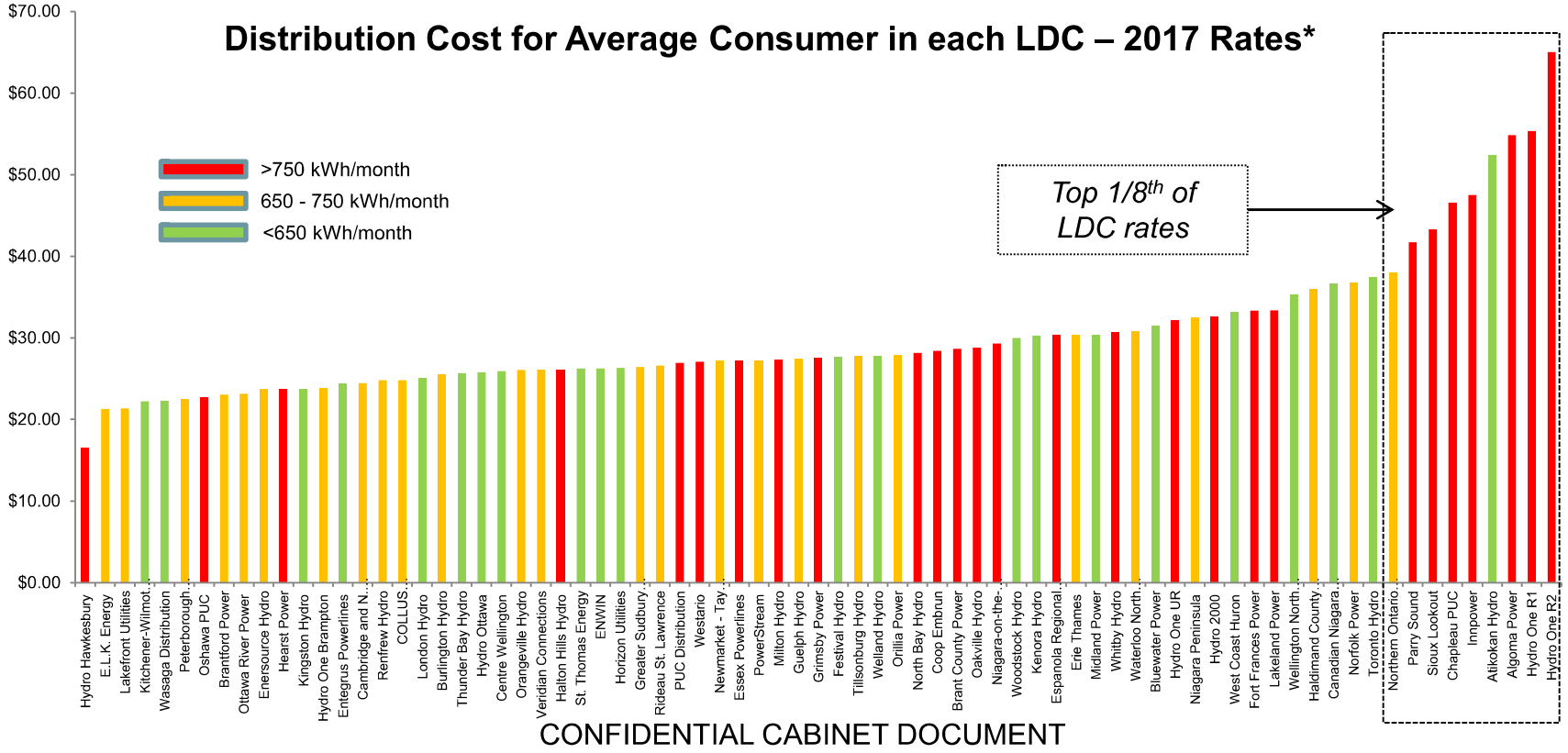
- Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001.
  - RRRP is funded by ratepayers in Ontario and funded through the regulatory line of the electricity bill. Currently costs $1.58/month for a 750kWh consumer.
- Part of the program helps fund the costs of Hydro One customers classified into the "R2" residential rate class. There are 335,000 R2 customers across the Province. These customers have some of the highest Delivery costs in the Province.
  - From 2001-2016 the program provided $125.4 million annually to help defray these costs.
  - In the 2016 Speech from the Throne, this funding was expanded by $116.4M to a total of $241.9 million.
  - As of Jan 2017 R2 customers receive $60.50/month off their distribution costs.
- These customers still have high delivery and high distribution costs and are often faced with significantly higher than average bills.
  - The higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- While the RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, there is an opportunity to provide further relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
  - If expanded to the top 1/8th of distribution costs, this enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Mitigation could be provided by harmonizing distribution rates for these LDCs at the lowest distribution rate paid by an average consumer in this group.
  - Based on projected 2017 LDC rates, the lowest distribution rate paid by an average consumer in this group would be ~$38/month (with the highest being $65).
  - Is consistent with the OEB's mandated move to fully fixed distribution rates for all LDCs.
  - Roughly 800,000 customers would receive benefits from the current RRRP program and from these additional enhancements.
  - Setting a lowest distribution rate across these LDCs would help mitigate geographic-based differences in rates for the consumers who are most impacted and often see such differences as inequitable.
- Mitigation for all electricity consumers would be provided by moving the existing RRRP program costs and the proposed enhancements from the electricity rate base to the tax-base.

A. Enhancing the Rural or Remote Protection Program (RRRP)

- The table below shows what 2017 distribution costs are projected to be for the average consumer within each LDC across the province, and highlights the highest-cost distribution rates.
- The charts on the following slides show what the benefits would be in each LDC if the fiscal plan was used to support harmonizing distribution costs for customers of the LDCs in the top ~1/8th of rate classes at $38/month.



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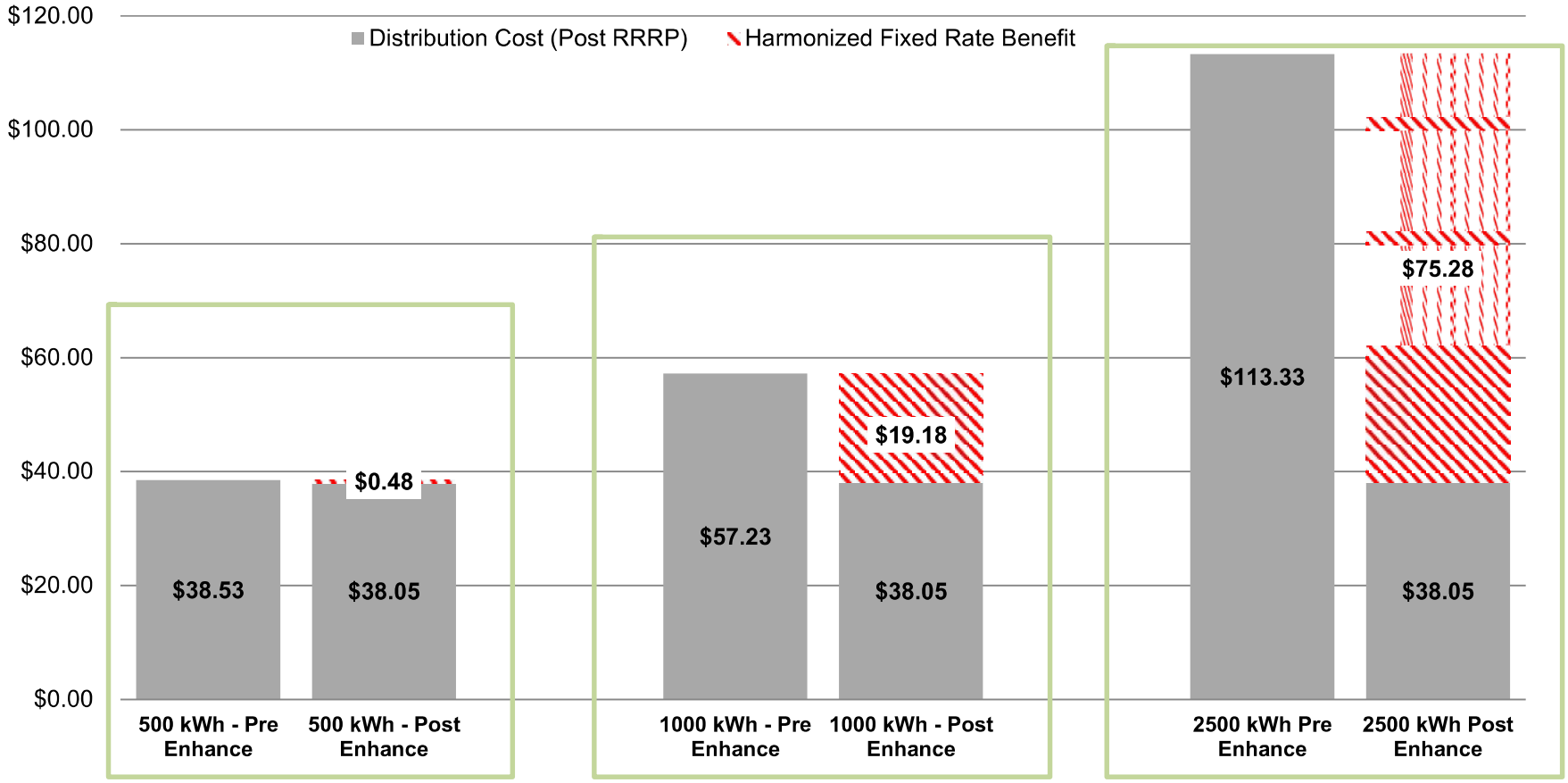
**2017 Approved and Proposed (Decisions Pending – rates are subject to change).*

A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R2)

- For Hydro One R2 customers, the enhanced benefits below are in addition to the $60.50 they already receive through the existing RRRP.



Note: *Rates are for 2017 (either approved or proposed). Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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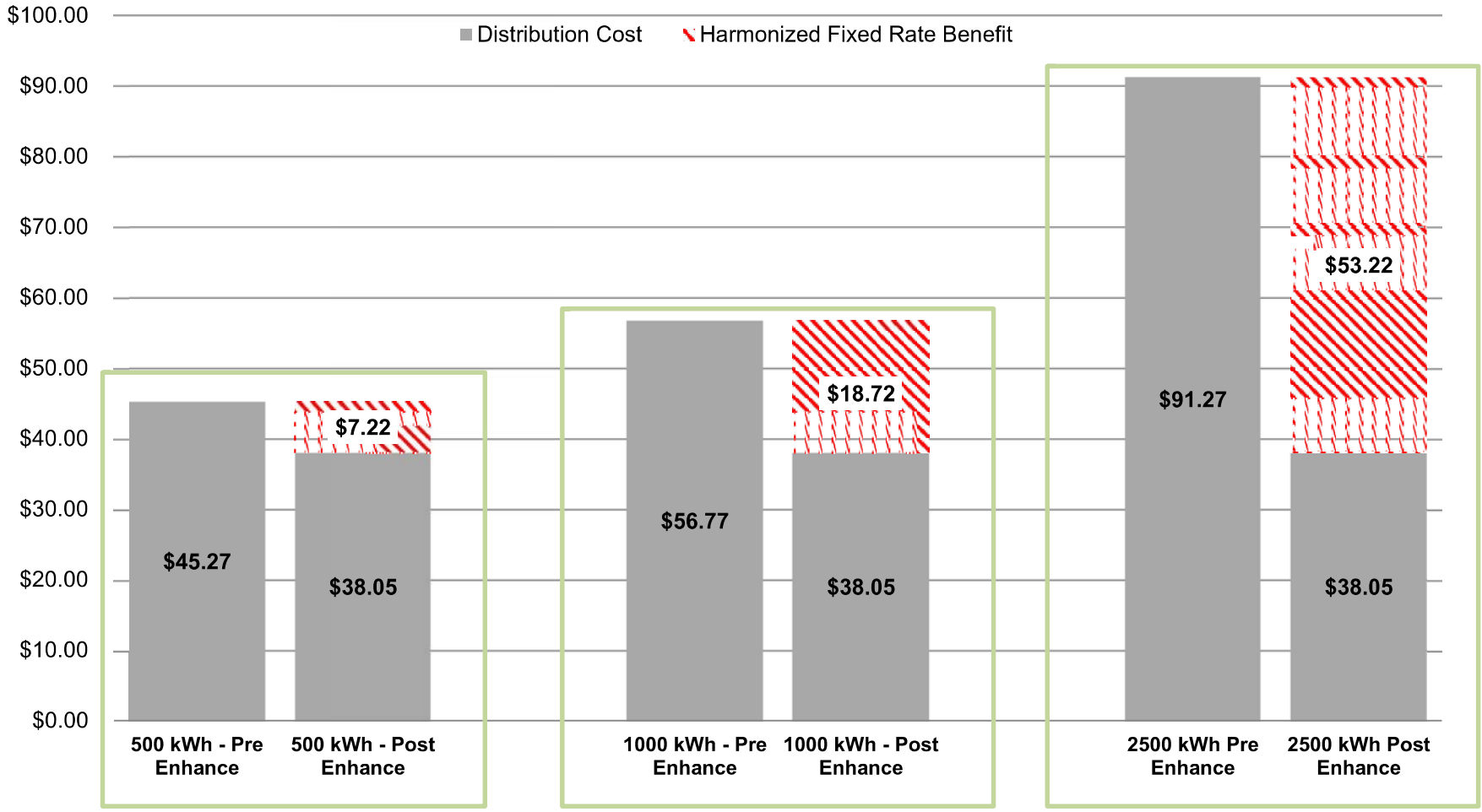
A. Harmonized Distribution Cost – Ratepayer Impact (Hydro One R1)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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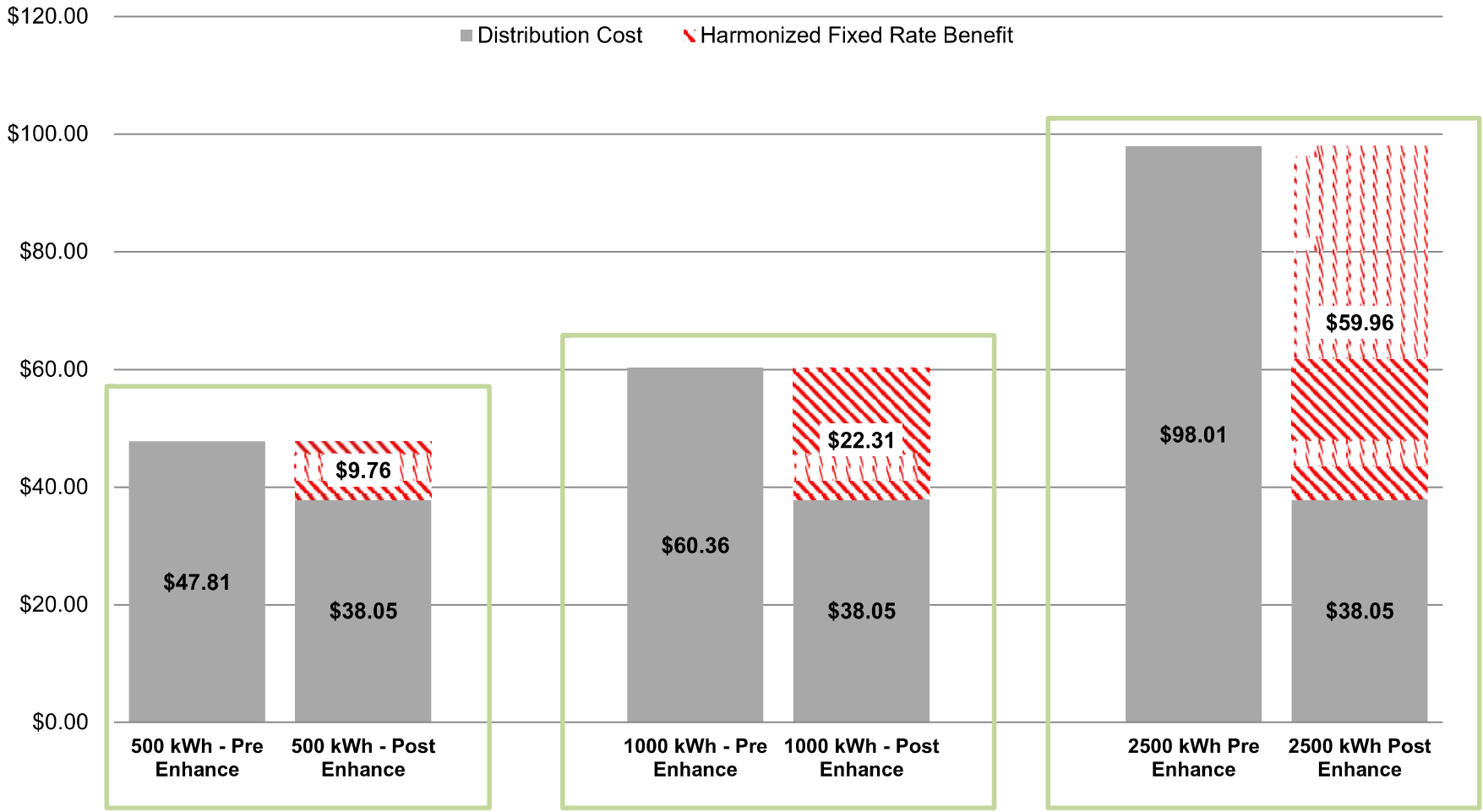
A. Harmonized Distribution Cost – Ratepayer Impact (Algoma Power)



Note: *Rates are for 2017 (either approved or proposed). Algoma Power receives RRRP to support operational costs. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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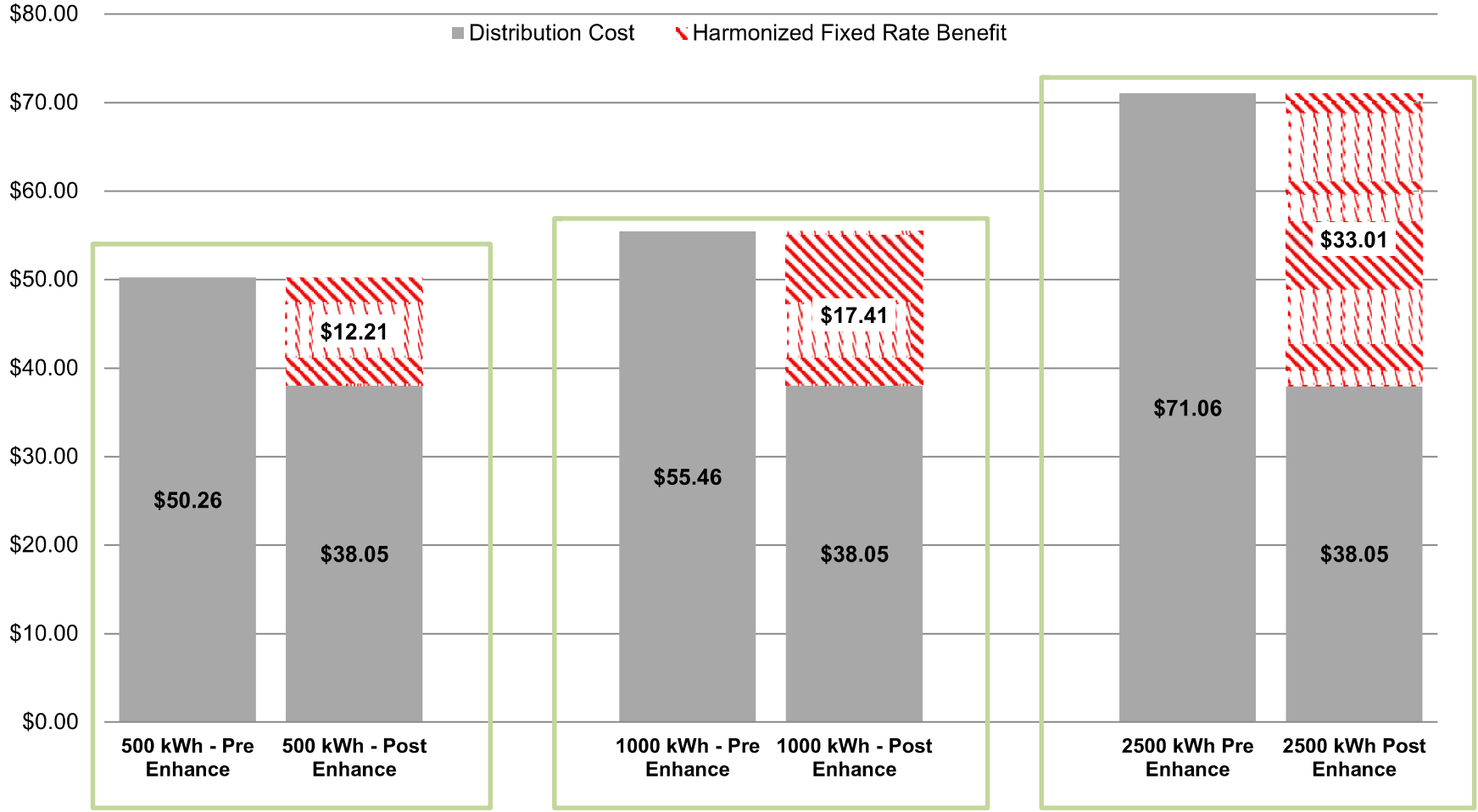
A. Harmonized Distribution Cost – Ratepayer Impact (Atikokan Hydro)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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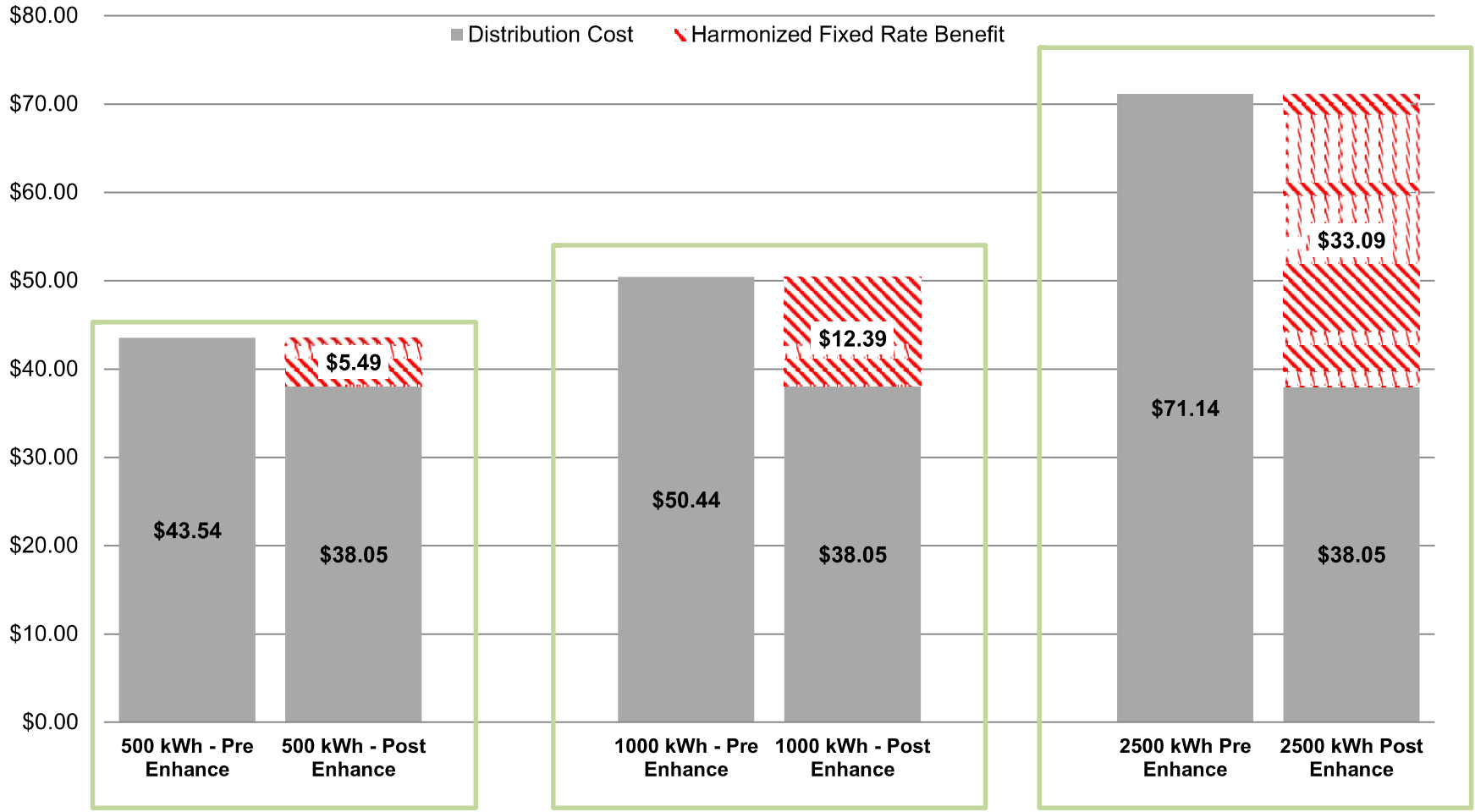
A. Harmonized Distribution Cost – Ratepayer Impact (InnPower)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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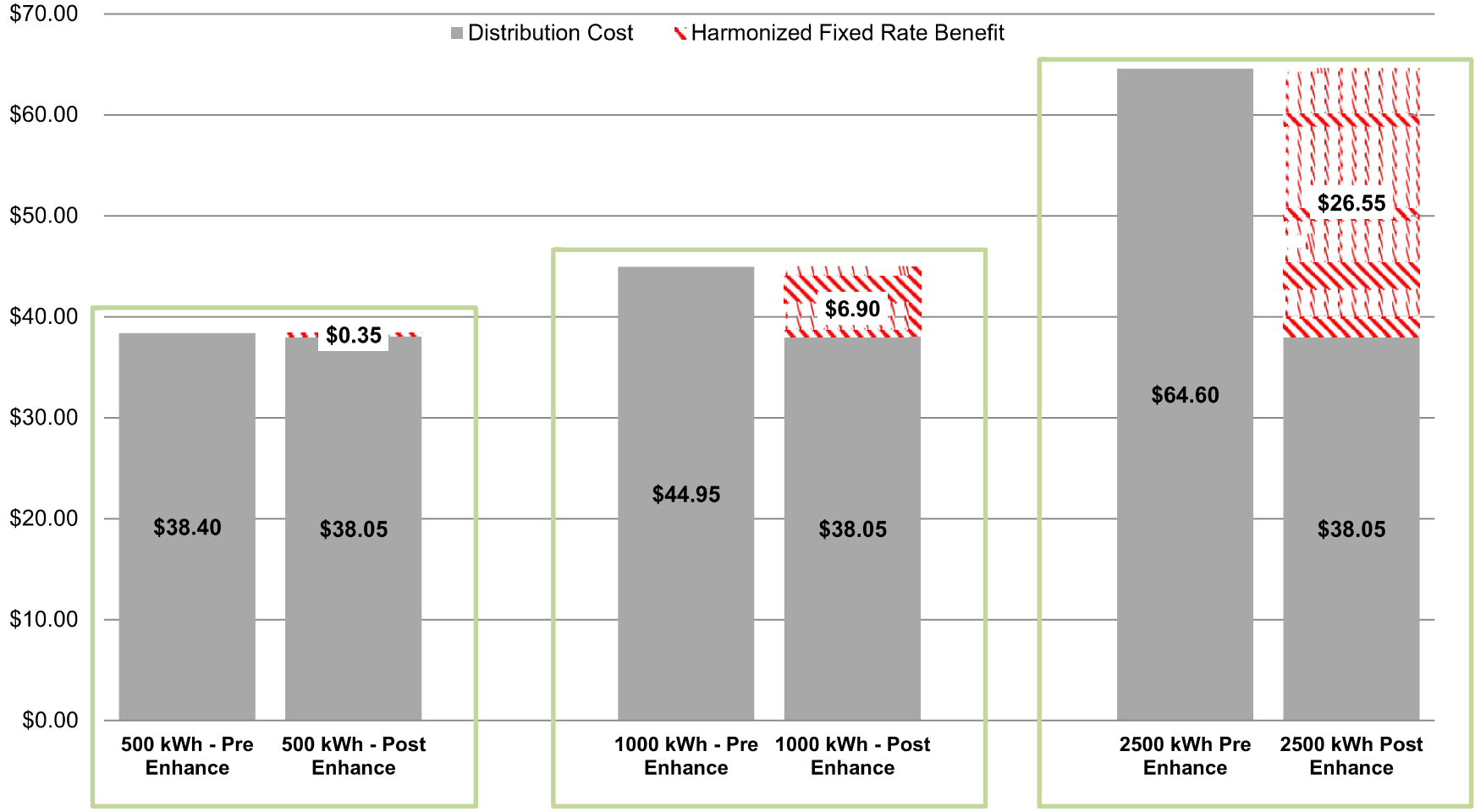
A. Harmonized Distribution Cost – Ratepayer Impact (Chapleau PUC)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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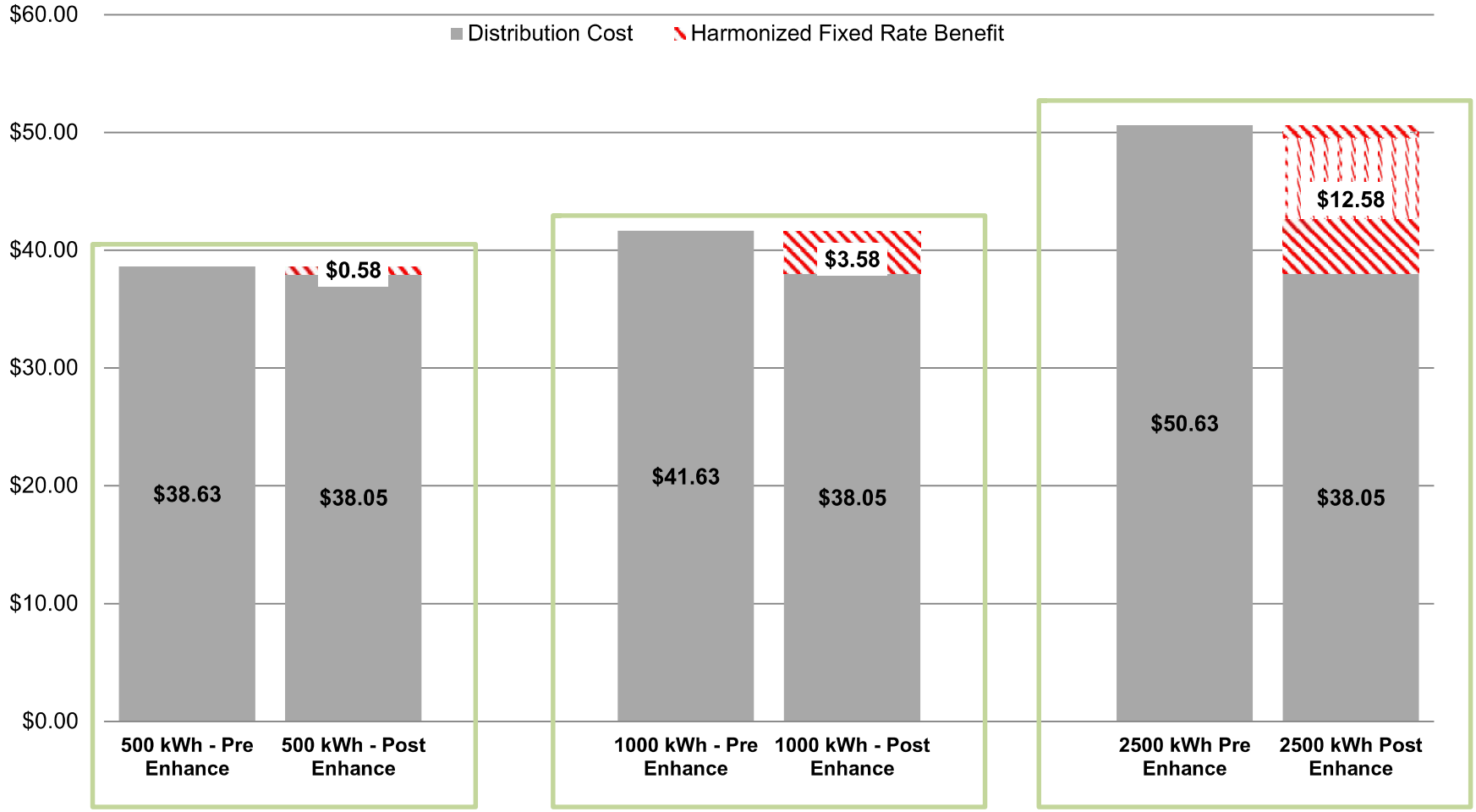
A. Harmonized Distribution Cost – Ratepayer Impact (Sioux Lookout Hydro)



Note: *Rates are for 2017 (either approved or proposed) Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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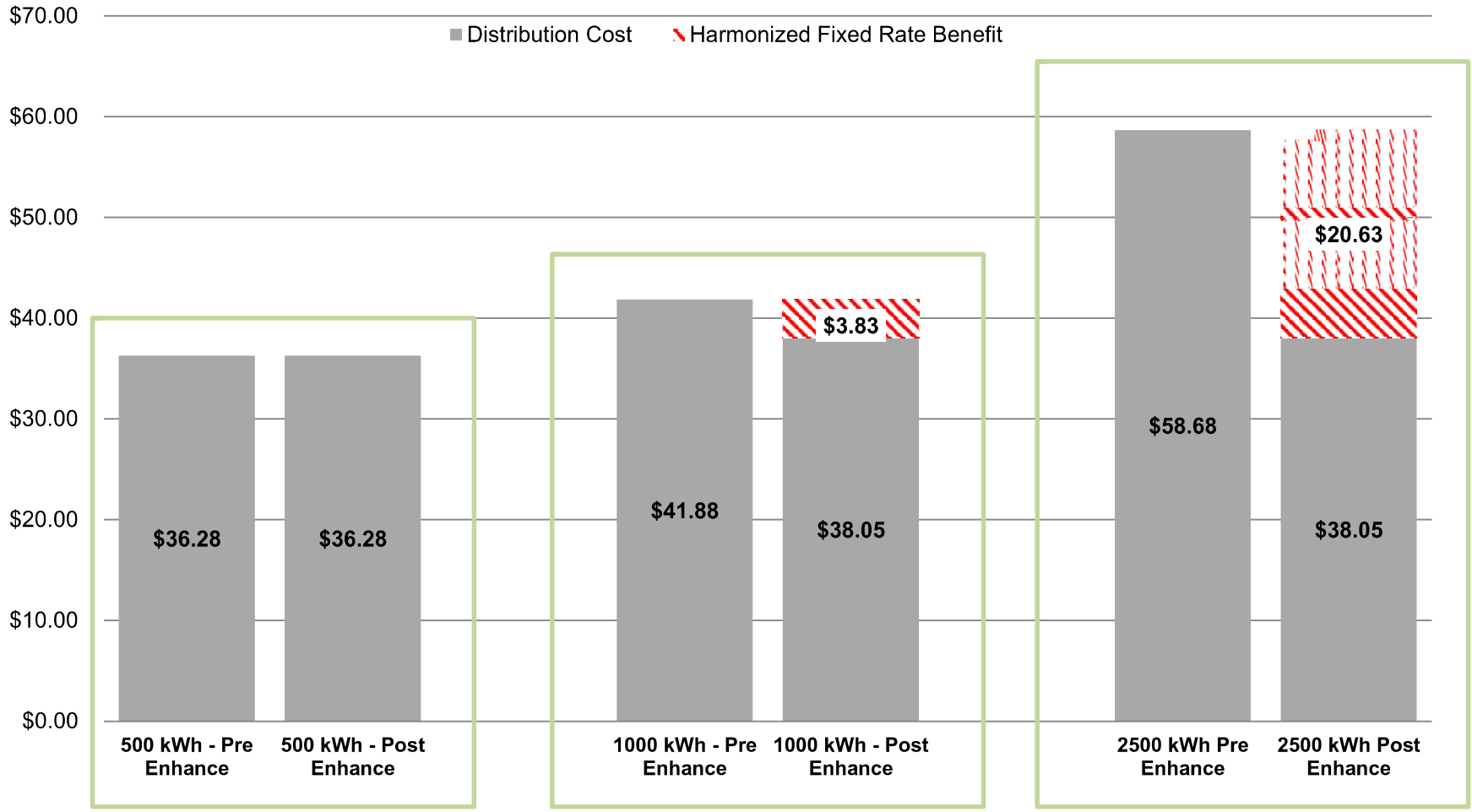
A. Harmonized Distribution Cost – Ratepayer Impact (Lakeland Power – Parry Sound)



Note: *Rates are for 2017 (either approved or proposed). Rates are for the Parry Sound territory within Lakeland Power. Other Lakeland Power customers (Huntsville area) not impacted. Distribution is one component of Delivery line charge. Transmission and line loss charges not shown.*

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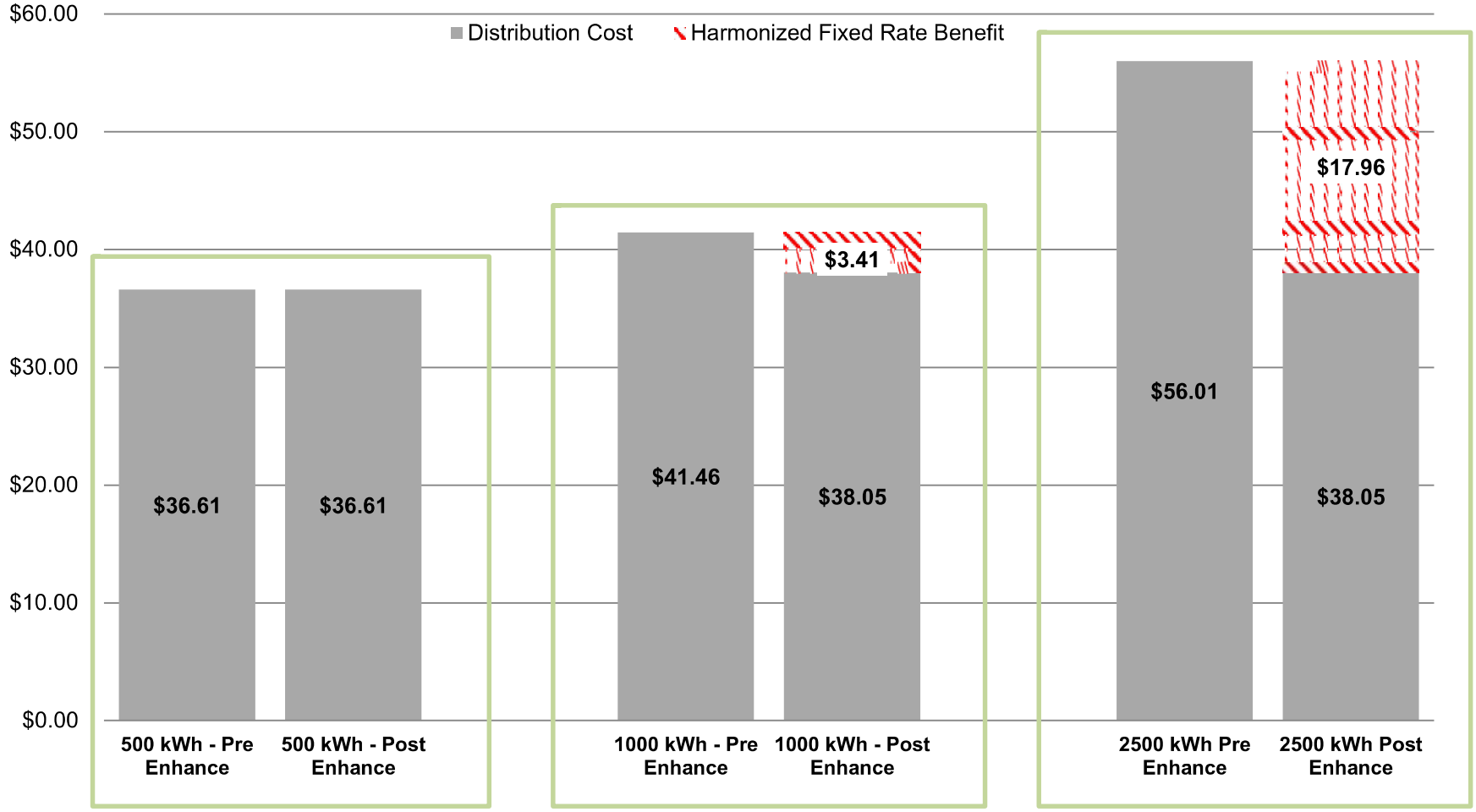
A. Harmonized Distribution Cost – Ratepayer Impact (Northern Ontario Wires Inc.)



Note: *Rates are for 2017 (either approved or proposed)*
Distribution is one component of Delivery line charge.
Transmission and line loss charges not shown.

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A. RRRP Enhancement – Considerations

Implementation

- The Ministry will need to ensure that only the high distribution cost LDCs are captured within the program framework
  - LDCs may need to be named explicitly in the legislation/regulation
  - A mechanism would also need to be created to ensure the level of benefit changes year to year
- LDCs will need to change their billing and customer information systems. OEB estimates that the implementation would take at least 6 months or more, following finalized regulations
- New legislation would be required to establish this program.
- Providing a tax-based subsidy outside of exiting rate setting mechanism reduces incentives for customers and distributors to engage on operating costs and capital planning.
- A mechanism will need to be created to ensure that LDCs/OEB/IESO/Province are aligned in the year-to-year forecasting and costing of the RRRP program and the enhancements.

A. RRRP Enhancement – Considerations (cont'd)

Fiscal

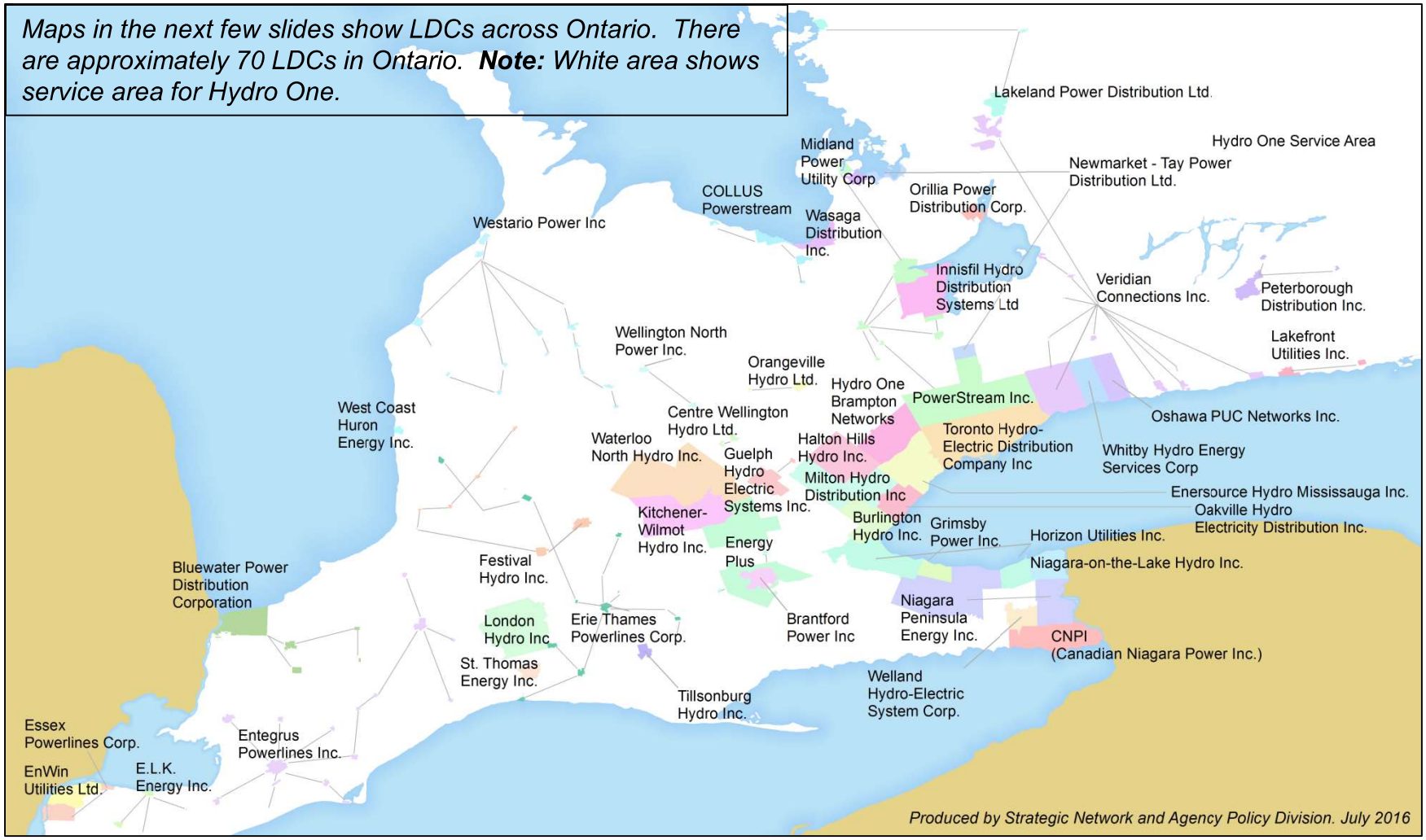
- As distribution costs vary year to year, forecasting fiscal impacts are challenging:
  - Hydro One is expected to submit its cost of service application for 2018 and beyond (3-5 years) in spring 2017. The rate increases requested in this application could potentially increase the proposed fixed rate which could have a significant impact on fiscal requirements and ratepayer impacts.
  - The other high distribution cost LDCs generally have lower distribution cost increases, however, it is difficult to forecast fiscally the impact of the program until LDCs submit their cost of service applications to the Ontario Energy Board (OEB).

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	-	**459**	**472**	**484**	**497**

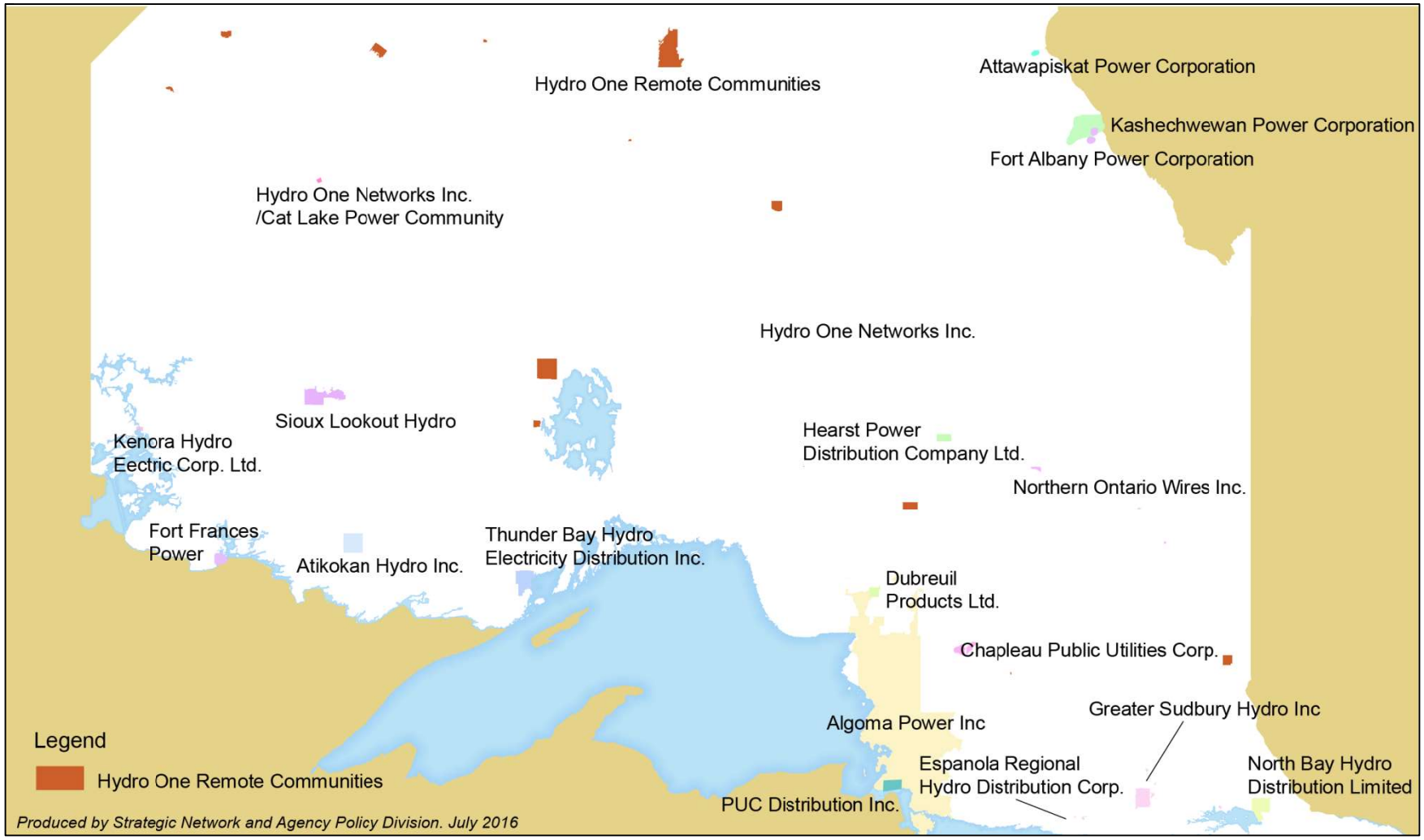
Note: Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.

A. RRRP Enhancement – LDC Service Territory (Southwestern Ontario)

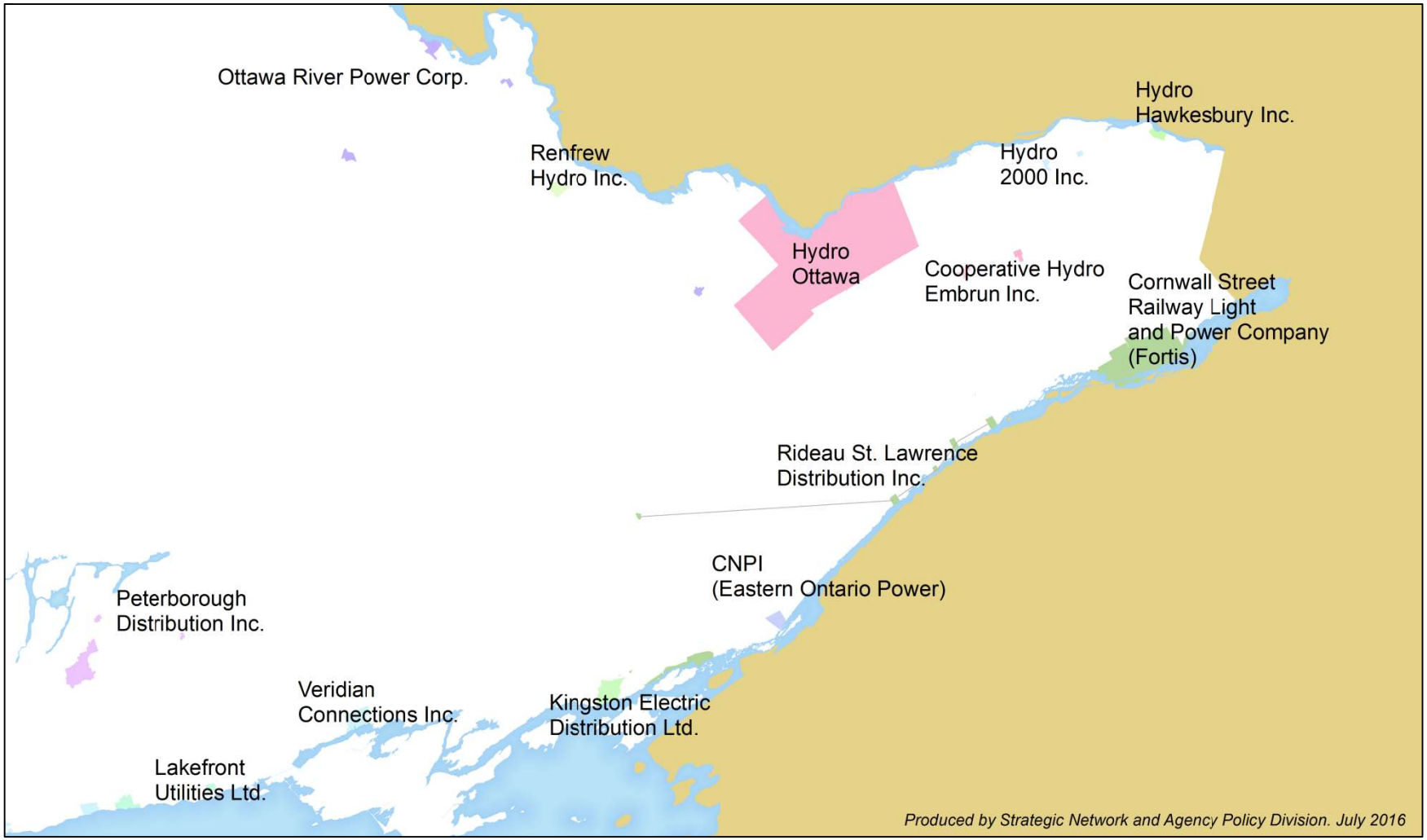
Maps in the next few slides show LDCs across Ontario. There are approximately 70 LDCs in Ontario. ***Note:*** *White area shows service area for Hydro One.*



A. RRRP Enhancement – LDC Service Territory (Northern Ontario)



A. RRRP Enhancement – LDC Service Territory (Eastern Ontario)



B. Ontario Electricity Support Program (OESP)

- The OESP is an income-tested, application based program that lowers electricity costs of the most vulnerable consumers by a rebate directly on bills. The OESP is currently funded by the rate base.
- OESP credits vary by income level and family size, and there are two credit scales that include:
  - The basic program credit ranges from $30/month to $50/month.
  - An enhanced credit that ranges from $45/month to $75/month for consumers that are either Indigenous, use electric heat or have certain medical devices.
- The OESP launched on January 1, 2016, and in just over a year:
  - Almost 180,000 have been enrolled in the program representing 30% of the total targeted low-income population and some 278,000 applications have been received.
  - Almost $50 million in credits have been provided to vulnerable consumers.
  - Some 172 intake agencies have been mobilized to assist low income consumers to apply for the OESP.
- To drive this uptake, the OEB has engaged in extensive outreach, including advertising in multiple languages, and continuing to work with partner agencies to develop a model for “application clinics” across the province to increase program awareness and uptake across the province.

B. Ontario Electricity Support Program (OESP) (cont'd)

- There are a numbers of ways that the OESP program can be enhanced:
  - Streamline the OESP process to drive participation toward 100%:
    - ENERGY and the Ministry of Community and Social Services (MCSS) have been working on automatic OESP qualification for Ontario Works (OW) and Ontario's Disability Support Program (ODSP) recipients who pay electricity bills.
      - MCSS estimates some 110,000 OW and ODSP recipients pay electricity bills;
      - This process could follow the "deemed eligibility" model used for the Healthy Smiles program. Using an existing model should simplify the implementation process.
      - The qualification process may have to be done manually at first, with a more automated IT solution in the longer-term.
    - Working with the CRA to make the application process easier / quicker to get through by finding an alternative to the requirement to mail-in signed consent forms;
    - Putting in place a more aggressive communications strategy and application intake clinics across the Province to increase awareness of/enrollment in the OESP.
  - Increasing the existing OESP credit scales by an additional 50%; and
  - Expanding the categories of OESP credits.

- It is also recommended that the OESP be supported from the tax-base as part of the rate mitigation package.

B. Ontario Electricity Support Program (OESP) (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

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***Note:** The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

B. Ontario Electricity Support Program (OESP) – Considerations

Fiscal Impact

- Changes to legislation / regulation may be required to establish and define the parameters for OESP to receive funding from the tax-base. The scope of changes would depend on the implementation / delivery mechanisms.
- The OESP regulation will likely require changes to enable OW and ODSP recipients to be "deemed eligible" for the OESP.
- Financial flow-through mechanisms would need to be considered in consultation with IESO and LDCs. Likely to be modeled after processes used for the Ontario Rebate for Electricity Consumers (OREC).
- The OEB has been collecting program funding in excess of program costs and has accrued a positive balance. This balance must be addressed when moving to the tax base.
- If OESP amounts are increased, it will need to be confirmed that the credit is not treated as taxable income. This was addressed in the current iteration of the OESP.
- Adding additional categories to the OESP matrix will take time to implement as it will require changes to the central system as well as LDCs' billing systems. As well, the matrix will no longer follow the Low Income Measure (LIM), which could put additional pressure on the OESP and other provincial programs.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

C. Establishing a New Affordability Fund

- For eligible low-income customers, the Home Assistance Program (HAP), delivered by LDCs under the Conservation First Framework, provides efficiency upgrades and education, at no cost, to help improve the energy efficiency and comfort of their homes and help customers manage their electricity bills.

- HAP does not address the needs of those customers that do not qualify as “low-income” but could benefit from conservation programs.
  - At the end of 2015, there were over 560,000* residential electricity accounts in arrears; of these about 19,900** (~3.6%) accounts were eligible to participate in low-income conservation and support programs.
  - According to the Ontario Energy Board (OEB), in 2015 about 60,000 customers had their electricity service disconnected.

Proposal: Establish Affordability Fund to Provide Existing Low-Income Conservation Program to Other Electricity Customers

- The Ministry proposes establishing an Affordability Fund which would be available to LDCs to provide similar energy efficiency measures as provided under HAP to targeted customers.

* **Note:** Unverified numbers reported by LDCs to the OEB
** **Note:** Low-income customers identified through participation in LEAP

Ontario

C. Establishing a New Affordability Fund (cont'd)

Fund Details:

- An Affordability Fund would be accessible to LDCs only, and would target those customers who cannot qualify for low-income conservation programs and are in need, such as those who are facing disconnection.
  - By providing support for energy efficiency improvements, the Fund could help these customers reduce their future bills and avoid future disconnections.
  - The Fund would provide LDCs with an additional tool to provide assistance to their customers.

Eligibility Criteria/Fund Principles:

- Determination of eligibility could involve a number of factors and metrics:
  - Do not meet the definition of "low-income";
  - May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.);
  - Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; and
  - Require financial assistance to pay for energy efficiency measures.

C. Establishing a New Affordability Fund (cont'd)

Implementation

- ENERGY is currently in discussions with several large LDCs to determine the principles of the Fund and is working with Hydro One to set up an independent Trust to serve as the Fund Administrator.
  - The Fund Administrator would manage the flow of funds to LDCs based on principles set by the province, and be responsible for establishing processes, administration, and criteria for funding applications, thereby ensuring the program is managed on a consistent basis across the province.
  - LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers in their service territories that meet the targeted eligibility criteria.
  - LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers.
  - LDCs are best positioned to identify and target their customers who are most in need.

- Given the scope of the Fund, an LDC would need a firm financial commitment up front before implementation. LDCs rely on rate-payer funding for most of their activities. The Affordability Fund would be a unique venture from an LDC perspective given that it is tax funded.

C. Establishing a New Affordability Fund (cont'd)

<u>Implementation</u> (cont'd)

- Recipients could receive measures ranging from an average of $3,000 to $5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:
  - Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
  - Programmable thermostats, weather stripping, insulation (in homes with electric heating).

- Cold climate air source heat pumps would also be an eligible measure under the Affordability Fund. Heat pumps range in cost from $7,000 to $13,000.

- As an illustration, with $200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

C. Establishing a New Affordability Fund – Considerations

Considerations

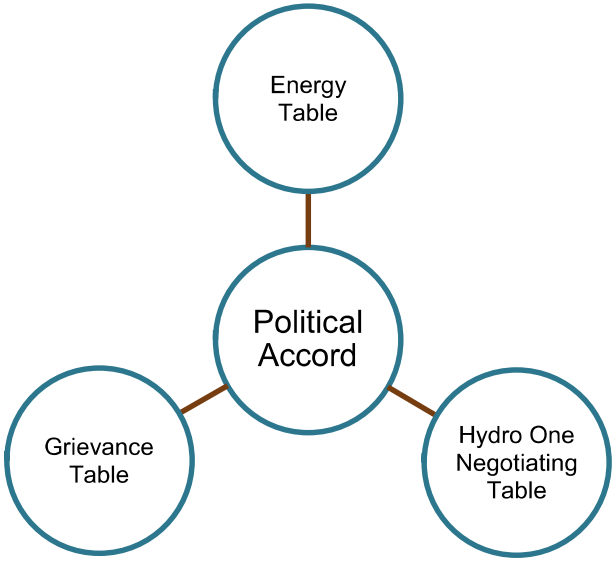
- The Affordability Fund addresses a real need.
  - LDCs have expressed the need for an additional tool to provide assistance to their customers.
- Determining allocation of funds to LDCs:
  - Some LDCs may have a disproportionate number of customers in need of assistance; and
  - ENERGY is proposing to seek input from the OEB, LDCs and potentially low income organizations to help develop funding allocation and eligibility principles for the Trust.
- While eligibility principles will be established, LDCs will need a degree of flexibility to target customers:
  - Not all customers who are in need will actively seek help;
  - Some customers in arrears may be "gaming the system" and not truly in need; and
  - LDCs recommend targeted outreach as opposed to broad marketing; a high volume of applications would limit the ability to deliver assistance to customers who need it most.

Fiscal Impact

- The Affordability Fund would represent a fiscal impact of $200 million in fiscal year (FY) 2016/17.
- To allow for funds to flow in FY 2016/17, ENERGY would sign a Transfer Payment Agreement (TPA) with Hydro One and transfer money before end of fiscal year to ensure Hydro One can establish the Trust and the Trust can begin operation as the Fund Administrator.
- There is a fiscal risk if monies used for the Fund do not flow before FY year-end 2016/17 and for monies that are sitting in Hydro One at year-end (because of consolidation with province), and a corresponding fiscal pressure in the following years when the funds are flowed from Hydro One (H1) to ratepayers.

D. Implementing On-Reserve First Nations Delivery Credit

- ENERGY has a number of Tables with the Chiefs of Ontario (COO) and First Nations that include the Energy Table to discuss policy issues, the Hydro One Negotiating Table to discuss Hydro One shares, and the Grievance Table.
- The Grievance Table process was established at the request of COO as a means to avoid litigation to resolve historic grievances related to the energy sector and prevent these issues from impeding progress on broadening the ownership of Hydro One (H1).
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.



- On June 27, 2016, following discussions on Hydro One shares and rates at COO's All Chiefs Conference, the Minister of Energy issued a letter directing the OEB to prepare a report providing "*advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers*".
  - OEB engaged with First Nations, including remote communities, the distributors serving them, and consumer groups such as the Low Income Energy Network. It also established an Advisory Committee with the Chiefs of Ontario's Grievance Committee.
- The Ontario Energy Board (OEB) has worked with COO to engage with First Nations to develop options for a First Nations electricity rate. The OEB provided a report to the Minister on December 29, 2016.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- On-reserve First Nations customers face unique challenges that impact electricity affordability, such as the poor quality of the housing stock on-reserve. These challenges result in significantly higher electricity consumption levels and costs.
- First Nations living on reserve are particularly vulnerable low-income consumers: the average income is considerably lower compared to First Nations living off reserve and compared to non-Indigenous populations:
  - Average income of First Nations on reserve in Ontario: $21,100;
  - Average income of First Nations off reserve in Ontario: $31,527;
  - Average income of Non-Indigenous people in Ontario: $42,506; and
  - Median incomes on smaller reserves can fall below $10,000 (e.g., Cat Lake FN).
- Employment rates also differ between on-reserve First Nations, off-reserve First Nations and Non-Indigenous individuals, as well as other indices of social vulnerability:
  - 54% of Indigenous people over 15 years old and living on-reserve in Ontario are unemployed or not in the labour force;
  - The on-reserve unemployment rate is 18.3% compared to 6.4% in Ontario generally; and
  - 67% of families residing on-reserve are single parent families, compared to the Canadian equivalent of 19%.
- First Nations are seeking redress for historic grievances related to lands affected by energy developments, such as transmission or distribution infrastructure built on reserve lands and traditional territories where, in some cases, they may not have been appropriately consulted.
- Further, in some circumstances, linear infrastructure corridors cut First Nation reserves in half, significantly disturbing the use and management of an already small land base; the First Nation communities disturbed by energy infrastructure report having experienced long wait times (e.g., 20 years) for their communities to get connected and receive the benefits of the energy derived from the local infrastructure.

D. Implementing On-Reserve First Nations Delivery Credit (cont'd)

- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
  - Eliminate the delivery charge for all on-reserve First Nations residential customers and eliminate the monthly service charge for customers of licensed distributors which charge a bundled rate;
    - The OEB estimates this would provide residential customers an average monthly benefit of $85 at a total annual cost of $13 to $20 million.
  - Automatically qualify on-reserve First Nations residential customers (~21,500 customers);
  - Enable greater information sharing between distributors and band councils to identify all on-reserve First Nations customers; and
  - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- The OEB suggested the program should be funded from the tax base as it is targeted to a particular segment of the provincial population, or, if rate based, to use a province-wide charge.
- ENERGY recommends moving forward with the implementation of the OEB's recommendations as part of the wider electricity rate relief package and as the Hydro One share agreement with COO continues to be implemented.

Distributor	Number of On-Reserve Residential Customers
Algoma Power Inc.	473
Attawapiskat Power Corporation	336
Bluewater Power Distribution Corporation	237
Cat Lake Power Utility Ltd.	80
Cornwall Electric Distribution	514
Hydro One Networks Inc.	16,679
Hydro One Remote Communities Inc.	2,579
PUC Distribution Inc. (Sault Ste. Marie)	264
Thunder Bay Hydro Electricity Distribution	332
Total Number of Customers	**21,494**

Source: OEB Report to Minister: Options for an Appropriate Rate Assistance Program for On-Reserve First Nations Electricity Consumers (Page 5).

D. Implementing On-Reserve First Nations Delivery Credit – Considerations

- Legislative and regulatory will be required to implement this program.
- The OEB will need to work with the LDCs to identify on-reserve consumers to administer the delivery rebate.
- Development of a communications plan containing the following elements:
  - Public release of the OEB report;
  - Commitment to working with LDCs on implementation details; and
  - Advanced notice to the OEB and COO regarding the ministry's decision to move forward on the OEB's recommendation and indicate a willingness to work collaboratively with COO on ways in improve community-LDC communication to ease implementation.
- The rebate will appear on customer's electricity bills, either as a specific line item or a communicated call-out.
- Recipients would continue to be eligible for programs such as the Ontario Electricity Support Program (OESP) and the Low-Income Electricity Assistance Program (LEAP).
- There is a risk that either non-status Indigenous communities without reserves or Métis could challenge the program on the grounds that it discriminates against them contrary to section 15 of the Charter. A genuinely ameliorative program that targets some people but excludes others is shielded from a s. 15 challenge if it serves or advances the ameliorative goal. The proposal has an ameliorative purpose as it targets First Nations communities for a reserve-based program corresponds to the distinct circumstances of reserve-based communities, relative to other Indigenous communities, that affect electricity affordability.

Fiscal Impact ($M)	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
On-Reserve First Nation Delivery Credit	-	20	20	20	20

Fiscal Roll-Up

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

***Note:** Current regulatory framework calls for RRRP to increase by average distribution rate increase. Forecast assumes 2.6% annually though is subject to OEB proceedings. Fiscal projection is subject to consumer consumption patterns that may change due to extreme weather or other factors. Does not include Algoma Power or Hydro One Remotes, which would continue to be on the rate-base.
****Note:** Funding for the Affordability Fund is one-time in 2016/17.

BENDING THE FUTURE COST CURVE OF ELECTRICITY

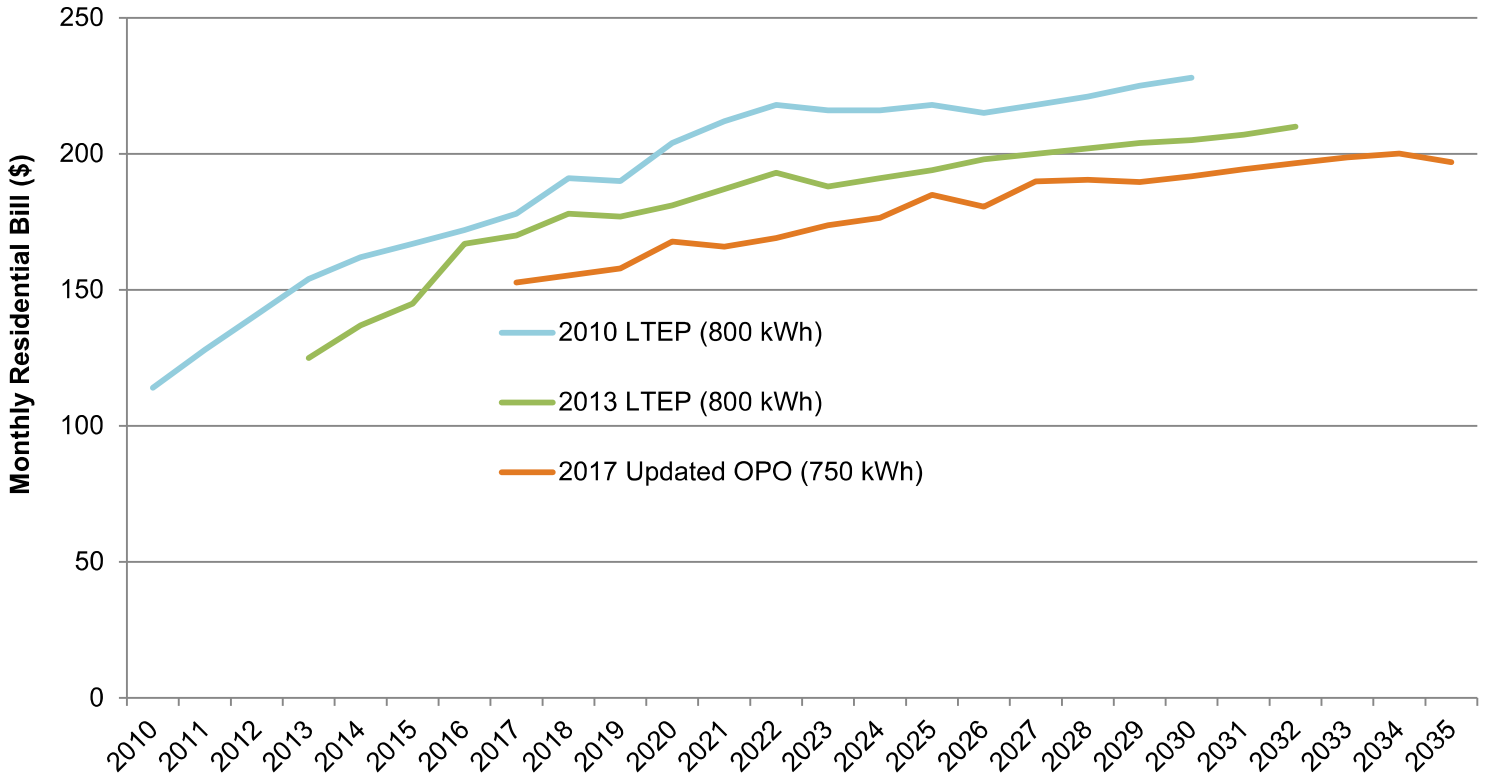
Existing Rate Mitigation Actions To Bend The Cost Curve

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
  - Renegotiating the Green Energy Investment Agreement to reduce contract costs by $3.7 billion.
  - Reducing Feed-In Tariff (FIT) prices saving ratepayers at least $1.9 billion.
  - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs approximately $1.5 billion lower than the 2013 LTEP forecast.
  - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated $15 billion in new construction costs.
  - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve $1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about $600 million.
  - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to $3.8 billion in costs.
  - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – up to [$xx] cost savings.

CONFIDENTIAL CABINET DOCUMENT

Existing Rate Mitigation Actions To Bend The Cost Curve (cont'd)

- The chart below shows how electricity rate forecasts have trended down over time.



Sources: *2010 LTEP (800 kWh/month); 2013 LTEP (800 kWh/month); Revised Ontario Planning Outlook (750 kWh/month as of February 2017) which includes: ICI expansion, RRRP update, 8% rebate, HQ agreement, suspension of LRP II and EFWSOP.*

A. OEB – LDC Efficiencies and Rates

Leveraging the OEB

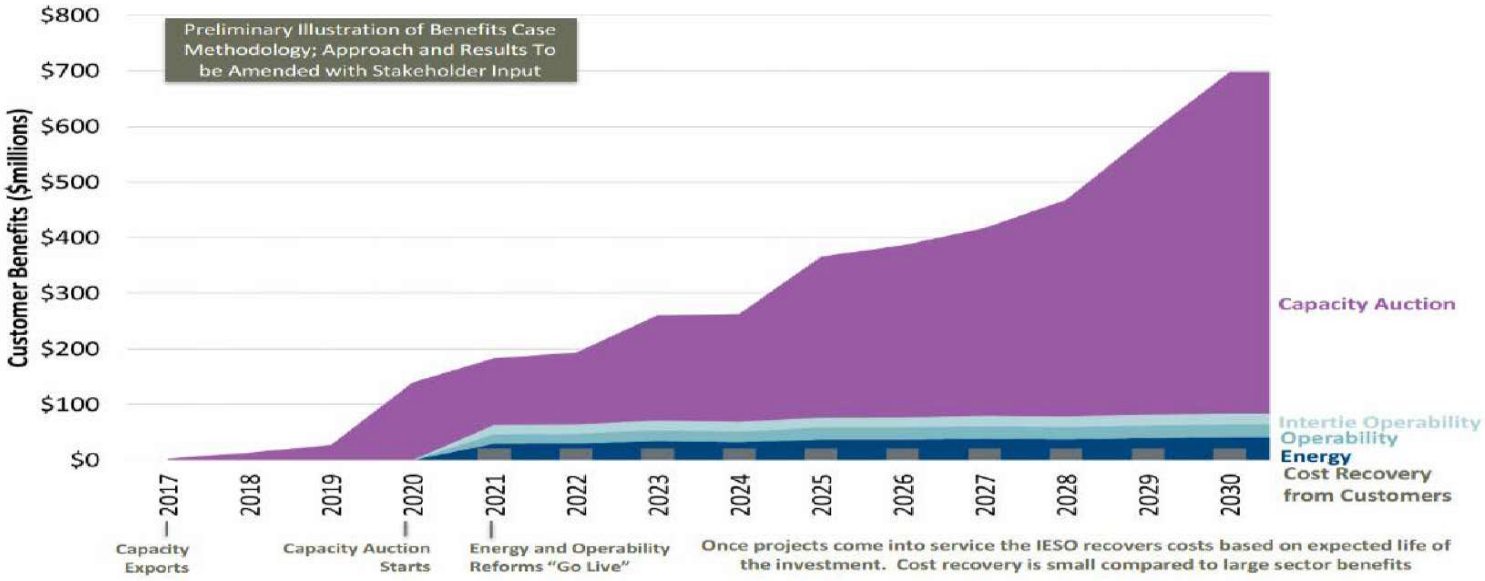
- The Ontario Energy Board (OEB) has a mandate to regulate the electricity distribution sector in the public interest, ensuring the financial viability of the sector while promoting reliable service to customers at just and reasonable rates.
- The OEB, through the Renewed Regulatory Framework for Energy (RRFE), has since 2012 attempted to move the distribution sector towards a performance/outcomes-based regulatory framework.
  - While new reporting requirements such as the LDC performance scorecard are positive developments, RRFE does not tie these system performance expectations to LDC financial performance.
- Encouraging shared partnerships on services between utilities will help reduce costs in the back end and encourage further innovation for small to medium sized utilities.
- In 2012, the government asked the Ontario Distribution Sector Review Panel to make recommendations about how the distribution sector could become more efficient. The Panel concluded that a $1.2 billion net present value in savings could be achieved by consolidating LDCs into 8-12 regional entities.

Opportunities

- ENERGY could help promote and accelerate these efforts by asking the OEB to look at opportunities to further drive LDC efficiencies and productivity. This may indirectly incent LDC consolidation.
- In parallel, the OEB could be instructed to review business cases behind its own regulatory requirements to reduce “red tape” and eliminate costs that LDCs indicate are creating pressures on operating expenses.
- This could be done through the Minister's letter, the LTEP Implementation Directive, s. 35 of the *Ontario Energy Board Act, 1998*, and/or the 2017 Mandate Letter and other agency business planning processes.

B. IESO – Market Renewal

- Continue to move forward with Independent Electricity System Operator's (IESO) Market Renewal initiatives:
  - Moving to "technology-agnostic" procurements will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible.
  - Market Renewal encompasses projects such as a single-schedule system (from the current two-schedule system), more frequent intertie scheduling to better align with other jurisdictions and a day-ahead market. There will be up front capital costs to enable the initiative. IESO is currently assessing these costs.
- Changes related to IESO's Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to $300 million per year, starting in 2021, leading to a reduction of:
  - About $1/month or less than 1% at current retail prices for a typical residential bill; and
  - About $1.30/MWh at current all-in prices for industrial and SME electricity consumers.



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SUPPORT FOR TENANTS

Support for Tenants – Context

- The government is considering measures to provide relief from high electricity prices, and is interested in ensuring that tenants also receive electricity cost reductions and/or relief.

- Currently, tenants generally either pay for their own electricity use through suite meters (i.e., sub-meters or direct arrangements with hydro providers) or pay for electricity indirectly as a service included in their rent:
  - Tenants who pay for their own electricity will receive electricity costs savings directly through their bills; and
  - Low-income tenants who pay own electricity bills can access energy support programs such as the Ontario Electricity Support Program administered by the Ontario Energy Board (OEB).

- Any potential initiatives could focus on the following options:

For tenants who pay own electricity bills

1. Expand OESP to increase relief or raise income thresholds.

For tenants whose electricity is included in rent

2. Require that landlords pass savings on to tenants (could be addressed by MHO through RTA amendments).
   - Options could include requiring landlords to automatically reduce rents, or allow tenants to apply the Landlord and Tenant Board for relief.
3. Provide energy rebates directly to tenants whose rent includes electricity.

Support for Tenants – Potential RTA Hydro Relief Measures / Considerations

- RTA amendments with respect to tenant relief, remedies, and enforcement would be complex, and unable to provide immediate, direct and transparent cost remedies to tenants:
  - Impact of hydro relief measures and electricity cost savings for landlords may vary depending on size of rental building and location (urban/rural):
    - One size fits all approaches would not match actual landlord savings to direct tenant relief; and
    - More targeted approaches would add extreme complexity, leading to greater confusion for landlords and tenants, and difficulty administering enforcement.
  - Passing on actual savings could likely only be done after landlords have experienced decreased costs for a period of time (i.e. one year).
  - Difficulty in informing landlords of their responsibilities and enforcing reductions; would likely have significant resource implications for the Landlord & Tenant Board/Ministry of Attorney General.
  - Difficult for tenants to understand, with the most vulnerable tenants potentially less able to pursue remedies through the LTB.
- The kinds of potential RTA remedies would depend on various specifics regarding the way in which relief was being provided to landlords including whether:
  - The actual electricity cost savings for landlords are transparent to facilitate easy calculation of rent reductions or relief;
  - Hydro relief measures are permanent or temporary; and
  - All relief should be passed on to tenants, or just a portion of the relief (e.g., global adjustment fund, 8% rebate, any other relief).

Support for Tenants – Potential RTA Hydro Relief Measures / Other Considerations (cont'd)

- As part of Climate Change Action Plan, MHO has been directed to mitigate the impact of carbon costs on tenants, and is proposing to prevent landlords from charging above-guideline rent increases for extraordinary utility costs increases.
  - May seem unfair that landlords are required to reduce rents or provide relief when utility costs decrease but cannot increase rents when utility costs increase.
- Relief would be limited to certain segments of tenant population:
  - Post-1991 buildings are exempt from the Rent Increase Guideline and landlords could negate any savings to tenants in these buildings through a higher subsequent rent increase.
    - Over 19% of tenant households are estimated to live in post-1991 private rental units including individually rented condos; a high proportion may already pay for electricity separately.
  - Relief may not be required for social housing tenants:
    - Most social housing tenants (80%) pay as per utility scales, which covers electricity usage other than electric heat; and
    - Utility scales were last updated in 2000 and are reflective electricity prices at that time.
- MHO, working with ENERGY and MAG will report back in Spring 2017 with options for electricity rate mitigation for tenants.

Legislative Authority – Considerations

GA Smoothing

- **Amendments to *Electricity Act, 1998* (EA) and *Ontario Energy Board Act, 1998* (OEBA)**
  - The OPG Trust will require authority to recover principle, interest and administrative costs through GA from customers.
  - Legislation would authorize IESO to collect amounts on behalf of the OPG's SPV/Trust and settle accounts with the OPG Trust as a service provider. Regulatory amendments to GA Regulations would require IESO to:
    - Separately settle and track amounts received from the SPV/Trust to lower GA (including maintaining variance accounts).
    - Separately settle and track amounts paid back to the SPV/Trust (including maintaining variance accounts).
    - Distributors would continue to collect from consumers and settle with IESO. Generators would continue to be paid by IESO.
  - OEBA-related amendments would allow for OEB oversight. Light touch would focus on the borrowing entity's recovery of administrative costs and its calculation of amounts owing in a period. Heavy touch would give OEB the discretion to determine repayment over time.
  - The certainty of the legislative mechanism to recover the debt and interest, and the extent of discretion of the OEB to alter either amount over time, will have impacts on the availability and cost of capital.
  - Further legal analysis is required as the GA option is developed.

Class B

- **Targeted Lowering ICI Threshold Below 1 MW (to 500kW):** Regulatory amendments (O.Reg. 429/04) will be required to address program details.

Legislative Authority – Considerations (cont'd)

Electricity Support Programs

- **RRRP, OESP and First Nations Rate:** Moving costs to the tax base and creating a First Nations rate will require amendments to OEBA. Regulatory amendments (442/01, 314/15, 275/04) will be required to address program details.

- **Affordability Fund:** In order to implement new affordability fund the Province would need to enter into Transfer Payment Agreements with qualified third parties to administer the fund.

Bending the Future Cost Curve of Electricity

- No specific legislative or regulatory amendments identified. IESO may need to amend market rules. Agency MOUs/MOAs may require amendment.

Communication Plan

Objective:

- Demonstrate Ontario's commitment to lower electricity costs for ratepayers through new rate relief initiatives.

Strategic Approach

- High-profile Premier's announcement and Technical Briefing
- News release, backgrounders, QA's are being prepared.
- A multimedia marketing and advertising campaign is being prepared on the topic of rate mitigation for electricity consumers.

APPENDIX: SEE MINISTRY OF ENERGY'S ELECTRICITY PRICE MITIGATION – APPENDIX

From:	Bruno Amara
To:	Francisco Chinchon; Darren Scanlan; Adam Prokop; Shajee Kathirgamanathan; Salman Qadir; John Kim; Gavin He
Cc:	Arie Jarczyn; Wentao Shi
Subject:	equity Injection Note
Attachments:	BN - GA Equity Injection Structure_Apr12_SIFB_markup2.docx

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To discuss

GA FINANCING – EQUITY INJECTION OVERVIEW

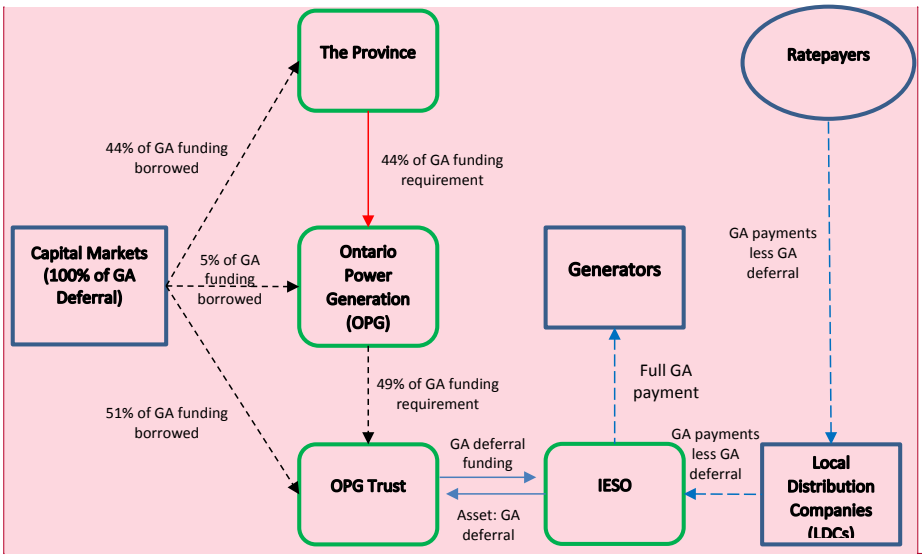
The Province is moving ahead with its support for the Global Adjustment (GA) smoothing mechanism. Under the mechanism, the Province will be providing equity injections to Ontario Power Generation Inc. (OPG), representing 44% of total GA financing requirements. This document provides an overview of the proposed GA financing structure, including the provincial equity injections, and discusses steps that must be undertaken by the Province to implement the equity injections.

GA FINANCING OVERVIEW

The Ministry of Energy, Ministry of Finance and the Ontario Financing Authority (OFA) are coordinating with OPG to implement a Global Adjustment (GA) smoothing mechanism.

Under the current proposal, OPG would develop a Special Purpose Vehicle (SPV) referred to as "OPG Trust" which will use 100% debt financing to purchase regulatory assets from the IESO. These regulatory assets represent the portion of RPP GA expenses deferred to future years. IESO would use the cash from the OPG Trust to make up the shortfall in GA recoveries from ratepayers in order to fully compensate generators.

GA Deferral Process



Commented [FC1]: I would suggest rewording the 44% label going to the Province to "Provincial borrowing" as now somehow suggests that there is a perfect matching between the borrowing and the equity contribution.

OPG Trust would finance 51% of its funding requirements through the capital markets as senior debt with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed through debt OPG issues in its own corporate

capacity, from the capital markets (5%) and through equity injections from the Province (44%). The Province will finance its equity injection through its annual borrowing program - from issuing debt into the capital markets.

OPG Trust would recover all financing and administrative costs from the ratepayers. OPG Trust may also set up a short-term borrowing facility to facilitate any market timings for its share of debt issuances. [NTD: for discussion?]. [OPG's current position is to not pass the interest/dividend to the Province for its equity injection. Although the Province would be entitled to any net income associated with the incremental equity it would mean that it would be out-of-pocket for servicing the cost of debt associated with the equity contribution.]

EQUITY INJECTION PROCESS OVERVIEW

IESO proposes that OPG Trust would purchase the GA deferral asset on a monthly basis. The Province would, therefore, be required to provide monthly equity injections to OPG if it is to match the purchase (different timing would introduce carrying costs to OPG and/or the Province). In return, OPG would issue new shares to the Province. It is proposed that shares would be purchased at the book value of $20 per share. [for discussion]

Commented [FC2]: I don't believe the $20 mark is relevant. The key concept is that equity is being issued at book value.

The proposed process would be as follows:

- OPG Trust would receive notice from the IESO to purchase the asset from IESO.
- The Province in turn would receive notice from OPG for the OFA to provide 44% of the asset for the equity injection. [This asset would be equal to the GA amount being deferred and would not include any financing or administrative costs incurred by OPG or OPG Trust]

Commented [JK3]: I think this is because the financing and administrative costs would be recovered through ratepayers?

- Separately, OPG and OPG Trust would raise debt from the capital markets totaling 56% of the IESO asset value. [Is this proposing that OPG issue debt on its own or through the OEFC as it currently does?]

Commented [DS4]: More for discussion, has OPG (on behalf of the OPG Trust) raised any concerns on borrowing from the markets on a monthly basis?

For the borrowing through OEFC, would just need to ensure approvals are in place in advance as OEFC Board meets quarterly. Shouldn't be an issue though as I think this has been done in the past where OEFC provides a total borrowing limit and OPG can draw down over a period of time.

- There is a 5 business day transaction window from the timing of the notice received by the OFA to payment and settlement with the [or OPG?] IESO.

Decisions and Approvals Required for Province's Equity Financing

The capital contribution (equity injection) to OPG could be carried out in the same way as the capital contribution to Hydro One prior to its initial public offering.

1. The Province, through the Ministry of Energy, would create an "Operating Asset" line for the purchasing of OPG equity. The creation of this line and the annual appropriation for the Operating Asset would require Treasury Board/Management Board of Cabinet approval.

- The Operating Asset could be either a voted item or a statutory item. While the program would be implemented through legislation, it is assumed that the decisions around the capital contributions or equity injection would be made outside of legislation [largely consistent with the current state of legislative drafting]. Based on this assumption, the analysis that follows assumes the Operating Asset would be categorized as a voted item.

2. Depending on timing, the creation of the Operating Asset would either be included in the Province's Estimates (tabled following the release of the Provincial Budget) or, if this window is not met, in Supplementary Estimates.

    - Operating Assets are fiscally neutral, they represent a balance sheet item, but given they are included in the Estimates they are visible to the public, in this case through the Minister of Energy.

3. The Province would need to seek approval, through either Estimates or Supplementary Estimates, of an appropriation for the amount of the Operating Asset (i.e., approval to make a capital contribution up to the approved amount). The Province could seek approval of a placeholder amount of $1,000, or an estimate of the total projected required capital contribution for that fiscal year.

    - Under the assumption that the Operating Asset is categorized as a voted item, any capital contribution required over and above the approved amount would likely require further TB/MBC approvals. Given the magnitude of the initiative, staff have assumed that finding expense offsets is not a viable option.

4. Following the above approvals, the Province would be able to make the capital contribution into OPG and receive OPG shares in return.

    - ~~Note that as with the Hydro One capital contribution, this capital contribution would be reflected on the Province's balance sheet (being and exchange of assets – cash for shares) rather than the statement of operations and would, therefore, not result in a fiscal impact to the Province~~

Commented [JK5]: I believe this has to do with the notion that if the ministry can find offsets, then no need to go back to TB for approval.

Commented [FC6R5]: That is correct.

MECHANISM FOR RETURN OF CAPITAL TO PROVINCE

Under the mechanism, the Province will be providing an equity injection into OPG that would then use that contribution to purchase debt from OPG Trust. The current understanding is that that the proposed share price would be $20 at the time of purchase.

Subject to how the equity injection is structured, the Province would be able to sell back the shares to OPG at the same $20 per share in the future. This, however, would only result in the return of its equity injection and without any return, the Province would be responsible for the carrying costs of the equity injection partially offset, at least from an accounting perspective, by any ROE earned on the incremental equity. The following methods could be utilized to allow the Province receives its equity contribution plus a return related to the cost of financing the equity injections.

Commented [FC7]: Why is this relevant? What is really relevant for the Province that transactions are done at carrying cost. If in the future the BV of OPG is higher than $20 this would cause the Province a loss before consolidation. I would suggest the focus be on transacting at BV.

1. Dividend (Common Shares)

   The Province would incur interest associated with the debt it borrows to finance the 44% equity injection. OPG would expect to have an equal or greater amount related to this 44% interest cost collected from ratepayers through annual cash payments. OPG could elect to provide the interest cost collected back to the Province as a dividend to cover the Province's cost of borrowing for its equity injection [subject to its Board approval].

2. Dividends (Preferred Shares)

   In order to reasonably guarantee a return to the Province, it may be necessary to establish a separate class of preferred shares with a dividend yield associated with the interest cost of the Province's borrowing costs or provide a mechanism for the interest cost to be recovered on a non-cash basis, e.g., through a form of dividend reinvestment plan or through cumulative preferred dividends that are not paid until principal starts being collected from ratepayers [in the event OPG chooses not to return capital during the accumulation of debt phase, which is understood to be OPG's current internal position, TBC].

   A preferred equity structure could potentially impact OPG's credit ratings if rating agencies view the preferred shares as debt rather than equity. In general preferred shares are treated at 50% for rating rations (check).

3. Redemption of Shares at a Premium

   Equity injections can be viewed as a subsidy if the province is not compensated for its risk or cost of financing, that would mean that the Province may need to demonstrate that the expected ROE is higher than the cost of funding these new shares. Under such a scenario, an appropriate pricing or premium on buyback would need to be priced in so that when the Province sells back its shares, it receives a higher price per share than the proposed $20/share book value. OPG staff have signaled to CEFD and CMD staff that their current plan is to not provide the Province with a cash flow, in dividends or

otherwise, for the 44% equity injection until the point in time where the ratepayers start to pay down the deferred GA. [TBC]

LEGISLATION AND TIMING

- The proposed timing for the legislation is May, early June.
- It's unclear how these rates would be effective to consumers if the RPP prices are reset on May 1 and November 1 of every year.
  - Furthermore, the RPP prices are announced by the OEB in mid-April and mid-October annually.
  - Unclear on whether the timing for this implementation mechanism would be sufficient for May 1, RPP prices.
- [TBC] TBS would provide an annual allocation, with a three-year program review cycle.

Electricity Finance Branch, Ontario Financing Authority
April 12, 2017

From:	Bruno Amara
To:	Tony Stillo (MOF)
Cc:	Shajee Kathirgamanathan; Qaizar Hussain (MOF); Michael Marr (MOF); Hugh Finnigan (MOF)
Subject:	for impact analysis
Date:	Friday, March 17, 2017 10:43:17 AM
Attachments:	BN - Ontario Fair Hydro Plan Impacts to OEP.docx

Hi Tony

See attached. Document password.

The material is mainly from the Ministry of Energy's cab sub. As discussed, come back to us if you have further questions we can help with. If you need to discuss with ENE staff, we can help facilitate that.

Thanks
Bruno

Bruno Amara
Sr. Manager, Financial and Regulatory Analysis
Electricity Finance Branch
Corporate and Electricity Finance Division
Ontario Financing Authority

Tel: 416-325-1489
Email: bruno.amara@ofina.on.ca

ECONOMIC IMPACTS OF ONTARIO'S FAIR HYDRO PLAN

The material provided below if sourced largely from the Ministry of Energy's cabinet submission.

FAIR HYDRO PLAN

Customers / Residential

OREC:

- All residential consumers received an "8%" rebate equal to the provincial portion of the HST on their hydro bills starting January 1, 2017, on their bill. (Including Businesses and Farms).

Global Adjustment Smoothing:

- Consumers eligible for reductions under GA smoothing are those eligible under the Regulated Price Plan (RPP). These are primarily residential customers representing about 46% of total GA costs. The RPP also includes farms and low volume customers (up to 50 kW demand or 250,000 kilowatt-hours annually).
- The GA accounts for the difference between contracted and regulated prices paid to generators compared to the hourly market clearing price, as well as the cost of conservation programs. The GA has risen over the past decade as the province's electricity system has decarbonized. The vast majority of GA costs now stem from greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, as well as natural gas plants that were constructed to restore system reliability and replace coal-fired capacity. The majority of the province's electricity generators are under 20-year contracts and some of the assets are expected to continue to be able to provide value to the electricity system beyond their contract lives (i.e., beyond 20-years). Similarly, conservation costs are recovered annually on an 'as incurred basis' through the GA, while conservation initiatives can reasonably be expected to provide benefits to the electricity system over many years.
- Under the GA smoothing plan, the long-term benefit of these assets to the electricity system is recognized and some of the costs recovered in current rates would be deferred for recovery in future rates. GA Smoothing would spread these costs over a longer period and provide immediate ratepayer relief. The result of this GA proposal is that cost to eligible ratepayers would be lowered in the short term, reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by an estimated $26/month.
- A financial structure to implement GA smoothing is proposed that would have no fiscal impact. However, there will be an impact on provincial gross debt over time as various parties including the Province, will need to incur debt to finance the deferral of a portion of current GA costs.

Please see last page for Energy's estimated Annual Debt Schedule.

OESP Expansion:

- Low Income customers receive additional on bill benefits which vary based on income and household size.
    - Will move current funding of the OESP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

Existing OESP Credit Scales

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$30	$30	$34	$38	$42	$50	$50
	$28,001 - $39,000			$30	$34	$38	$42	$50
	$39,001 - $48,000					$30	$34	$38
	$48,001 - $52,000							$30

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$50	$55	$60	$75	$75
	$28,001 - $39,000			$45	$50	$55	$60	$75
	$39,001 - $48,000					$45	$50	$55
	$48,001 - $52,000							$45

Proposed +50% OESP Credit Increase*

Sliding Scale #1		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$45	$45	$51	$57	$63	$75	$75
	$28,001 - $39,000		$40	$45	$51	$57	$63	$75
	$39,001 - $48,000			$35	$40	$45	$51	$57
	$48,001 - $52,000					$35	$40	$45

Sliding Scale #2		Household Size						
		1	2	3	4	5	6	7 +
Income Bracket	< $28,000	$68	$68	$75	$83	$90	$113	$113
	$28,001 - $39,000		$60	$68	$75	$83	$90	$113
	$39,001 - $48,000			$52	$60	$68	$75	$83
	$48,001 - $52,000					$52	$60	$68

Source: Ministry of Energy, Ontario's Fair Hydro Plan, Technical Briefing, March 2, 2017

RRRP Expansion:

- Rural or remote residential customers will receive additional relief on the 'Delivery' portion of their hydro bill. 800,000 customers are expected to benefit.
    - These customers are served by the following distribution companies:
        - Hydro One R1, Hydro One R2, Northern Ontario Wires Inc., Lakeland Parry Sound, Chapleau PUC, Sioux Lookout Hydro, InnPower, Atikokan Hydro and Algoma Power
    - Will move current funding of the RRRP from the ratepayer to the government to provide ***all ratepayers*** with an incremental benefit, with the expanded program funded by the government.

First Nations On-Reserve Delivery Credit:

- Will eliminate the delivery charge for all on-reserve First Nations households and remove the monthly service charge for customers of licensed distributors which charge a bundled rate. Will automatically qualify on-reserve First Nations households (~21,500 customers). Estimated to provide residential customers an average monthly benefit of $85.

Staff Comments:

- Unclear if on-reserve First Nations households (eligible with On-Delivery Credit) will also benefit from OESP Expansion and Affordability Fund.

Establishing a New Affordability Fund:

- Assist electricity customers who need financial assistance to undertake energy efficiency improvements. TB Approved $100 million for 2016-17 (not public).

Staff Comments:

- This fund aims to target those who cannot qualify for current low-income conservation programs. Local Distribution Companies would be tasked with identifying recipients. The fund helps with measures such as energy efficient lighting, appliances, and for electrically heated homes, insulation and weather stripping.
- Assuming this will not appear in any form on the hydro bill but instead a transfer from LDCs (via the fund) to eligible customers.

Industry

- **Expand the Industrial Conservation Initiative:** Enhance competitiveness for small manufacturers. Reduce ICI eligibility to those with monthly peaks of 500 kilowatts, down from the current threshold of 1 megawatt.
    - Targeting eligibility to energy intensive industries with NAICS codes 31-33.

Other

- **Improving Electricity Sector Efficiencies:** IESO's Market Renewal Initiatives are estimated to save the electricity sector (as a total) $200 million per year starting in 2021.

FISCAL COSTS

- **Note:** In estimating economic impacts consideration should be given to the government's commitment to balance the fiscal plan. i.e., the costs of the Ontario Fair Hydro Plan may be assumed to be offset by lower expense elsewhere or higher revenues.

- **Fiscal Costs of the RRRP Program:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Legacy RRRP to Hydro One R2 Customers	-	126	130	133	136
2016 Speech from the Throne Enhancements to R2 Customers	-	117	120	123	127
Proposed Enhancements to Hydro One and Identified LDCs	-	216	222	228	234
TOTAL	**-**	**459**	**472**	**484**	**497**

- **Fiscal Costs of the OESP Program:** Existing OESP credit amounts assume ramp-up of take-up rates for the application-based program.

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
Existing OESP credits	–	118	159	193	222
Incremental Enhance OESP credits by +50%	–	59	80	97	111
Incremental additional OESP categories	–	8	22	35	42
Total	–	**186**	**261**	**325**	**375**

- **Fiscal Costs of the On-Reserve First Nations Delivery Credit:**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
On-Reserve First Nation Delivery Credit	-	20	20	20	20

- **Fiscal Roll Up of the above, including Affordability Fund**

Fiscal Impact ($M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	665	753	829	892

NOTE: As mentioned above for Affordability Fund, TB Approved $100 million for 2016-17 (not public).

BILL FORECASTS

- **Calendar Electricity Prices:**

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**158**	**164**	**167**	**170**	**181**	**178**
Total Bill (excludes HST)	140	145	148	150	160	158
Impact of GA Financing		-26	-26	-26	-32	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		117	120	122	125	127
8% rebate		-9	-10	-10	-10	-10
HST		15	16	16	16	17
Revised Bill (includes HST)	**158**	**123**	**126**	**128**	**131**	**133**
Year-over-Year Change		-22%	2%	2%	2%	2%
Change from Forecast		**-25%**	**-25%**	**-25%**	**-28%**	**-25%**

Commercial & Small Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class B Total (excludes HST)	**160**	**165**	**160**	**162**	**173**	**169**
Class B Revised Total (excludes HST)	**160**	**162**	**157**	**159**	**170**	**166**
Year-over-Year Change		1%	-3%	1%	7%	-2%
Change from Forecast		-2%	-2%	-2%	-2%	-2%

Large Industrial ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Class A Revised Total (excludes HST)	**90**	**88**	**90**	**84**	**92**	**93**
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

Notes: Based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

COST FORECASTS

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Average monthly residential bill w GA financing impact and tax *($/month)*	104	105	112	116	124	136	158	123	126	128	131	133	142	151	161	172	183	195	215	214
Year-over-year change in bill *(%)*	-	1.0	6.7	3.9	6.1	9.8	16.7	-22.1	2.0	2.0	2.0	2.0	6.5	6.5	6.5	6.5	6.5	6.5	10.5	-0.4
Impact of GA financing pre-tax *($/month)*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-26.1	-26.1	-26.2	-32.8	-28.7	-23.9	-19.9	-13.5	-11.8	2.0	4.2	21.8	21.8

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly residential bill w GA financing impact and tax *($/month)*	216	219	221	223	224	221	222	222	223	224	225	226	227	228	229	230	230	231	210
Year-over-year change in bill *(%)*	0.9	1.2	1.0	0.8	0.6	-1.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-9.3
Impact of GA financing pre-tax *($/month)*	21.7	21.7	21.5	21.4	21.3	21.0	20.9	20.8	20.7	20.6	20.5	20.4	20.4	20.3	20.2	20.1	20.0	19.9	0.0

[NTD: Request IESO's revised **February 2017** price forecast]

Debt Schedule for GA Smoothing ($M)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Amount borrowed/paid from/to debt account in present year	-2,501	-2,508	-2,501	-3,075	-2,660	-2,454	-2,038	-1,386	-1,211	203	433	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	0	-128	-263	-404	-582	-748	-912	-1,063	-1,188	-1,311	-1,367	-1,415	-1,373	-1,328	-1,282	-1,233
Amount by which debt account changes in present year	-2,501	-2,636	-2,764	-3,479	-3,242	-3,202	-2,950	-2,448	-2,399	-1,108	-934	826	869	913	960	1,009
Accumulated debt	-2,501	-5,136	-7,900	-11,379	-14,621	-17,823	-20,773	-23,221	-25,620	-26,727	-27,662	-26,836	-25,967	-25,054	-24,094	-23,085

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Amount borrowed/paid from/to debt account in present year	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242	2,242
Interest on accumulated debt	-1,181	-1,127	-1,070	-1,010	-947	-881	-811	-738	-661	-580	-495	-406	-312	-213	-109
Amount by which debt account changes in present year	1,061	1,115	1,172	1,232	1,295	1,361	1,431	1,504	1,581	1,662	1,747	1,836	1,930	2,029	2,132
Accumulated debt	-22,025	-20,910	-19,738	-18,506	-17,212	-15,851	-14,420	-12,916	-11,335	-9,674	-7,927	-6,091	-4,161	-2,132	0

Corporate and Electricity Finance Division

March 16, 2017

From: Bruno Amara
To: John Kim
Subject: white paper
Date: Monday, March 20, 2017 1:37:40 PM
Attachments: Global Adjustment Deferral_White Paper_OPG r1a.pdf

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You may have found this

February 27, 2017

Mr. Serge Imbrogno
Deputy Minister,
Ministry of Energy
4th Floor, Hearst Block
900 Bay Street
Toronto, Ontario
M7A 2E1

Dear Deputy:

Below is a summary of OPG's preliminary views on the implementation of the Province's proposed Global Adjustment Smoothing Account and financing structure. These views are contingent on the proposed terms and conditions that were sent to the Ministry of Energy on February 21, 2017.

Understanding that the finalization of the legal terms, the Trust indentures, financing structure and other detailed terms will take several months and will involve collaboration between legal counsel, input from capital markets, parties involved and other stakeholders, this letter is intended to provide the guideline and framework which could form the foundation of the plan.

Please do not hesitate to contact me if you have any questions regarding this summary.

Sincerely,

Mr. Ken Hartwick
Chief Financial Officer and Senior Vice President, Finance
Ontario Power Generation
W: 416-592-6985
C: 647-544-6985
ken.hartwick@ opg.com

cc. Jeff Lyash, President and CEO, OPG

Background:

The Province has indicated that it will take steps to reduce electricity bills in the near term. It has identified reductions in the Global Adjustment Charge (GAC) charged to electricity customers as a means to achieve its policy goals. The Province is proposing to temporarily reduce the amount of the GAC charged to electricity customers (primarily RPP-eligible customers). The exact quantum and duration of the program is still not known but based on discussions with the Province GAC charges of approximately $2-5B per year for the next 5-10 years would be deferred and collected over future periods commencing after the deferral period. A combination of senior debt and subordinated debt (mainly sourced by additional equity from the shareholder) would be issued to fund the amount deferred. The financing cost of the debt and other costs of running the program would form part of the amounts recovered from customers over the term of the program.

The Province has requested that OPG administer the GAC deferral, because of OPG's participation in the market, regulatory knowledge and the potential ability to consolidate the activity and accounting with OPG. Given the significant amount of financing required for the GAC deferral, OPG has developed a financing structure (depicted below) to:

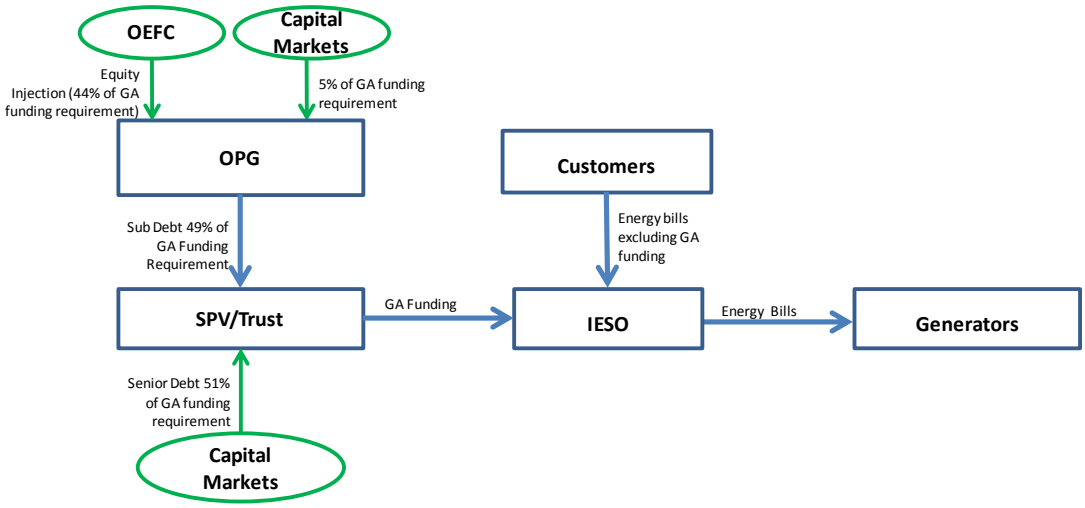
- restrict the risk to OPG;

- maximize the cost-effectiveness of the Trust or the Special Purpose Vehicle ("SPV") financing vehicle; and
- allow for consolidation into OPG financial statements.

The success of this structure is dependent on achieving a number of objectives which are reviewed in the following sections:

A. Ability to Recognize an Asset and Record Revenue
B. Ability to Consolidate the SPV into OPG
C. Ability to Finance
D. External Assessment
E. Risk Summary

All of the percentages shown in the graphic below are indicative and will be highly dependent on the legislation that the Province will enact:



Process:

The IESO will effectively sell the 'right to collect' deferred future revenue from ratepayers (GA Recovery Right asset) to the SPV in return for cash proceeds. In order for the SPV to purchase this asset the SPV will obtain the financing from two key sources: 51% directly from capital markets and 49% as subordinated debt from OPG. OPG will obtain 44% of this financing as an equity injection from the Province and 5% from capital markets.

A. Ability to Recognize an Asset and Record Revenue

Accounting Requirements under International Financial Reporting Standards (IFRS)

1) It is our understanding that the IESO and KPMG have concluded that the sale of this 'right to collect' future revenue (or regulatory asset) is not a financing transaction and will not be recorded as a financial liability. Based on that conclusion, the right to collect will be accounted for as an intangible asset in the SPV.

2) In order to the SPV to record this right as an intangible asset, the right must meet the following conditions:
   - The intangible asset must be separable and arise from a contractual or legal right (i.e. mandated by the Legislation and SPV Indenture Agreement).
   - The SPV must have the control and power to obtain future economic benefits from the intangible asset.
   - The SPV must be able to demonstrate that the intangible asset is purchased at fair value.

3) In order for the SPV to recognize appropriate revenue to offset any ongoing costs, the Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis. This may result in additional amounts to be deferred to achieve the desired customer impact. Payment of revenue to the SPV is also important to service the interest expenses of the debt.

B. Ability to Consolidate the SPV into OPG under IFRS

OPG 'Control' of the SPV - Accounting Requirements

1) In order to meet the accounting definition of 'control', accounting guidance must be considered. There are no bright lines to determine whether OPG has exposure, or rights, to variable returns from its involvement with the SPV, or whether it has the ability to affect the returns of the SPV through its power over the SPV. Rather, all facts and circumstances are considered when assessing whether an entity has control over another entity. Based on the relevant accounting guidance under IFRS, OPG has proposed terms necessary to demonstrate that OPG has control over the SPV. OPG's external auditors, Ernst & Young, has provided their concurrence that based on the information provided to them to date that the following conditions should permit consolidation of the SPV by OPG.

Directive:

1. The SPV must be undertaken by OPG as a business initiative on its merits. A Shareholder Directive is to be limited to direct OPG to investigate the option of establishing a SPV vehicle to administer, finance and operate the Global Adjustment plan. The control, risk and rewards of that SPV will determine its consolidation into OPG as a business enterprise.

SPV:

2. The SPV should not operate in a predetermined way such that OPG does not have decision-making authority over the SPV's ongoing activities after its formation (i.e. should not operate on 'autopilot').
3. OPG must have the ability to appoint and remove the Trustee (or Board of Trustees), with no veto right by the Province. No party shall have the ability to remove OPG from its role and authority in the SPV.
4. The Province cannot have the right to veto OPG's decisions about the relevant activities of the SPV. OPG must have the power over the relevant activities of the SPV and be compensated. The relevant activities of the SPV include (but are not limited to) the evaluation and decisions on financing alternatives, duration, and the strategy to minimize financing costs. OPG must have the power to establish operating and capital budgets of the SPV.
5. OPG must have the power to determine or change operating and financing policies of the SPV, which will affect the variability of risks and returns.
6. The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
    - The SPV
    - Any of OPG's investments in the most subordinated debt of the Trust
7. OPG must own greater than 50% of the most subordinated debt and targeted to be no less than 5%[1] of the total debt of the SPV. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources. A quantitative analysis should be performed at a later date to corroborate the appropriateness of the 5% threshold to support that the 5% subordinated debt investment is sufficient to absorb most of the expected variability in the SPV.
8. OPG must have the ability to earn variable returns by exercising its authority, which shall be accomplished as follows:

[1] While the rest of the letter refers to a 10% investment in the most junior subordinated debt with OPG owning 5%, it should be noted that OPG should own more than 50% of the most subordinate debt. For simplicity, the degree to which OPG's ownership beyond 50% is not shown in this letter.

a. The cash flow from the restructured asset shall include interest determined based on a relevant benchmark that is appropriate relative to the restructured asset, plus an appropriate margin consistent with the relevant market and other risks
b. OPG shall have the authority to determine the financing strategy, which will vary the financing costs with the objective of enabling the SPV to achieve a more favourable return compared to the return from the restructured asset
c. The SPV shall establish classes of liabilities (senior, subordinated and the most subordinated). The classes would allow the SPV to delineate financing of lower risk investment and investment that would bear higher residual risk. The delineation would limit OPG's self-funded investment to a reasonable level in order to allow OPG to remain a self-sustaining entity.
d. OPG shall, through its ownership of the most subordinated liability, be able to capture and retain the pricing difference between cost of financing and benchmark for interest on the restructured asset, or any residual risk of restructured asset. The targeted return of the subordinated liability should be reflective of the underlying risks and compensate holders for active management that would be required.
e. OPG should participate in the detailed design of the above and the SPV documentation to ensure that it has substantive power and variability, which will allow OPG's Board of Directors to evaluate the opportunity as a business initiative instead of through a shareholder directive.

Nothwithstanding the above, under certain Defined Forced Majeure for emergency events (e.g. unlikely credit market event or disruption where it is not possible to borrow from the market at a reasonable rate), the OEFC may provide bridge financing beyond the designated percentage for a defined period. The relevant terms should ensure that this temporary measure does not detract from the rights of OPG to direct all of the relevant activities of the SPV. Additionally, OPG should not be protected from risk of loss by the OEFC with respect to its subordinated investment, nor should it lose its right to derive the residual returns should such bridge financing be required.

Legislation

9. The Legislation must require interest, carrying and administrative costs to be paid to the SPV on a monthly basis, so that the SPV is able to recognize appropriate revenue to offset any ongoing costs.
10. The Legislation must dictate the manner in which the restructured asset would be determined, collected, and the period of collection, so that the determination of the restructured asset will not be subject to the Province's decisions on an ongoing basis, but determined based on a formula. Alternatively, the Legislation may allow for an adjustment to the pre-determined deferral formula based on specific parameters that would limit the adjustment to the restructured asset. Adjustments beyond the specific parameters would require approval by the Board of Trustees.
11. The Legislation must be written to avoid legal or constitutional challenges and be irrevocable to reduce the cost of borrowing and with a specific formula which determines the deferral amount. As irrevocability would be difficult under Canadian law one mitigation would be to provide a Provincial guarantee which only applies with cancellation or amendment of the legislation.
12. The spirit of the above terms should be reflected in the SPV Indenture Agreement as well as Legislation, wherever possible.

2) The Trust is expected to be financed as follows:
   - 51% senior secured debt from external markets
   - 39% senior subordinated debt from OPG (via Province equity injection into OPG)

- 10% junior subordinated debt from OPG (5% from external markets and 5% from Province equity injection into OPG).

When assessing control, an investor shall consider the nature of its relationship with other parties and whether those parties are acting on the investor's behalf (i.e. they are 'de facto agents'). If OPG is assessed to be a 'de facto agent' of the Province, it will compromise the ability for OPG to consolidate the Trust. The split above is to meet the following conditions to ensure that OPG is not considered a 'de facto agent' of the Province:

- The Province or its agencies must not directly or indirectly fund (through debt or equity) more than 50% of the following:
  - The Trust
  - Any of OPG's investments in the most subordinated debt of the Trust
- OPG must own greater than 50% of the most subordinated debt and targeted to own no less than 5% of the total debt of the Trust. Such ownership must be financed entirely by OPG through operating cash flows or external debt, without assistance from Provincial sources.

3) The Province will need to conclude on whether OPG still meets the definition of a Government Business Enterprise as defined under Public Sector Accounting Board standards in order to obtain the preferred consolidation treatment after the transaction. We also recommend that the Province to undertake the analysis deemed necessary to confirm the accounting treatment in its consolidated Public Accounts, including if the recognition of the intangible asset would result in an offsetting liability in the Public Accounts.

C. Ability to Finance

Property Right or Right to Collect
Legislative Requirements for Financing
The GA Recovery Right must be structured to encompass the following elements:

- Right to recover from and bill Ontario electricity customers for (1) the principal amount of GA that is being deferred, (2) all interest and other financing costs incurred in respect of the deferral of the GA, (3) all fees, expenses and other administrative costs associated with such financing;
- Repayment/amortization schedule as agreed by the IESO and any purchaser of such GA Recovery Right (or pursuant to a pre-defined schedule/formula that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis);
- Repayment/amortization schedule must include a true up mechanism to ensure all costs associated with the deferral can be recovered from customers;
- IESO may dispose of the GA Recovery Right, provided that any such disposition shall be a true sale and absolute transfer to the purchaser of the IESO's right, title and interest in and to the GA Recovery Right;
- Purchaser will have the right to require the IESO (or any successor) to collect the principal amount of GA Recovery Right, together with interest, financing and administration costs, on the agreed repayment/amortization schedule;
- Right must be irrevocable and, if amended by future governments, debt holders have the right of action against the government to recover the amount outstanding including interest, fees, expenses and any damages resulting from the amendment;
- GA Recovery Right will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity; and
- Make certain amendments to the Electricity Act to allow OPG to implement the SPV financing structure (e.g. allowing OPG to create subsidiaries and holding companies, and to have a beneficial interest in the SPV, etc). This would provide flexibility to accommodate possible variations to the financing structure that may be desirable over time.

Detailed legislative requirements are specified in the attachments as follows:

Attachment 1 Legislative requirements to allow deferral of global adjustment amounts to be financeable

Attachment 2 Statutory amendments

The proposed financing structure for the SPV is:

	Risk Profile	Source	% of Total Funding Requirements
Tranche A Senior Debt	The least risky	Capital Markets	51%
Tranche B Sub Debt	In between A&C	OPG via OEFC	39%
Tranche C Sub Debt)	The most risky	OPG via OEFC	5%
		OPG via Capital Markets	5%

SPV structure is used to accomplish the following:

- SPV holds right to charge customers for the benefit of debt holders;
- Allows the financing vehicle to be ring-fenced from OPG as an SPV structure is set up as generally single purpose entities with no other operations that could add risk to the SPV, dilute debt holder rights, allow parties from other operations to claim rights to the future recovery from customers or allow these other parties to initiate bankruptcy proceedings;
- Enables SPV to potentially get a higher credit rating than OPG;
- Supports consolidation with OPG provided accounting requirements are satisfied;

This approach supports a number of objectives of the GA Recovery Right:

- 51% external senior debt supports separation of the SPV from the Province
- 5% junior subordinated debt establishes OPG's "at risk" equity which supports separation of the SPV from the Province
- Subordinated debt provides flexibility to the financing structure and additional credit support to external debt holders
- Subordinated debt sourced from OPG (mainly funded by equity injection from the Province) minimizes impact on OPG credit metrics reducing risk of an OPG rating downgrade that could result in the SPV being consolidated directly with the Province as the SPV would be considered an arm of the Province.

Recent transactions used as precedents are:

Duke Energy Florida Project Finance LLC
June 2016
5 series of bonds totalling USD$1.3B
Weighted average life from 2 to 19 years with interest rates from 1.2% to 3.1%
Credit rating AAA

Utility Debt Securitization Authority
Sponsored by Long Island Power Authority
March 2016
Amount issued USD$0.6B
Weighted average life of 12 years and weighted average yield of 2.7%

August 2016
Amount issued USD$0.5B
Weighted average life of 7 years and weighted average yield of 2.0%

Credit rating AAA

Cumulative outstanding (including previous issuances): USD$4.2B

D. External Assessment

Shakerhill Partners, an external advisor, identified the following items in an assessment of the structure and financeability of the structure:

- The structure is financeable however there are a number of significant risks to the structure:
  - Canadian and Ontario law does not provide the same protection to property right as exists in the US federal and state constitutions to limit the ability of governments to adversely impair contracts to the detriment of the holder;
  - Legislation could mitigate some of the risks – deferred recovery asset to be "uncapped", regular semi-annual true up to ensure recovery, Province provides sufficient committed liquidity to the IESO so that temporary shortfall in recovery does not affect payments to SPV, term of the deferral recovery substantially exceeds the longest maturity of debt of the SPV and that true-up mechanism take account of potential for currency, interest rate and duration mis-match between the debt of the SPV and the recovery mechanism;
  - Size of the program may be too large for Canadian securitization market requiring access to the US securitization market;
- Final maturity of debt should not exceed 30 years from inception of the program
- True up mechanism should be designed such that the forecast of recovery is less than 10% of the customer bill under downside scenarios to limit growth of the deferral balance as a higher portion of the customer bill increases the political risk to debt holders which could result in a lower credit rating and potential impact on financeability
- Securitized debt products are specialized and price at a premium to other fixed rate instruments however a successful program supported by a strong credit rating this premium could shrink over time to a minor spread over Provincial debt
- OPG's credit rating should be maintained provided sufficient equity is injected to maintain credit metrics
- While the structure is not expected to impact the Province there are risks that the program could negatively impact the rating agencies view of the Province's financial management.

E. Risk Summary

i. Consolidation

- Elements of the proposed structure were established to support consolidation of the SPV into OPG. These items may not be sufficient to establish OPG as risk owner of the SPV and the SPV may need to be consolidated directly with the Province.

ii. Financeability

- The legislation establishing the structure and the property right for recovering the financing and associated costs may not be adequate for financing purposes resulting in more expensive financing or an inability to obtain the required external financing.

iii. Cost of Financing

- Future governments may enact legislation that changes the right of the SPV to recover amounts from customers.
- The right to recover amounts from future customers must be irrevocable and subject to full recovery from the government in the event that future governments reduce or eliminate the recovery. A legal structure that is weaker than the precedent US transactions increases the risk to debt holders and the cost of financing.
- Interest rates on bonds in the securitization market are higher than equivalent rated bonds. Rate for a AAA securitization credit is about 50 bps higher than GOC (rated AAA) for a 5 year term. This difference is attributable to the specialized structure of the bond, smaller investor pool for this bond, smaller size of the market and higher perceived risks of the bond.
- Any regulator involvement must not be seen to modify any terms of debt issued or the property right securing the debt as this would increase risk to debt holders.

- It may not be possible to issue debt to match the terms of the deferred asset so shorter term debt would be used which raises risk to re-finance the maturing debt as the market may no longer be interested in this product. As well, underlying reference interest rates may be higher and the market may require a higher spread to invest in this product.
- With the GA Recovery Right program continuing for 10 years, debt issued over this period is subject to changes in both the underlying reference interest rates and appetite of the market for this product.

iv. OPG Credit Rating

- Minimizing the impact of significant additional debt on OPG's credit rating is dependent on higher EBITDA arising from earned income on the GA Recovery Right in excess of external debt. Ability of the SPV to record revenue reflecting the growth in asset value.
- Potential OPG credit rating downgrade if legislative structure is not adequate to support long term recoverability, inability to record revenue from growth in asset value or agencies view equity injection as debt.
- OPG credit rating downgrade could result in loss of GBE status or result in SPV being consolidated directly with the Province.

Attachment 1

LEGISLATIVE REQUIREMENTS TO ALLOW DEFERRAL OF GLOBAL ADJUSTMENT AMOUNTS TO BE FINANCEABLE

The IESO currently has a right to collect GA monthly from ratepayers through provisions in the *Electricity Act, 1998*. It is proposed that collection of a certain portion of the monthly GA be deferred for collection in the future, and that the right to recover the deferred GA from ratepayers be used as a basis for structured financing/securitization.

The current proposal is for a trust to be created as a financing vehicle (the "**Trust**") in connection the deferred GA. The Trust will finance the deferral of the GA by purchasing the right to recover such deferred GA from the IESO for the principal amount of the GA being deferred. For example, if the amount of GA that is being deferred is $200 million in a given month, the Trust will purchase from the IESO the right to future recovery of the deferred GA and the associated financing costs (including interest and transaction costs) for $200 million in cash.

The Trust is expected to finance these purchases from the IESO through a combination of senior secured financing raised in the capital markets and subordinated financing from OPG (the funding for which will mostly be from equity injections from the OEFC/Province).

For accounting purposes, OPG will need to have the ability to direct the activities of the Trust, through a services agreement and/or through the Trust's constating document.

Based on securitized financing raised by utilities in the US (backed by utility cost recovery orders) and the current regulatory framework in Ontario, the legislation in Ontario would need to be amended to provide the following, at a minimum:

1. The IESO will be empowered to create an asset (the "**Regulatory Asset**") consisting of all right, title and interest in and to:

   (a) right to recover from and bill Ontario electricity ratepayers for:

   (i) the principal amount of GA that is being deferred for collection;
   (ii) all interest and other financing costs incurred in respect of the deferral of the GA (whether through senior debt raised in the public markets or subordinated debt raised from OPG or others); and
   (iii) (subject to the comments in paragraph 5 below in respect of OPG's internal administrative costs only) all fees, expenses and other administrative costs associated with such financing, including up-front and ongoing financing costs and any indemnity payments;

all on such repayment/amortization schedule as agreed by the IESO and any purchaser of such right (or pursuant to a pre-defined schedule/formula in the legislation that covers all of the purchaser's principal, interest and ongoing financing costs on a monthly basis); and

(b) all revenues, collections, claims, rights to payments, money or proceeds arising from the rights and interests set out in paragraph (a) above, regardless of whether such revenues, collections, claims, rights to payments, money or proceeds are imposed, billed, received, collected or maintained together with or commingled with other revenues, collections, rights to payments, payments, money or proceeds.

2. The IESO may dispose of the Regulatory Assets created from time to time on such terms as the IESO determines in accordance with the terms of directives to be issued to the IESO from time to time by the Minister, provided that any such disposition shall be a true sale and absolute transfer of the IESO's right, title and interest in and to a Regulatory Asset to the purchaser of the Regulatory Asset.

3. The Regulatory Assets will not be subject to any set-off, counterclaim or other defence by the IESO or any successor or affiliated entity thereof.

4. The legislation will need to recognize the Regulatory Assets as amounts that may be recovered by the IESO (e.g. it could be designated as a "GA Deferral" and would be included in the amounts collectible by the IESO through the GA collection mechanism, and would include interest and financing costs).

5. The purchaser of the Regulatory Asset will have the right to require the IESO (or any successor) to collect the principal amount of GA deferred, together with interest, financing and administration costs, on the agreed repayment/amortization schedule. **[NTD: In the LIPA securitization rate order, if the entity that is authorized to collect rates to service the bonds ends up defaulting, there is the ability to request a court to order "sequestration" and payments of amounts owing to the owner of the Regulatory Asset. Consider whether to include a similar right here. Alternatively, consider whether a security interest over the moneys collected by the IESO could be provided to the purchaser.]**

OEB would be provided with oversight over the internal administrative costs collected by the Financing Trust. This could be accomplished by (a) providing the purchaser of the Regulatory Asset with the right to require

the IESO or a successor to collect only the principal amount of GA together with interest and financing costs and third party fees and expenses, and (b) requiring the IESO to collect amounts through the global adjustment and make payments to the purchaser of the Regulatory Asset with respect to the internal administrative costs incurred by the purchaser in connection with the purchase and management of the Regulatory Asset and the Financing Trust, in accordance with the order of the OEB then in effect. Under this mechanism, the OEB would be required to review the purchaser's internal administrative costs through a streamlined process and issue such orders in accordance with rules to be prescribed under a new regulation under the OEB Act, which would clearly limit the OEB's scope of review and could establish the basis for the purchaser to receive an appropriate fee for its services.

6. In the event that any action is taken or permitted by the Province or any regulatory authority that limits, alters, or impairs the value of a Regulatory Asset or reduces the ability of the IESO or the purchaser of the Regulatory Asset to collect or recover the costs associated therewith, the owner of the Regulatory Asset and the holders of any bonds or other securities issued to finance the purchase of the Regulatory Asset, will have a right of action against the Province for any damages suffered as a result of such amendment.

Attachment 2

STATUTORY AMENDMENTS

The following is preliminary and is based on our current understanding of the proposed structure and objectives. For example, we have assumed that the structure will not entail the insertion of a new Holdco between OPG and the Province. As these aspects are refined, some of the suggested amendments described below may not be needed and other aspects that we are not aware of may need to be considered. Accordingly, these suggested amendments are provided for discussion purposes and are subject to change. We would welcome the opportunity to work with OPG and the Ministry on refining the scope and substance of required legislative and regulatory amendments.

A. Amendments to Implement Structure

Certain *Electricity Act, 1998* amendments would be needed to implement the anticipated structure (which we understand, as noted above, would not include a Holdco), as follows:

- **Section 53.1(1):** Amend to permit owning and operating generation facilities through subsidiaries (not only directly through OPG). In addition, amend to permit OPG to administer, manage, loan moneys to and have a beneficial interest in, if applicable, Financing Trust.

- **Section 53.2:** Amend to permit the Minister to acquire, hold, dispose of or otherwise deal with securities or debt obligations of, or any other interest in, OPG or any subsidiaries. This is to accommodate possible variations to the financing structure that may be desirable over time.

- **Section 53.■ (new):** New statutory section to permit the Minister to enter into arrangements relating to an exercise of powers under 53.2.

- **Section 53.■ (new)**: New statutory section providing that creditors of Financing Trust have no recourse to the assets of OPG or any of its subsidiaries (other than Financing Trust, if applicable). In addition, consideration should be given as to whether the Act should be amended so that the Financing Trust cannot be wound up or liquidated.

B. Miscellaneous Corporate Items to Address

- **OPG Articles:** Amend the OPG's articles to remove the private company restrictions.

- **MOA with Province:** Consider whether any amendments to OPG's MOA with the Province are required to contemplate the Financing Trust.

C. Amendments Under Electricity Act to Implement GA Smoothing

Based on our understanding that the global adjustment smoothing mechanism is intended to benefit residential and small business customers only and that the Minister will be responsible for determining how much global adjustment smoothing is to be applied in a given month, if any, amendments to the *Electricity Act*, *1998* and Ontario Regulation 429/04 (Adjustments Under Section 25.33 of the Act) would be needed to implement the mechanism, as follows:

(i) Electricity Act:

- **Section ■ (New):** Establish a new power for the Minister to make directives to the IESO in relation to the global adjustment smoothing mechanism and, particularly, for purposes of establishing global adjustment smoothing amounts from time to time (expected to be monthly). To the extent possible, the directive power should be drafted so as to limit the ability for a future Minister to require the IESO to do anything that would materially and adversely affect the Financing Trust or its lenders. **[NTD: While our understanding is that the Minister would direct this, we note from other materials we have seen that OPG may instead be recommending a formula approach. It is not clear what the formula would look like, where it would be set out or how it would be applied and by whom]**

- **Paragraph 25.33(1):** This section says that IESO shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of market participants reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require IESO to ensure that, over time, payments by prescribed classes of market participants also reflect amounts paid to Financing Trust. **[NTD: Not certain this is needed if only to benefit residential and small business consumers, who are not market participants. May be needed in reference to payments from distributors and retailers]**

- **Paragraph 25.33(2):** This section says that distributors and retailers shall make adjustments in accordance with the regulations to ensure that, over time, payments by prescribed classes of consumers reflect amounts paid to OPG, OEFC and distributors, as well as amounts paid to entities with whom IESO has a procurement contract. Add new subsection (c) so as to require distributors and retailers to ensure that, over time, payments by prescribed classes of consumers also reflect amounts paid to Financing Trust.

- **Note**: As described below, the regulation will need to include new requirements for the IESO to record the global adjustment smoothing amounts in one or more variance accounts and to use those amounts to offset amounts otherwise recorded in the variance accounts under Section 25.33(3) of the Act. For context, we note:

    - Section 25.33(3) says that adjustments under (1) or (2) relating to electricity consumed by consumers whose rates are determined by

the OEB under s. 79.16 of the OEB Act (i.e. RPP Customers) shall instead be made in accordance with the regulations to one or more variance accounts established and maintained by the IESO.

- Section 25.33(4) says IESO, distributors and retailers shall make and receive such payments, set-offs and credits as may be required or permitted by the regulations with respect to consumers described in (3), i.e. RPP Customers.

- Section 25.33(5) says that IESO shall establish and maintain such variance accounts as may be needed to record all amounts payable or receivable by it under 25.33.

(ii) O. Reg. 429/04 (Adjustments Under Section 25.33 of the Act):

- **Section 1(1):** Consider adding definitions for "Financing Trust" and "global adjustment smoothing amount" or such other terms as may be preferred.

- **Section 1.2(1) (New):** Add section providing that, for the purposes of this Regulation, the global adjustment smoothing amount for a month is the amount determined by the IESO in accordance with a directive from the Minister under section ■ of the Electricity Act in respect of the month. **[NTD: See above note re use of Minister directives]**

- **Section 1.2(2) (New):** Consider adding a section providing that the IESO shall publish the global adjustment smoothing amount for a month by no later than the 10th business day of the following month [to align with general publication requirements for global adjustment under s. 1.1(2)].

- **Section 10(1):** Amend formula for calculating Class B GA rate by subtracting the global adjustment smoothing amount for a month from "M", which is the total amount of the global adjustment for the month. The global adjustment smoothing amount could be designated as "X", such that the formula would be (M-X-N)/(P-Q). Define "X" as the global adjustment smoothing amount for the month as determined by the IESO in accordance with the Minister's directive under section ■ of the Electricity Act for the month. **[NTD: See above note re use of Minister directives]**

- **Section 10.1 (New):** Add new section to deal with adjustments under subsection 25.33(3) of the Act, i.e. in respect of RPP consumers. This section should require the IESO to establish, within the variance account(s) it maintains pursuant to subsection 25.33(3) of the Act, one or more subaccounts in which it shall record the global adjustment smoothing amounts applicable to the classes of consumers described in subsection 25.33(3) of the Act. This section must also specify that the IESO shall apply the amounts recorded in the subaccounts against the balances in the variance accounts for purposes of section 79.16(3) of the OEB Act.

  - **Note:** This is a key aspect because, when the OEB determines RPP rates, it must take into account the balances in the variance accounts established by the IESO under s. 25.33 of the Electricity Act and make adjustments with a view to eliminating the balances within 12 months. This proposed new section 10.1 causes the IESO to reduce (in the near term) the variance account balances by the global adjustment smoothing amounts, as provided by Financing Trust, thereby enabling the OEB to determine RPP rates that, despite being lower for RPP consumers in the near term, still eliminate the relevant variance account balances within 12 months.

- **Paragraph 11(2)2.ii:** Amend the formula for calculating the allocation of global adjustment for a month to a licensed distributor that is a market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x (R+S-T)]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 11(2)3:** Amend the formula for calculating the allocation of global adjustment for a month to each Class B market participant by subtracting the global adjustment smoothing amount for a month from "M", which has the same meaning as under section 10(1). The global adjustment smoothing amount could be designated as "X", such that the formula would be [(M-X-N) x U]/(P-Q). Define "X" as suggested under section 10(1).

- **Paragraph 16(7)4:** Consider amending the description of "Global Adjustment" that is required to be included on certain invoices so as to inform consumers that their portion of the global adjustment for the month (i) may have been reduced by the application of a global adjustment smoothing amount from the Financing Trust, or (ii) may include amounts payable to the Financing Trust in respect of global adjustment smoothing amounts previously applied.

- **Section 20(1):** This section establishes an obligation for the Ontario Electricity Financial Corporation and every licensed distributor that is a market participant to give the IESO such information as the IESO may require for the purposes of the Regulation in the form specified by the IESO and before the expiry of the period specified by the IESO. Consider amending to extend this obligation to the Financing Trust.

- **Section 20(6):** This section provides that on request by the OEB, the IESO, a licensed distributor, an embedded generator, a retailer or the OEFC shall give the OEB such information relating to this Regulation as the OEB may require, in the form and within the period specified by the OEB. Consider amending to extend this obligation to the Financing Trust.

D. Amendments Under OEB Act to Implement Cost Recovery for Financing Trust

Amendments to the *Ontario Energy Board Act*, including amendments to O. Reg. 95/05 (Classes of Consumers and Determination of Rates) and the introduction of a new regulation, would be needed to implement a cost recovery process for the Financing Trust in relation to the global adjustment smoothing mechanism, potentially with limited OEB oversight, as follows:

(i) Ontario Energy Board Act:

- **Section 78(3.3):** This provision establishes an obligation for the OEB, when determining rates for the retailing of electricity, to take into account balances in variance accounts established under section 25.33 of the Electricity Act and to make adjustments "with a view to eliminating those balances within 12 months or such shorter time periods as the Minister may direct." Consider whether any amendments are needed, and confirm this works with the framework being proposed.

- **Section 78.7 (New):** We understand that the Province may want the OEB to have an oversight role. One possible approach would be to establish a new statutory section establishing that the IESO shall make payments to the Financing Trust with respect to the internal administrative costs incurred by the Financing Trust in connection with the purchase and management of the Regulatory Asset and the Financing Trust. Such payments by the IESO would need to be made in accordance with the order of the OEB then in effect, which orders shall be made by the OEB in accordance with rules prescribed under a new regulation.

    - The new regulation would need to be clear that the OEB does not have jurisdiction to consider the principal amount or any interest, financing costs, third party fees or expenses. Rather, OEB's role would be limited to considering the internal administrative costs of the Financing Trust and ensuring the Financing Trust receives an appropriate fee for its services, all of which would be recovered by the Financing Trust from the IESO, which would collect those amounts in the global adjustment. Note that, if this approach is accepted, the IESO and distributors and retailers would need the authority to collect such amounts as part of the GA and IESO would need the authority to pay such amounts to the Financing Trust. As such, additional amendments would be needed under O. Reg. 429/04.

- **Note:** Section 79.16 of the OEB Act does not require changes, but the significance of this provision should be understood.

    - Section 79.16 gives the OEB responsibility for determining electricity commodity prices for eligible consumers. Eligibility is determined under Reg. 95/05 (Classes of Consumers and Determination of Rates), which is also known as the Regulated Price Plan (RPP) Regulation.
    - Section 4(2) of the RPP Regulation defines RPP-eligible consumers as low volume consumers (i.e. those who annually use less than 150,000 kWh

or such other amount as prescribed), consumers with demand of 50 kW or less, residential consumers that have accounts with distributors, consumers who annually use 150,000 to 250,000 kW of electricity, and consumers who have accounts with distributors if in the farming business.

- Paragraph 6(1)3 of the RPP Regulation provides that "In determining the rates (for RPP-eligible consumers), the Board shall forecast the cost of electricity to be consumed by the consumers to whom the rates apply, taking into consideration adjustments required under section 25.33 of the *Electricity Act, 1998* and shall ensure that the rates reflect those costs."
- The Ontario Energy Board has developed a Regulated Price Plan Manual (revised February 16, 2016) to describe the processes and methodologies it uses for determining electricity commodity prices that are charged to RPP consumers pursuant to Section 79.16 of the OEB Act and paragraph 6(1)3 of the RPP Regulation.

(ii) O. Reg. 95/05 (Classes of Consumers and Determination of Rates)

- **Paragraph 6(1)3:** Amend so as to require the Board, when forecasting the cost of electricity to be consumed by the consumers to whom the rates apply, to take into consideration not only the adjustments required under section 25.33 of the Electricity Act but also the application or prior application of global adjustment smoothing amounts determined by the IESO in accordance with Minister directives under section ■ of the Electricity Act, and to ensure that the RPP rates reflect those amounts. **[NTD: See above note re use of Minister directives]**

(iii) New Regulation (Payments to the Financing Trust)

- If the OEB is to be given the role of reviewing and approving the recovery of OPG's internal administrative costs for the Financing Trust under the potential section 78.7 (see above), then this regulation should describe the process and criteria pursuant through which the OEB would determine the amounts that the IESO would be required to collect through the global adjustment, in accordance with section 25.33 of the Electricity Act, and pay to the Financing Trust in respect of the provision of global adjustment smoothing amounts. This part of the regulation should establish:

    - any reporting requirements from the Financing Trust and/or the IESO to the OEB in connection with the global adjustment smoothing mechanism;
    - the frequency of the OEB making determinations under this part of the regulation;
    - the process through which the OEB shall make these determinations, which should be a streamlined administrative process rather than a public hearing process or, if a hearing is needed, then the scope of the proceeding should be clearly and narrowly constrained so as to deter intervenor involvement, lengthy proceedings and reduce/eliminate risk to recovery by Financing Trust;

- the basis for the OEB's determinations as to the payments that shall be made to the Financing Trust, which should specify that:
  - the Financing Trust shall recover its prudently incurred internal administrative costs on a forecast basis each year;
  - the Financing Trust shall receive an appropriate fee each year (with some guidance as to what would be appropriate); and
  - the approved payment amounts shall be collected by the IESO through the global adjustment and paid to the Financing Trust in accordance with the order of the OEB then in effect. Note that O. Reg. 429/04 would likely need amendments to permit IESO (and distributors and retailers) to collect these amounts through the global adjustment.