Treasury Board / Management Board of Cabinet
Request Assessment Note

Ministry:	Energy
Meeting Date:	May 9, 2017
Agenda Class:	Major Item
Last reviewed by: TB/MBC – March 1, 2017	**Tracking to: Fast Track** LRC at Cabinet – May 10, 2017

Submission Title:	Report back on Ontario Fair Hydro Plan – Implementation Update

I. Decision Before the Board

Receive a report back on Ontario Fair Hydro Plan implementation, supporting implementation decisions and recommending the proposed Ontario Fair Hydro Plan Act to proceed to LRC and Cabinet for approval.

II. Recommendations:

• Receive a report back on Ontario Fair Hydro Plan implementation progress	*Receive*
• Proposed legislation: o Note key aspects of proposed legislation o Recommend proposed legislation o Direct the Ministry to return to TB/MBC with regulations supporting implementation prior to going to LRC.	*Recommend*
• Note outstanding report back requirements	*Note*
• Approve up to $3.5M funding for media buy procurement, to be followed later by a transfer from the Bulk Media program to fully recover costs for the public education campaign.	*Approve*

III. Financial Summary

$ Millions		**2017-18**	**2018-19**	**2019-20**
Initiative cost requested		0.0	0.0	0.0
Initiative cost recommended		0.0	0.0	0.0
Recommended program base:	Affordability Fund	0.0	0.0	0.0
	Global Adjustment Refinancing*^	0.0	0.0	0.0
	Electricity social programs*	499.0	753.0	829.0
	Ontario Rebate for Electricity Consumers	939.0	882.0	882.0
Offset Recommended		0.0	0.0	0.0
Total Potential Fiscal Impact		0.0	0.0	0.0

* Subject to enacting proposed Ontario Fair Hydro Plan legislation.
^ As part of Global Adjustment Refinancing, an Operating Asset for $1.1B for OPG Share Purchase was included as part of 2017 Budget, linked to proposed legislation

IV. Key Comments and Considerations

In March 2017 the Ministry received TB/MBC approval for additional rate mitigation actions that support a 25% electricity bill reduction (including the 8% reduction announced in 2016 for typical household in 2017). The Ontario Fair Hydro Plan (OFHP) was announced on March 2, 2017.

This submission deals with several elements of the OFHP:

- Refinancing Portion of Global Adjustment (GA) to provide immediate relief in the short-term for RPP eligible ratepayers (based on a planned non-fiscal impact approach over government funding).
- Expanding and enhancing ratepayer funded electricity social programs and shifting them to being government funded (OESP, RRRP), along with a new government funded On-Reserve First Nations Delivery Credit.
- Expansion of Industrial Conservation Initiative (ICI).
- Media buy approval for OFHP

The Ministry was directed to report back to the Board with proposed legislation supporting OFHP implementation, including the following specific direction regarding a non-fiscal mechanism (approach) to refinancing a portion of Global Adjustment costs (Appendix C provides the March 1, 2017 minute):

- Formal accounting opinions from OPG and IESO auditors.
- Completed legal, financing and accounting risk assessments. Assessments to include, but not limited to proposed legislation, technical aspects such as Eurig analysis, and risk to borrowing (in discussion with the OFA).
- Report on the multi-year profile of GA smoothing, identifying specific assumptions.
- Report on sensitivity analysis completed as assumptions vary, such as under different recovery rates and periods.
- Overall risk mitigation plan addressing completed legal, accounting and financing risk assessments.

Direction was also given to report back with final program details, regulations, sensitivity analysis of financial models, and performance metrics for electricity support programs.

OFHP Implementation Update:

The ministry's current submission does not address all required report back elements. The proposed legislation would establish the legislative framework but key details necessary to assess fiscal and legal risks are outstanding, including regulations, commercial agreements, sensitivity analysis etc. (Ministry is targeting regulations by June 2017 and commercial agreements subsequently).

Appendix D provides an overview of the Ministry's implementation update.

Financial Implications

Electricity Social Programs:

March 1, 2017 TB/MBC approvals supporting OFHP included full year projected costs. The 2017 Ontario Budget included refined projected costs shifting expanded/enhanced electricity social programs from ratepayers to being government funded starting in 2017-18, lowering the total amount from $665M to $499M to reflect rollout timing not full year costs. The table below shows expense amounts currently in the PRRT multi-year fiscal plan related to these support programs for the most vulnerable consumers.

Government Funded Social Programs ($million)	2017-18	2018-19	2019-20	2020-22
Rural or Remote Rate Protection (RRRP)	344	472	484	497
Ontario Electricity Support Program	140	261	325	375
On-Reserve First Nations Delivery Credit	15	20	20	20
Total	**499**	**753**	**829**	**892**

TBS Staff Comments:
The energy sector is complex and a number of key assumptions used as inputs into forecasting model are variables/forecasts themselves, resulting in a high inherent risk that cost estimates are inaccurate, and factors which can fluctuate from year to year. Also, fiscal projection is subject to knowledge of future distribution costs and dependent on submission of cost of service applications by Hydro One and LDCs. To mitigate risk, development of a risk-based outlook, based on an analysis of scenarios, to determine the sensitivity and financial impact of potential changes in variables used in the forecasting models should be undertaken to inform future updates to cost forecasts for the programs above and the Ontario Rebate for Electricity Consumers (With 2017-18 costs estimated at about $1B).

GA Refinancing:

The proposed Fair Hydro Act, 2017 is a complex transaction and attempts to balance several key factors including financeability, accounting treatment and legal considerations by:

- Supporting financeability through a number of features, including a provincial undertaking not to interfere with clean energy adjustments once determined, which will be backstopped by a guarantee, and provisions intended to reduce borrowing costs and attract a wide investor base;
- Addressing the necessary accounting requirements through mechanisms to record funding, interest and the transfer of regulatory assets to avoid a fiscal impact to the province; and
- Mitigating legal risk by developing a methodology that attempts to ensure an alignment of costs with benefits to future rate payers.

Key elements of this schedule of the bill include (Appendix E provides more information on elements):

<u>Specified Consumers</u>
- The defined group of consumers to whom the “Fair Adjustment” and “clean Energy Adjustment” applies. Prescribed consumers include residential consumers, farms, small businesses, condominiums, long-term care homes and co-operative housing. These are primarily consumers eligible for the RPP, and aligns with the eligibility under the *Ontario Rebate for Electricity Consumers Act, 2016* (ORECA).

<u>Clean Energy Costs</u>
- Clean energy costs are those costs that arise from the “clean energy initiative” and are allocated to the specified consumers for past, present and expected costs.
- The clean energy costs include estimated amounts to be paid by IESO in adjustments made under section 25.33 of the *Electricity Act*, *1998* (basically, the GA)

<u>Fair Adjustment</u>
- The adjustment to rates to ensure intergenerational fairness.
- July 1, 2017- April 30, 2018- reduction in rates for “specified consumers” based on a 25% reduction for a prescribed typical consumer.
- May 1, 2018- June 30, 2021- the bill allows for rates to be set by regulation (see page 17- Fiscal Pressure).

<u>Fair Allocation Amount</u>
- Principles established in the bill require proper alignment over time between the costs of providing

facilities for clean electricity generation and conservation (“clean energy costs”) and the consumers who benefit from these investments.

- The Minister of Energy sets the fair allocation amount, and is required to:
  - Fairly measure and allocate the estimated clean energy costs (and the clean energy benefits) among the “specified consumers” for applicable “reference periods” (typically every 6 months); and,
  - Take into account (in the fair allocation) funding obligations (financing) that have been incurred;
  - Align these costs with clean energy benefits expected to be received by rate payers in the future.

<u>Clean Energy Adjustment</u>

- Determined by Financial Services Manager (OPG), the clean energy adjustment is the amount that will be recovered from consumers in the future to pay principal, interest, transaction costs and administrative costs associated with the fair adjustment and consistent with the fair allocation amount.
- In accordance with the regulations, the OEB to calculate the rate at which specified consumers are invoiced to recover the clean energy adjustment.

<u>Regulatory Asset and Investment Asset</u>

- A regulatory asset is created as IESO defers its right collect a portion of the rates that it would have otherwise received from customers/LDCs if not for the implementation of the Fair Adjustment.
- Subject to OEB approval, IESO records the funding shortfall as a regulatory asset. Collection rights are deferred until July 1, 2021.
- The Financing Plan contemplates the Financial Services Manager (OPG) establishing financing entities (OPG Trust/SPV) to buy the regulatory asset and the associated rights in exchange for a payment to the IESO. IESO would use the payment to offset the funding shortfall.
- This purchase and sale turns the regulatory asset into an investment asset for the investment asset owner. The transfer includes the rights to collect amounts related to the clean energy adjustment in a manner consistent with the bill.
- The investment interest owner may further sell all or a portion of its rights and interests. An investment interest owner may also grant a security interest over all or a portion of its right, title and interests to secure a funding obligation.
- After 4 years (July 1, 2021) the IESO has the right to collect its funding shortfall from ratepayers in the event that a portion of the regulatory asset is not bought and sold. If the regulatory asset is not sold, the IESO would require an alternative source of financing. IESO has requested a credit facility from the Ontario Financing Authority (OFA) (see page 17- Fiscal Pressure).
- The rights associated with the investment asset require IESO and LDCs to collect money from rate payers as agent of the investment asset owner.

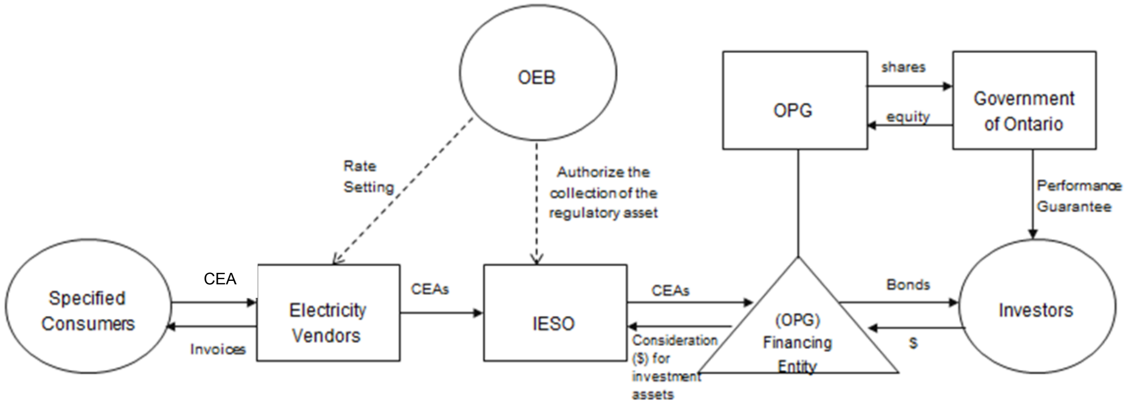
<u>Financing Plan</u>

- In practical terms, the Financing Plan is intended to show how debt (with varying incurrence dates, maturities and interest rates) will be used over time.
- Prepared by the Financial Services Manager (OPG), the Financing Plan is intended to set out when a “funding obligation” (financing) should be incurred so that the (OPG) financing entity can raise money to acquire the “investment interest” from IESO. Plan to be provided to the Minister of Energy.

<u>Crown Undertaking (Guarantee or Backstop)</u>

- The bill provides that no action or omission of the Crown, OEB, or the Minister would be effective to reduce, impair, or postpone or terminate the obligations of specified consumers to pay the clean energy adjustment.
- The Ministers of Energy and Finance together, with LGIC approval, may enter into agreements for compensation with any person in respect of the bill, including regarding the performance of the IESO or electricity vendors under the bill.
- The Ministers of Energy and Finance together, with LGIC approval, may agree to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.

Financing Structure (Provided by Ministry)



Note: CEAs are "clean energy adjustments".

TBS Staff Comments – 2017 Ontario Budget:
The 2017 Budget also includes an investment operating asset of $1.1B related to the Province's equity injection to OPG, enabling the OPG Trust to regularly purchase IESO's regulatory asset through 2017-18. The structure would increase gross debt of the Province (to finance the equity injection in OPG), increase net investment in OPG (so no net debt impact), increase interest on debt related to that external debt which would be offset by increased earnings of OPG from interest revenue. Under the anticipated accounting treatment, the Province's net debt would remain unchanged as the equity investment in OPG would offset the additional Provincial borrowing.

Projected annual amounts of GA deferrals (i.e., the regulatory asset) are shown below and are not part of the province's multi-year fiscal plan (2017 Budget (as they are assumed to be funded from electricity ratepayers under the proposed legislation). Appendix F provides analysis of financial models. The maximum amount of GA deferral under the proposed model would be about $3.5B in 2020, prior to the start of the rate recovery period.

($million)	2017	2018	2019	2020
GA Refinancing - (As part of Residential Bills lowered by 25%)	2,500	2,600	3,000	3,500

- *OPG intends to use a Special Purpose Vehicle (OPG Trust) to purchase for cash the "right to collect" the deferred amounts from the IESO which would be reflected as intangible assets by the Trust. OPG Trust will be structured to finance 51% of its funding requirements through the capital market with the remaining 49% being provided by OPG as subordinated debt. The 49% subordinated debt from OPG will be financed though debt from the capital markets (about 5%) and through equity injections from the Province (44%).*

- *The proposed legislation does not compel the OPG Trust to purchase 100% of the regulatory asset created by IESO at any given time. The IESO has noted that it may need to cover clean energy costs if for some reason the OPG Trust, at any time, chooses not to purchase a portion of the deferred Global Adjustment amounts. On behalf of IESO, the Ministry is requesting a credit facility for IESO, up to about $3B, and notes the use of this credit facility for a length of time could pose a potential fiscal impact to the Province upon consolidation of IESO, especially where GA deferrals remain on the IESO's books at fiscal year-end. Appendix G provides more information.*

Financial, Accounting, Legal Risk Assessments:

The March 1, 2017 TB/MBC Minute, refinancing the Global Adjustment to partially defer RPP eligible ratepayer GA costs, was subject to completed legal, accounting and financing risk assessments.

Appendix H provides more details from the Ministry to what appears below. TBS staff comments are flagged.

Financial

The Ministry indicates it has prepared legislation and is working on developing regulations in close collaboration with key ministries (i.e., TB, MOF, AG and CO), agencies (i.e., OEB, IESO, OPG) and third party financial advisors.

- The proposed legislation enables the province to provide assurances in the form of a "provincial guarantee" to OPG and investors regarding the permanence of the GA Refinancing framework and the authority of the legislature to pass the legislation. The intent is to ensure that the full value of any investment is not rendered not fully recoverable based on a future change made in the legislation.

- The legislation also enables the Province to guarantee borrowing of the trust in the event of a market disruption to mitigate OPG's financing risk. Specifics of these guarantees will be determined in agreements to be negotiated later this year. The intention of the guarantees is to make them as narrow as possible.

It is still possible that the full value of the Regulatory Asset may not be purchased. In such cases, IESO may be able to retain the unsold amounts recorded in its variance account for a short period of time.

In addition, the Ministry has been worked closely with the Ontario Financing Authority (OFA) and TD Securities (TD), as the Province's external financial advisor, on the financing structure (i.e., legislation, provincial guarantees, OPG's equity injections and IESO's enhanced credit facilities).

The Ministry indicates the proposed legislation enables a structure that OFA and TD believe will enable financing at a reasonable cost.

The Ministry also acknowledges given the long term nature of this program (i.e., approximately thirty-years), the calculations related to refinancing of the GA set out in the proposed legislation will be subject to fluctuations in Ontario electricity demand, GA and interest rates in the medium to long-term, and the rate of inflation.

TBS Staff Comments – (See Appendix I for a more in-depth discussion)
- *Internal and external expertise have provided opinion that the proposed structure is constitutionally sound in the short-term (2017-18), but the likelihood of the risk increases in the proceeding four years, which will impact commitment to keep rate increases in line with CPI.*
- *If annual increases in bills or the commodity prices are subject to caps, additional borrowing/ provincial funding may be required.*
- *If a favourable legal and accounting treatment is not implemented, there could be a negative impact on the province's fiscal plan up to $2.5B in 2017-18 and rising.*
- *The proposed structure will be reviewed by credit agencies to allow OPG to borrow in the open market. Depending on assessment, there may be an impact on interest rate for borrowing, the amount of equity/funding the province may need to provide and the requirement for a provincial guarantee.*
- *Uncertainty in the financial model due to dependence on assumptions that are subject to potential volatility may result in higher than anticipated future costs for rate payers and the province.*
- *Financing the costs of GA smoothing through OPG SPV/Trust and the volatility of interest rates may increase the cost of GA smoothing and/or require additional provincial funding.*
- *Credit rating agencies may perceive OPG SPV/Trust's borrowing as debt supported by Province, impacting Province's ratings and cost of borrowing.*

- *Providing a credit facility for IESO to manage while GA deferrals are pending sale, up to about $3B, could result in fiscal plan implications if GA deferrals remain on the IESO's books at the Province's fiscal year-end. IESO is consolidated onto the Province's books.*

<u>Accounting</u>

The ability to implement the GA deferral plan under a non-fiscal impact approach is subject to some uncertainty. While the legislation to enable GA refinancing has benefitted from the review and input of IESO/KPMG, OPG/E&Y and OPCD/E&Y, many specifics remain outstanding and will only be addressed through future regulations and commercial agreements.

The Ministry indicates the following:
- Under the proposed legislation, OEB will issue an "accounting order" to authorize IESO to create a variance account in which it will record the funding shortfall and recover the shortfall in accordance with the legislation and regulations, satisfying accounting concerns regarding OEB oversight in the establishment of the Regulatory Asset.
- The proposed legislation and the associated amendments to the Electricity Act, 1998, enable OPG to create OPG's SPV/Trust as a stand-alone entity able to conduct business separately under a Trust agreement.

KPMG:
- The proposed legislation provides a structure that IESO and KMPG believe meets the necessary accounting requirements. KPMG's accounting opinion however, is in draft pending additional details to be addressed in regulations and commercial agreements.
- An IESO variance account created by the proposed legislation that would be recognized as a "regulatory asset
- An Ontario Power Generation (OPG) special purpose vehicle (SPV) / Trust that would not controlled by IESO and thus have no consolidation risk for IESO.
- The regulatory asset should be derecognized upon transfer to the OPG SPV/Trust as IESO no longer has rights or obligations to the asset (i.e., the transformation from a regulatory asset on IESO books to an investment asset on OPG Trust's books).

TBS Staff Comment – The Auditor General has raised concerns regarding the appropriateness of reporting rate regulated assets on the IESO's books under public sector accounting standards, which may lead to a qualified audit opinion on the consolidated financial statements of the Province.

OPG/E&Y:
- The proposed legislation and the associated amendments to the Electricity Act, 1998, enable OPG to create OPG's SPV/Trust as a stand-alone entity able to conduct business separately under a Trust agreement. Note: To further support the operations and mechanics of the OPG SPV/Trust, additional work will be done through the regulations and supporting agreements/documents.
- OPG will have the authority to set up the SPV/Trust and assign it with powers regarding decision-making, funding and ongoing operation.
- OPG and IESO are developing a process that will allow interest payments to occur under GA Refinancing.
- Based on the existing and proposed legislation, key operating conditions being addressed in regulations and supporting agreements/documents and no introduction of new conditions that would conflict with OPG's control of the SPV/Trust, E&Y concurs with OPG's assessment that the accounting requirements to support "consolidation" of OPG SPV / Trust with OPG Inc. can be met.

TBS Staff Comment – OPG's external auditors, E&Y, have provided feedback regarding the proposed *accounting treatment; however, it is subject to assumptions and limitations, including outstanding details to be addressed in supporting regulations and commercial agreements.*

<u>Legal</u>

- Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the "short" term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.
- Judges can be expected to take a careful look at the government's evidence in support of the re-allocation of Global Adjustment.
- The legislation contains provisions to mitigate the constitutional law risks, including requiring the Minister of Energy to reallocate estimated clean energy costs attributable to each reference period in a way that takes into account the need to align those costs with the estimated clean energy benefits attributable to the same period. Limiting the near-term rate reductions to such amounts which can be justified as counterbalancing disproportionate GA payments during the 2005-2017 period ensures that the statutory 25% reduction is consistent with proportionate reallocation.
- The provincial assurance provision - Under Canadian law, it is not possible for legislation to limit the future exercise of legislative power by the Legislature, including the power to amend or repeal statutory provisions or to expropriate private rights conferred under past statutes. The proposed legislation focus on possible actions by the executive branch of government that might undermine the value of the proposed securities (including regulation-making), rather than seeking to constrain the Legislature's powers.
- The provincial guarantee provisions are intended to backstop the provincial assurance provision Legal risk to the province will be assessed as the agreements are negotiated and drafted.
    - The Minister of Energy and Minister of Finance may, with LGIC approval, enter into agreements regarding the performance of IESO or electricity vendors; and
    - The Minister of Energy and Minister of Finance may, pursuant to LGIC order, agree to guarantee and indemnify any debt, obligation, security or undertaking associated with an investment interest.
- Legal risk to the province will be assessed as the regulation defining the statutory cause of action is developed.

The Ministry indicates it retained Blakes to provide external legal advice in the development of the legislation. The Blakes team provided securitization, constitutional law, energy sector and government expertise. This team was integral to balancing the accounting, legal and finaceability imperatives, as well as differing interests among OPG, IESO, OEB and investment dealers, in crafting the legislation. Blakes will continue to advise through the development of regulations and the commercial agreements.

Navigant Consulting has been retained and is conducting research and analysis that would support the implementation of GA refinancing. The Ministry indicates Navigant is conducting analysis that would inform the expected lifecycle of existing generation infrastructure. Navigant is also analyzing the financial benefits that could be achieved by more closely aligning the costs of this infrastructure with the period over which it is expected to provide benefits. In addition, the Ministry has asked for analysis of the social, health and environmental benefits of phasing-out of coal-fired generation in the province and identify which, if any of these benefits are already accounted for in generator contracts.

The Ministry's signed submission included external opinions and assessments for Ontario Power Generation (Accounting), KPMG Letter to the Independent Electricity System Operator (Accounting Opinion), Ernst &Young (as auditors) letter to OPG concurring with OPG's description of OPG accounting considerations of OFHP.

TBS Staff Comments Overall:
TBS staff note external opinions and assessments are supportive of the Ministry's intended plan for implementing Ontario's Fair Hydro Plan, noting the opinions and assessments must be revisited once key implementation details are finalised (e.g. draft legislation, regulations, special purpose vehicle documents, terms of conditions within various other agreements). Future reassessments, Navigant's analysis of expected lifecycle for existing generation infrastructure (key), and other factors such as Ontario electricity demand, interest rates in the medium to long-term, and the rate of inflation may contribute to fiscal plan implications emerging over time.

The Auditor General has raised concerns regarding the appropriateness of reporting rate regulated assets on the IESO's books under public sector accounting standards, which may lead to a qualified audit opinion on the consolidated financial statements of the Province.

TBS staff also note, while submission details and related discussions have not indicated a non-fiscal mechanism cannot be established, the complexity of the transaction and the time frame involved suggest it is not reasonable, at present, to support a claim of no impact on the province's fiscal plan as the Ontario Fair Hydro Plan is implemented (Appendix I includes a strategic level risk assessment prepared by TBS staff).

Ultimately, GA Refinancing being a sustainable strategy assumes electricity consumers' willingness to accept later to bear the extra costs of deferring electricity price hikes.

Media Buy Request

The Ministry is requesting approval up to $3.5M funding for media buy, to be followed later by a transfer from the Bulk Media program, $2.5M in 2017-18, to recover costs for the public education campaign in 2017-18 only.

- The Ministry indicates spending about $1M on media planning and buying for radio and digital media in 2016-17, forecasting $2.5M in 2017-18 as the cost for television media space is substantially higher than radio, and has indicated no ask for 2018-19. The $3.5M approval request looks to be partly retroactive to include the $1M in 2016-17.

Name of analyst:	James Strang With input from CO, COE, OPCD and OFA	**Phone number:**	416-327-2071
Date:	May 9, 2017	**Log number:**	
Branch / Division:	GGPR, PEMD, COE, OPCD/Treasury Board Secretariat Ontario Financing Authority/ Ministry of Finance		

APPENDIX A: PROPOSED MINUTE

Receive a report back providing an update on current implementation status, including proposed legislation, of the Ontario Fair Hydro Plan, previously at TB/MBC March 1, 2017 and announced on March 2, 2017.

In this regard, the Board:

i) Note that the proposed Fair Hydro Act, 2017, includes:

   Electricity Social Programs:

   a) Establishment of a First Nation Delivery Credit for On-Reserve Consumers, funded from voted appropriations.
   b) Establishment of new distribution rate protection program to eligible residential customers served by LDCs with the highest distribution costs, funded from voted appropriations.
   c) Shift from costs recovered from ratepayers to funding out of voted appropriations for Ontario Electricity Support Programs.
   d) Delayed proclamation for OESP once proposed amendments are passed until the IESO variance account for the program is close to wound down.

   Global Adjustment Refinancing:

   a) Establishes the fair allocation adjustment that gives the relief to certain specified consumers during the period July 1, 2017 to June 30, 2021 to ensure intergenerational fairness.
   b) Requirement for future consumers to pay the clean energy adjustment that backs financings.
   c) Sets out that the Financial Services Manager (OPG) prepares the Financing Plan establishing when a funding obligation should be incurred so that the OPG entity can raise money to acquire the Investment Interest.
   d) Establishes the LGIC's power to authorize the Ministers of Finance and Energy to guarantee and indemnify any debts, obligations, securities or undertakings associated with the investment interest.
   e) Sets out how the regulatory asset will be determined and how it can be converted into the investment asset, and the investment asset rights.
   f) Sets out that security interests can be granted in investment interests in the investment asset.

ii) Recommend the proposed Fair Hydro Act, 2017 to proceed to Cabinet for approval.

iii) Note a new credit facility is being sought by the IESO from the Ontario Financing Authority to ensure that it has the flexibility to finance clean energy costs if for some reason the OPG Trust, at any time, does not purchase any portion of the deferred Global Adjustment amounts payments. An Order in Council to allow the Ontario Financial Authority to provide an expanded credit facility will be requested.

iv) Direct the Ministry of Energy to work with Treasury Board Secretariat and the Ministry of Finance/Ontario Financing Authority and report back to TB/MBC on the details of proposed regulations prior to going to LRC, and to provide the Board with an update towards completed legal, accounting and financing risk assessments.

In this regard, direct the Ministry to:

a) Include a report related to GA Refinancing on findings from sensitivity analysis completed as assumptions vary, such as under different recovery rates, different interest rates, different demand, etc., and combinations of key factors, and then to quantify the likelihood of high/medium/low impact scenarios, with assumptions and methodologies clearly specified and documented.
b) Include electricity social programs with details of forecasting models and costing estimates, including assumptions, sensitivities analysis that would allow identification of risks to the fiscal plan for Broadening RRRP, OESP. The Ministry is to include similar information for the Ontario Rebate for Electricity Consumers.
c) To report back with final program details for 2017-18 for GA Refinancing and Electricity Social Programs, including fiscal plan implications and consumer impacts with detailed assumptions and methodologies specified and documented.
d) To report back with updates to risk mitigation strategies that address key financial and operational risks.

v) Note the following outstanding report back requirements from March 1, 2017 minute:

a) Broadening RRRP – Direct the Ministry to report back to TB/MBC in 2017-18 on the effectiveness, efficiency, and sustainability. Report back to include, but not limited to:
    - Current program outcomes identified and results achieved to date, not just amount of funding flowed to consumers.
    - Establishing program performance management framework including targets for the broadened program now government funded
    - Report on and assessment of impacts of consolidation of LDCs
    - Assessment of distribution rates and implications for the program

b) OESP – Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:
    - Identify eligibility criteria, and refinements being made.
    - Current program outcomes identified and results achieved to date, not just amount of funding flowed to consumers.
    - Establishing program performance management framework including targets for the expanded program now government funded.

c) Affordability Fund – Direct the Ministry to report back through quarterly reporting with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

d) On-Reserve First Nations Delivery Charge – Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant Ontario Energy Board estimate of program costs, from $13M to $20M.

e) Industrial Conservation Initiative – Direct the Ministry to report back through quarterly reporting with results achieved versus expectations for the ICI program, impacts of the change for participation, and impact for ratepayers as costs are recovered from ratepayers.

vi) Approve the Ministry to fund a media buy plan with a maximum value of $3,500,000 with PHD Canada, the Advertising Review Board's mandatory-use media planning and buying Agency of Record. In this regard,

   a) Note the Ministry of Energy has already spent approximately $1,000,000 with PHD Media in 2016-17 and is forecasting expense of approximately $2,500,000 in 2017-18.
   b) Note the Ministry of Energy will return to request a transfer of funds of up to $2,500,000 in 2017-18 to the Ministry of Energy from the Bulk Media Buy program in Treasury Board Secretariat to recover costs for the public education campaign.

APPENDIX B: FINANCIAL TABLES

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE		Fiscal Plan Basis			TABLE B1 Appropriations Basis
$ Millions		**2017-18**	**2018-19**	**2019-20**	**2017-18**
Initiative cost		0.000	0.000	0.000	
Expense changes:					
	Oper	0.0000	0.000	0.0000	0.0000
	Oper	0.0000	0.0000	0.0000	0.0000
Total Fiscal Impact		**0.0000**	**0.0000**	**0.0000**	**0.0000**

APPENDIX C: PREVIOUS TB/MBC MINUTE (MARCH 1, 2017)

Approve electricity rate mitigation actions that support up to a 25% electricity bill reduction (including the 8% reduction announced in 2016) for an average household in 2017.

In this regard, the Board:

i. Direct the Ministry of Energy to implement electricity rate mitigation for all electricity consumers eligible to be billed under the Ontario Energy Board's Regulated Price Plan (RPP) and any other consumers who would be eligible for RPP if their electricity account was with a licensed distributor by:

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

   b) Direct the Ministry to report back to TB/MBC by Spring 2017, prior to going to LRC with any legislation, on the approach to refinance Global Adjustment , including, but not limited to:

      – Formal accounting opinions from OPG and IESO auditors.
      – Completed legal, financing and accounting risk assessments. Assessments to include, but not limited to proposed legislation, technical aspects such as Eurig analysis, and risk to borrowing (in discussion with the OFA).
      – Report on the multi-year profile of GA smoothing, identifying specific assumptions.
      – Report on sensitivity analysis completed as assumptions vary, such as under different recovery rates and periods.
      – Overall risk mitigation plan addressing completed legal, accounting and financing risk assessments.

   c) If a non-fiscal mechanism cannot be established:
      1. Direct the Ministry to report back to Cabinet and TB/MBC with options for achieving a comparable level of electricity rate mitigation in the most cost effective way, in order to minimize the impact on the province's fiscal plan.
      2. Note costs to government of proceeding if cost of refinancing of Global Adjustment is recognized as an expense in the fiscal plan of up to $2,534,000,000 in 2017-18, $2,668,000,000 in 2018-19, $2,942,000,000 in 2019-20, $3,420,000,000 in 2020-21 and $3,232,000,000 in 2021-22.

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

   a) Harmonizing distribution cost for customers with the highest distribution rates (Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc) at the lowest distribution rate paid by the average consumer of the LDCs noted by fall 2017.

b) Note costs estimated at up to $459,000,000 in 2017-18, $472,000,000 in 2018-19, $484,000,000 in 2019-20, and $497,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to broaden RRRP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the broadened program now government funded
- Report on and assessment of impacts of consolidation of LDCs
- Assessment of distribution rates and implications for the program

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

a) Note costs estimated at up to $186,000,000 in 2017-18, $261,000,000 in 2018-19, $325,000,000 in 2019-20, and $375,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

b) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

c) Direct the Ministry to work Treasury Board Secretariat (Behavioural Insights Unit, Centre of Excellence for Evidence-Based Decision Making) to accelerate/ maximize program uptake.

d) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including fiscal plan implications to expand OESP.

e) Direct the Ministry to report back to TB/MBC in 2017-18 on the program's effectiveness, efficiency, and sustainability. Report back to include, but not limited to:

- Identify eligibility criteria, and refinements being made.
- Current program outcomes identified and results achieved to date.
- Establishing program performance management framework including targets for the expanded program now government funded.

iv. Establishing a new government funded Affordability Fund to provide energy efficiency measures to electricity customers who do not qualify for existing low income conservation programs and who have difficulty paying their electricity bills.

a) Approve to commit up to $200,000,000 on a multi-year basis to support the Affordability Fund.

b) Direct the Ministry to report back to TB/MBC with program details, including performance management framework, and multi-year funding profile, and fiscal plan implications.

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

a) Note costs estimated at up to $20,000,000 in 2017-18, $20,000,000 in 2018-19, $20,000,000 in 2019-20, and $20,000,000 in 2020-21 and on-going as part of the 2017-18 PRRT planning process.

b) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, including performance management framework, and clarifying how the programs aligns with the significant Ontario Energy Board estimate of program costs, from $13M to $20M.

c) Direct that any underspending related to any of the initiatives be returned to Treasury Board/Management Board of Cabinet and not be reallocated within the Ministry.

vi. Expanding the Industrial Conservation Initiative (ICI) by reducing the eligibility threshold to 500kW to enhance competitiveness for Class B manufacturers beginning July 2017.

a) Direct the Ministry to report back to TB/MBC by Spring 2017 with final program details, results achieved to date versus expectations for the ICI program, impacts of the change for participation, and impact for ratepayers as costs are recovered from ratepayers.

vii. Direct the Ministry:

a) To work with Treasury Board Secretariat and the Ministry of Finance on the development of a comprehensive risk-based costing, including forecast models and sensitivity tests on assumptions and financial estimates, for the electricity mitigation initiatives.

b) To report back to TB/MBC through regular updates including quarterly reports and the 2018-19 Program Review, Renewal and Transformation (PRRT) on the status of implementation, and revised out-year expenditure requirements if applicable.

c) To continue to work with the Ontario Energy Board, the Independent Electricity System Operator and Ontario Power Generation, through the Long-Term Energy Plan 2017, to further reduce electricity rates across the system.

d) To work with the Ministry of Finance, Treasury Board Secretariat, Cabinet Office and Office of the Premier on an integrated communications strategy.

APPENDIX D: ONTARIO FAIR HYDRO PLAN IMPLEMENTATION UPDATE

The proposed Fair Hydro Act is an omnibus bill with 2 schedules: the Ontario Fair Hydro Plan Act, 2017 and amendments to the Ontario Energy Board Act, 1998 (Appendix E provides details of each):

- Legislative amendments for electricity social programs
- Legislation to provide for the fair allocation of costs of electricity over time (Global Adjustment partial refinancing)

Legislative amendments for electricity social programs

Electricity social programs becoming government funded under OFHP target residential electricity customers disproportionately affected by increased electricity costs.

- **High Distribution Cost Customers:** Some customers in rural areas where the cost to distribute electricity is high can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
- **Low-Income Customers:** Rising electricity costs make up a disproportionally large amount of the household expenditures for low-income households.
- **First Nation On-Reserve Customers:** On-Reserve First Nations customers experience challenges with energy affordability and are seeking to address historical grievances associated with electricity system infrastructure.

The proposed bill amends the *Ontario Energy Board Act, 1998* for various electricity social programs:

Rural or Remote Rate Protection

Rural or Remote Rate Protection (RRRP) mitigates some of the high costs of electricity distribution in rural or remote areas of the Province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001. The bill enables the funding of existing Rural or Remote Rate Protection (RRRP) for prescribed customers to be provided for through provincial appropriations, rather than from electricity.

Appropriated funds would be used to offset the cost of the RRRP program for electricity consumed on or after July 1, 2017.The implementation of the amended RRRP program (moving the majority of costs to the tax base) will require oversight of the government funding provided.

Distribution Rate Protection (Broadened RRRP)

While the RRRP program helps mitigate some of the higher distribution costs for Hydro One R2 customers, as well as certain customers served by Algoma Power, Hydro One Remote Communities and James Bay First Nation LDCs, there is an opportunity to provide further relief to consumers served by higher cost distribution cost LDCs.

The proposed legislation would enable a broader government funded Distribution Rate Protection (DRP) program (broadened RRRP) which provides additional distribution rate protection to residential customers of prescribed higher cost LDCs by enabling the regulations to prescribe a maximum distribution charge for consumption on or after July 1, 2017.

If passed, the eight high-distribution cost LDCs whose customers are eligible customers will be prescribed in regulation. Residential customers of Algoma Power and Hydro One R2 customers would be eligible for additional relief as these LDCs are the highest cost distributors in the province (as well as six additional higher-distribution cost LDCs).

The legislation contains retroactive application of the provisions to offset any potential lapses in implementation and ensure that consumers receive the benefit following the July 1st effective date through to the final effective date of October 1st, 2017.

On-Reserve First Nations Delivery Credit

The proposed bill would enable the provision of a government funded on-reserve First Nations Delivery Credit (FNDC), which would eliminate the delivery charge, or monthly service charge for those customers served by LDCs that do not have a delivery charge, for on-reserve customers prescribed in regulation.

The program is premised around the findings in an OEB Report submitted to the Ministry on December 29, 2016 providing advice on options for an appropriate electricity rate (or rate assistance) for on-reserve First Nations electricity consumers.

Ontario Electricity Support Program (OESP)

The OESP began on January 1, 2016 as a rate-payer funded program to provide relief to low income Ontarians who are struggling to afford their electricity bills. The OEB administers the program.

The Fair Hydro Plan committed to move the program to being government funded, and to expand the OESP by increasing the credit amounts by 50 per cent, making more Ontarians eligible for the program, and aligning the OESP with other social assistance programs to increase uptake.

On March 23, 2017, the OEB issued a Decision and Order to end the OESP volumetric charge paid by all Ontario consumers on May 1, 2017. On April 10, 2017, Cabinet approved amendments to the OESP regulation (O.Reg. 314/15) to increase credit amounts by 50% and introduce new eligibility categories so more Ontarians can access the program. These changes will come into effect on May 1, 2017.

The proposed bill would move the recently expanded Ontario Electricity Support Program (OESP) to government funding, allow for the potential transition of the program administration to the Crown or other entity, and to enable information exchange between the Ontario Disability Support Program (ODSP) and Ontario Works (OW) to potentially allow for automatic enrolment procedures to be established.

The Ministry indicates the proposed legislative amendments will be proclaimed into force at a later date when the OESP charges collected to date (which are being held in an IESO variance account) are depleted. Amendments to the OESP regulation (O.Reg. 314/15) will be needed to implement these legislative changes.

Legislation to provide for the fair allocation of costs of electricity over time (Global Adjustment (GA) Refinancing)

Refinancing a portion of GA is intended to provide significant and immediate rate relief by spreading the cost of electricity investments over the expected lifecycle of the infrastructure that has been built.

The Ministry indicates under OFHP, the electricity bills of current residential consumers would be reduced by 25 per cent on average starting in summer 2017 (This includes the 8% Ontario Rebate for Electricity Consumers). In addition, increases to electricity bill would be held to the rate of inflation for four years. Up to 500,000 small businesses and farms would also benefit.

Reflecting March 2017 approvals (See Appendix C for March 2017 TB/MBC minute), proposed legislation for GA Refinancing is designed to establish a non-fiscal impact mechanism. Minuting indicated proceeding with GA Refinancing requires completed legal, accounting and financing risk assessments.

The proposed approach to GA Refinancing is complex. Appendix E provides proposed legislative details.

- At a high level, the proposed legislation establishes the framework to refinance a portion of the current GA costs to future ratepayers by recognizing the longer term benefit many of these generating assets to the electricity system. The methodology is based on the assumption that some assets are expected to continue to provide benefit to future ratepayers beyond the term of current contracts (typically 20 years), and that future ratepayers are expected to continue to be able to utilize and benefit from these assets in the future.
    - July 1, 2017, to April 30, 2018, reduces, on average, after-tax electricity costs for “specified consumers” by 25% (inclusive of the 8% rebate and shifting of support program to be government funded).
    - May 1, 2018, to June 30, 2021, electricity rates will be prescribed by regulation with the intention to keep increases in line with the Consumer Price Index (CPI).
    - July 1, 2021, to April 30, 2047, electricity rates will increase at a pace that ensures recovery of the accumulated debt, interest costs and administrative costs.
    - Through the proposed bill and amendments to the Electricity Act, 1998 and the Ontario Energy Board Act, 1998, expands the powers of Ontario Power Generation (OPG), the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO) to provide for appropriate oversight, put in place appropriate payment, settlement and cost-recovery authorities for and through the IESO (including accommodating payments to and from any appropriate entity) to manage the refinanced GA costs.

Consumers would see an immediate reduction of their electricity bills as of July 1, 2017. The establishment of the regulatory asset and purchase by OPG, through a special purpose vehicle (OPG Trust) is expected to take three to six months to implement following the introduction of enabling legislation. The IESO has requested a credit facility from the OFA to provide an interim source of financing.

The proposed bill includes a transition provision in circumstances where for technical or operational reasons invoices cannot be adapted in time for the issuance of the first invoices under the program. In these cases, adaptation of invoices must be implemented by August 1, 2017, followed by a subsequent lump sum credit to the consumer once the invoice is adapted.

<u>Expansion of Industrial Conservation Initiative (ICI)</u>

As part of OFHP, the government announced plans to further reduce the ICI threshold from 1 megawatt (MW) to 500 kilowatts (kW) and to target more small manufacturing and industrial consumers.

Effective April 13, 2017, electricity consumers and market participants in the manufacturing and greenhouse sectors (i.e., with North American Industry Classification Standard (NAICS) codes commencing with the digits "31", "32", "33", and “1114”) in Ontario with an average monthly peak demand of greater than 500 kW and less than or equal to 1 MW are eligible to opt-in to ICI. Billing for electricity consumers that opt-in to ICI begins July 1, 2017.

Provisions were also provided to allow electricity consumers to continue their participation in ICI if their demand falls below the monthly peak demand threshold while participating in certain prescribed Conservation and Demand Management (CDM) programs and/or Ontario Climate Change Solutions Deployment Corporations (OCCSDC) programs and pilots.

The Ministry is also undertaking targeted stakeholder outreach.

The rate-base impact of expanding ICI to consumers in the manufacturing and greenhouse sectors is expected to be modest for non-ICI participants.

- The extent of the impact will depend on the uptake in the newly expanded ICI. The Ministry of Energy regularly monitors electricity prices and electricity demand for all classes of electricity consumers and would be able to assess the potential impacts of the regulatory amendments, starting after July 2017.

APPENDIX E: PROPOSED FAIR HYDRO ACT OVERVIEW

The proposed Fair Hydro Act is an omnibus bill with 2 schedules: the Ontario Fair Hydro Plan Act, 2017 and amendments to the Ontario Energy Board Act, 1998, consisting of two schedules:

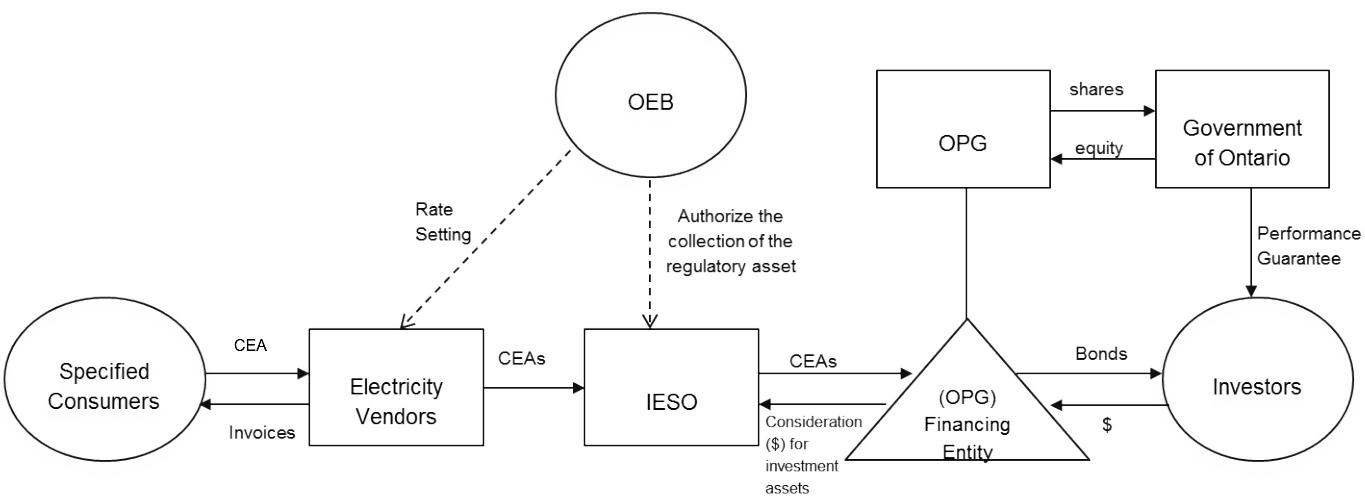
- Schedule 1: Legislation to provide for the fair allocation of costs of electricity over time (Dealing with Global Adjustment (GA) refinancing).
- Schedule 2: Legislative amendments for electricity social programs

The Ministry has provided the following overview of the proposed legislation:

<u>Schedule 1: Legislation to provide for the fair allocation of costs of electricity over time (GA refinancing).</u>

Legislation is based on the principle that the costs incurred to move to a clean, modern and reliable electricity system (Clean Energy Initiative) creates benefits that will be experienced by multiple generations of Ontario ratepayers and, therefore, in the interest of fairness, those costs should be shared by those multiple generations.

The legislation does two things: (i) it establishes the fundamental elements of the fair allocation program, and, (ii) it puts the mechanisms in place to permit the financing of periodic shortfalls in revenue that are created by the fair allocation of electricity costs over multiple generations. The diagram below outlines how the refinancing of GA would be implemented.



Note: CEAs are "clean energy adjustments"

Clean Energy Costs and Benefits:

- The costs included in the "clean energy costs" include estimated amounts to be paid by IESO in adjustments made under section 25.33 of the *Electricity Act* (the Global Adjustment provisions) which relate to contracts for:
  - Renewable energy generation or capacity
  - Conservation and demand management, including shortage
  - Energy efficiency
  - Natural gas generation and capacity (excluding certain contracts under section 78.2 of the *Ontario Energy Board Act* or as prescribed); and
  - Payments made under section 78.5 of the *Ontario Energy Board Act.*
  - Other such costs to be included in "clean energy costs" may be prescribed

- These are the costs to be distributed fairly among the specified consumers through the "fair allocation amount".

Fair Allocation Adjustment:

- Part II establishes that the rate that will be payable by "specified RPP consumers" from May 1, 2017 to April 30, 2018 for the first fair adjustment is the rate that would be required from this program to contribute to that consumer to receiving a total a monthly invoice amount that is 25 per cent lower than the monthly invoice amount for that consumer under the "comparison rate". The comparison rate is a rate to be determined by the OEB using the method prescribed by regulation under s 79.16(1)(b) of the OEB Act.
- Part II includes a transition provision in circumstances where for technical or operational reasons invoices cannot be adapted in time for the issuance of the first invoices under the program (i.e., adaptation of invoices must be implemented by August 1, 2017 followed by a subsequent lump sum credit to the consumer once the invoice is adapted).
- The Lieutenant General in Council is given the authority after April 30, 2018 to make regulations prescribing the rate for electricity (and therefore prescribing the "fair adjustment" until June 30, 2021). After June 30, 2021, regulations will have regard to the fair allocation amount and clean energy adjustments.
- The Minister sets the fair allocation amount.
    - The establishment of the "fair allocation amount" is required to,
        - Fairly measure and allocate the estimated clean energy costs (and the clean energy benefits) among the "specified consumers" for applicable "reference periods"; and
        - Take into account (in the fair allocation) funding obligations (financing) that have been incurred (largely arising from the redistribution of cost across generations of consumers).
    - The "fair allocation amount" is to have regard to:
        - Clean energy costs and allocating the appropriate proportionate amount of the clean energy benefits to the "specified consumers" (in the applicable "reference periods");
        - Reasonable assumptions regarding the time value of money, the number of consumers in the "reference period"; and
        - Expected electricity consumption for the reference period.

Regulatory Asset and Investment Asset:

- IESO will have a funding deferral resulting from the reduction in amounts collected from specified consumers during the first 4 years because of the fair adjustment. The IESO's funding deferral will be financed indirectly through the debt capital markets.
- The Act enables the financing of this IESO funding deferral, on an ongoing basis, by establishing the funding deferral as a "regulatory asset". In simple terms, the regulatory asset is IESO's right to recover the revenues that it has deferred collecting.
- IESO will then legally transfer portions of this right to recover revenues to the (OPG) financing entities. OPG financing entities are not required to purchase the regulatory asset.
- The (OPG) financing entity that receives the transfer of the right to recover revenues acquires a right to impose, invoice and collect those regulatory charges (called the "clean energy adjustments"). This is generally described in the legislation as the "investment asset".
- The (OPG) financing entity will need to finance its acquisition (from IESO) of the investment asset, and it will do so in the capital markets.

Issuance and Payment of Debt:

- Debt securities and related funding obligations will be incurred by one or more (OPG) financing entities. These entities will be managed by OPG, as the financial services manager.
- The financings will be backed primarily by the “clean energy adjustments” payable by specified consumers. The “clean energy adjustments” will track the actual payment obligations incurred by the financing entities when they become due and payable. To ensure intergenerational fairness, these amounts will be managed by OPG to align with the “fair allocation amounts” ascribed to each of the next 60 six month periods ending in 2047 (or such later period as prescribed).
- IESO and each electricity distributor will act as agent for the financing entities to impose, invoice and collect the clean energy adjustments, which will be channeled through to pay each financing entity’s related funding obligations.
- To support the program, the Government of Ontario will be expected to provide certain performance guarantees, indemnities and bond-purchase covenants. The terms of these obligations will be worked out over time in connection with the marketing of financings through OPG. The goal will be achieve highest rated securities, although that will largely depend on issues such as the strength of the Government of Ontario’s undertakings not to adversely affect the program through subsequent legislation.

Financing Plan:

- The Financing Plan is prepared by the Financial Services Manager (OPG).
- The Financing Plan is the plan which is intended to set out when a “funding obligation” (financing) should be incurred so that the (OPG) financing entity can raise money to acquire the “investment interest” from IESO.
- There are rules that apply to the Financing Plan:
    - It must align with the “estimated finance amount” that will become due and payable during a “reference period”;
    - It must take into account the “fair allocation” and any “fair adjustment”;
    - It must plan to implement the financing in a reasonable and cost effective manner that reflects prevailing market terms and conditions; and
    - It must be based on certain reasonable assumptions set out in regulations (for example, related to anticipated IESO shortfalls, maturity of funding obligations, availability of refinancing, redemption opportunities and liquidity, and similar assumptions).
- The (OPG) Financial Services Manager must incur funding obligations in conformity with the applicable Financing Plan.
- The Financing Plan will guide OPG’s decisions regarding the repayment terms of the debt securities to be issued by financing entities. The Financing Plan will also deal with fundamental issues, such as the alignment (using derivatives) of any foreign currency obligations incurred by financing entities with the Canadian dollar cash flows arising through the clean energy adjustments.

Who Does What?

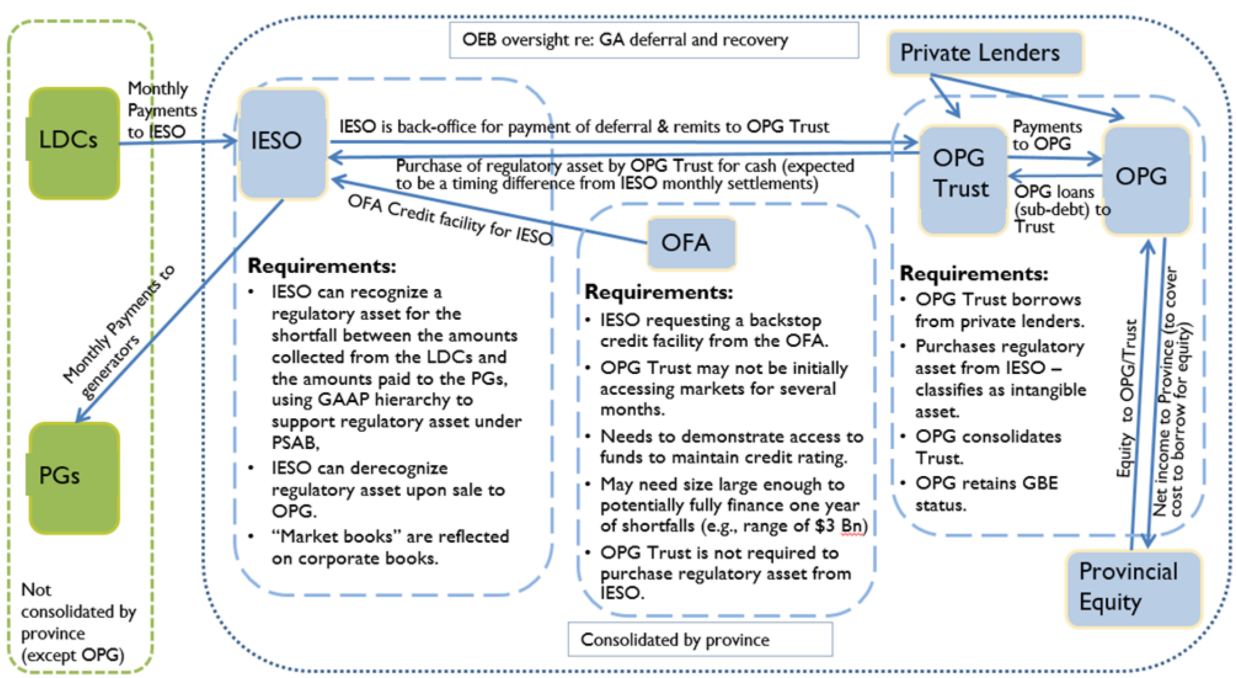
- Minister of Energy – Determine the “fair allocation amount” applicable for each reference period. The fair allocation amounts will be set for all reference periods at the beginning of the program, based on reasonable expectations and forecasts at that time.
- Ontario Power Generation (OPG) – As financial services manager, OPG will be responsible for the following under the Act:
    - Prepare and implement Financing Plan.
    - Establish and administer the financing entities.
    - Capitalize the financing entities by acquiring subordinated debt and equity, as required to achieve OPG’s accounting and capital markets objectives.

- Estimate and "true up" periodic finance amounts, to be passed through as regulatory charges in the form of Clean Energy Adjustments.

- Independent Electricity System Operator (IESO):
  - Calculate and record IESO funding shortfalls from time to time in a variance account, giving rise to a right of recovery from specified consumers to the extent not funded through the financings.
  - Transfer the IESO's rights of recovery to (OPG) financing entities, in consideration for cash payments made by the financing entities from the proceeds of their financings.
  - Coordinates the collection of "clean energy adjustments" from Electricity Distributors.
  - Remit "clean energy adjustments" to (OPG) financing entity, for payment of financing entity funding obligations.
  - Fund initial interest costs and expenses during the first 4 years.

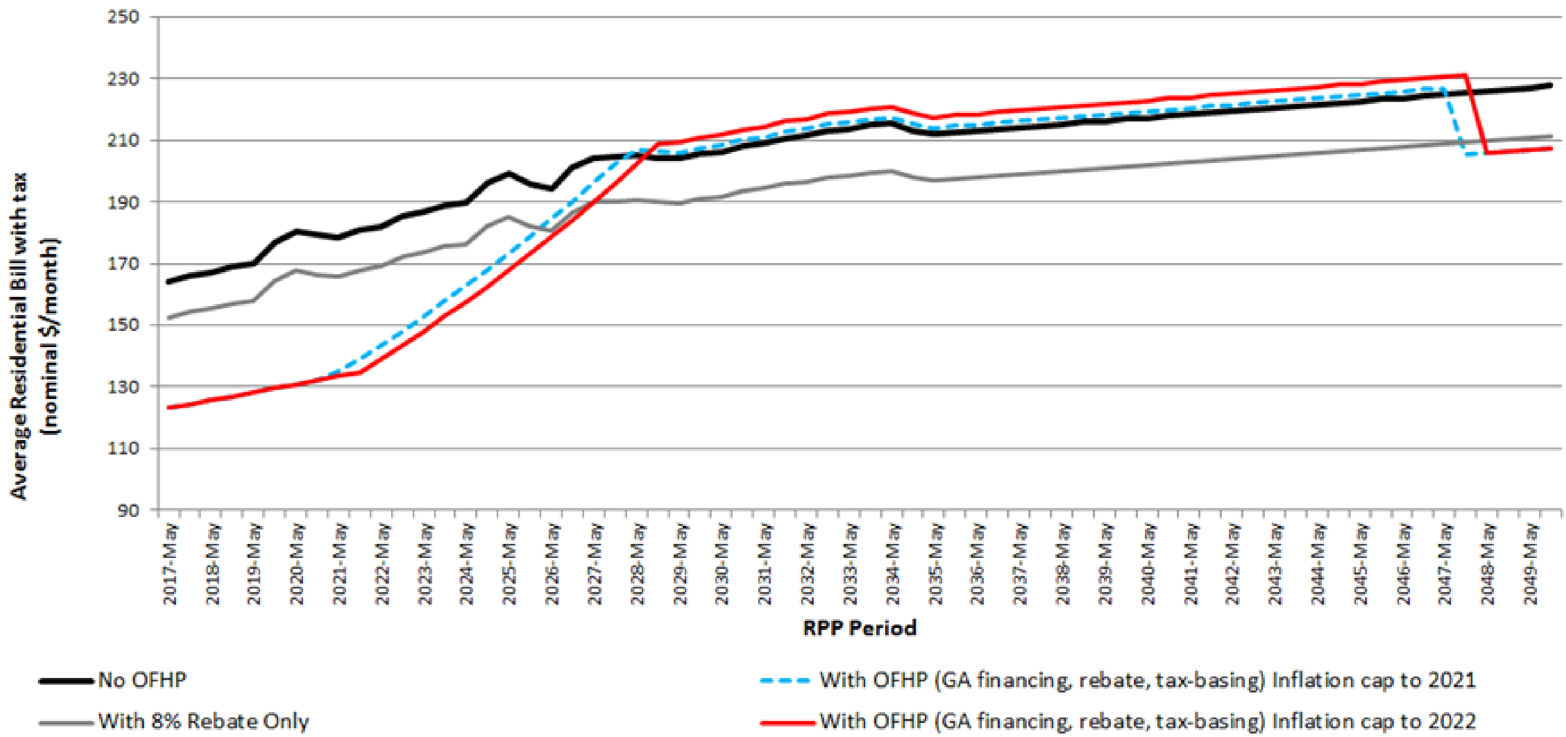
- Local Distribution Companies (LDCs):
  - Obligation to invoice specified consumers.
  - Collect, as agent of the investment interest owners, "clean energy adjustments" from specified consumers.
  - Hold money received for clean energy adjustments in trust until remittance to the IESO.

- Ontario Energy Board:
  - Determine and set rates to account for fair adjustments, fair allocations and clean energy adjustments (monthly adjustments).
  - Determine and set rates and process to allow IESO to recover funding shortfalls (to the extent such amounts are not transferred to an (OPG) financing entity and financed in the capital markets).
  - Review the administrative costs of OPG in connection with the administration of the program.



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

GA Smooting for RPP – Eligible Only



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Average monthly bill with OFHP ($/month)	124	126	129	131	137	146	155	165	176	187	199	207	207	209	212	214
Year-over-year change (%)	n/a	2.01	2.01	2.01	4.25	6.44	6.44	6.44	6.44	6.44	6.44	3.61	0.08	1.20	1.29	1.14
Impact of GA financing and tax-basing ($/month)	-29.9	-30.0	-35.0	-34.4	-28.8	-24.0	-17.8	-14.2	-3.3	3.4	12.2	16.4	16.5	16.7	16.9	17.1
Total accumulated debt ($B)	2.5	5.2	8.2	11.6	14.7	17.5	19.9	22.0	23.5	24.1	24.2	23.7	23.1	22.5	21.8	21.0
Total change in accumulated debt ($B)	2.5	2.6	3.0	3.5	3.1	2.8	2.4	2.0	1.6	0.6	0.1	-0.5	-0.6	-0.6	-0.7	-0.8

	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average monthly bill with OFHP ($/month)	216	216	214	215	216	217	219	220	221	222	223	224	225	226	216	206
Year-over-year change (%)	0.93	-0.04	-0.88	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	-4.37	-4.61
Impact of GA financing and tax-basing ($/month)	17.2	17.1	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.6	17.7	17.8	17.9	18.0	-3.9	-4.0
Total accumulated debt ($B)	20.1	19.2	18.3	17.2	16.1	14.9	13.7	12.3	10.9	9.3	7.7	5.9	4.1	2.1	0.0	0.0
Total change in accumulated debt ($B)	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.3	-1.4	-1.4	-1.5	-1.6	-1.7	-1.9	-2.0	-2.1	0.0

Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2020 such that the average monthly residential electricity bill increases by 6.3% per year to a maximum of $2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. Data shown above is by RPP period. Assumes RPP prices are adjusted in July 2021 instead of May 2021 to coincide with the end of the inflation cap. Fair allocation amounts subject to third party review.

Schedule 2: Legislative amendments for electricity social programs moving to being government funded

As part of the proposed Ontario Fair Hydro Plan, the Ministry of Energy is proposing amendments the *Ontario Energy Board Act, 1998* (OEBA) to enable the following measures:

- Enhancing and providing government funding for Rural or Remote Electricity Rate Protection (RRRP) through new enhanced rate protection for residential customers with high distribution rates
- Enhancing and providing government funding for the Ontario Electricity Support Program (OESP)
- Creating a new First Nation On-Reserve Delivery Credit and providing for government funding

Overview of RRRP and Broadened Distribution Rate Protection:

- Section 79 of the Ontario Energy Board Act would be amended to provide the Ministry the authority to prescribe, through regulation, classes of consumers whose cost would be transferred from the rate-base to the tax-base.
- If the proposed legislative amendments are approved, the government intends to propose regulatory amendments that would prescribe Hydro One's R2 customers as receiving RRRP from appropriated funds effective July 1, 2017. This would fulfill the government's intention to transfer the majority of the costs of administering the RRRP program to the tax-base.
- In addition, Energy is proposing legislative amendments that would broaden rate protection by creating a new distribution rate protection program to complement RRRP. This new program would be funded through tax payers.
- Distribution rate protection would be extended to eligible residential customers served by LDCs with the highest distribution cost.
  - Proposed legislative amendments would enable a maximum monthly base distribution charge to established through regulations.
- If the proposed legislative amendments are approved, the government intends to prescribe by regulation both program details and the residential customers eligible for broadened distribution rate protection served by the following LDCs:
  - Hydro One (R1 and R2 rate classes), Algoma Power, Atikokan Hydro, InnPower, Chapleau Public Utilities Commission, Sioux Lookout Hydro, Lakeland Power (Parry Sound service territory) and Northern Ontario Wires Inc.

Ontario Electricity Support Program:

- Proposed legislation related to the Ontario Electricity Support Program (OESP) would shift program funding from the rate base to the tax base.
  - Tax-based funding would only kick in once the existing OESP variance account is depleted, which is expected to happen in the fall of 2017.
- To allow for the existing program structure to stay in place until tax-based funding kicks in, proposed new legislation would only come into force via a proclamation Order in Council, on a date to be determined.
  - This would ensure that existing OEB authorities remain in place while ratepayer funding is being used.
- In addition, a new authority to allow the OEB and the Ministry of Community and Social Services (MCSS) to share data on customers to support increased participation in the OESP program among Ontario Works and Ontario Disability and Support Program clients would be put in place.

- Information Privacy Commissioner (IPC) staff were consulted, and customer consent is reflected.
- This information sharing component will come into force at Royal Assent, allowing OEB and MCSS to begin this process quickly, and support increasing OESP participation levels.

First Nations Delivery Credit:

- Energy is proposing legislative amendments that would establish a First Nation Delivery Credit for On-Reserve Consumers. This new program would be funded through tax payers.
- The proposed First Nation Delivery Credit would provide:
    - All prescribed on-reserve consumers with a credit for the entirety of their delivery line or with a credit for the monthly service charge.
    - The costs that are covered by the delivery credit are also described in legislation.
- If the proposed legislative amendments are approved, the government intends to propose regulatory amendments that would:
    - Establish the class of customers eligible;
    - Determine what is considered on-reserve; and
    - Determine the method of calculating the delivery credit.

Appendix F: Analysis of Financial Models and Risks

Treasury Board Secretariat received two models related to global adjustment refinancing on April 12, 2017:

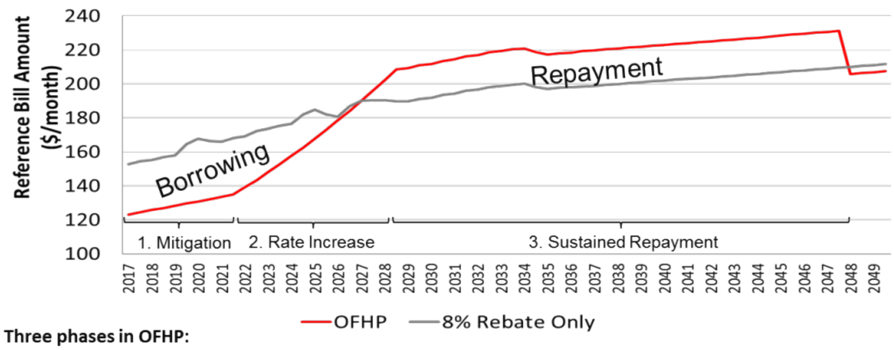
- The model the Ministry of Energy developed and used to support the March 2017 submission
- The financial model that was developed by the Ontario Power Generation (OPG) that provides details regarding the financing of the proposed structure

These models are based on high level aggregates and do not allow TBS to determine the financial impact of potential scenarios in which conditions and forecasts are different. TBS staff have met Ministry of Energy and OPG, and there is agreement for scenarios to be run and for further sensitivity analysis to be undertaken – both to create a risk-based outlook for the province, and to respond to questions that are expected from credit rating agencies.

The Model:

The OFHP can be thought of as having three phases (see diagram):

The model is high level and aggregate, built on other independent forecasts (e.g. IESO demand forecast). There are a large number of assumptions built into the model explicitly and implicitly (as a large number of assumptions are embedded into the other forecasts that are used as inputs into this model).



Three phases in OFHP:

Phase 1: Mitigation
- 2017 bill set 25% lower than original projection (that did not include 8% HST rebate)
- Increase in bill capped to 2% per year until 2021

Phase 2: Rate Increase
- Bill **increases 6.3% each year** to avoid exceeding borrowing limit of $28B
- Planned increases end in 2028 when sustained repayment starts

Phase 3: Sustained Repayment
- Bill remains **10.4% higher** than projected with 8% rebate until 2047
- Difference represents financing repayment
- Total interest paid: **$26.2B**

Model Inputs:

Exogenous Variables
- Interest Rates
- USD/CAD Exchange Rate
- Debt ceiling of $28B (borrowing limit 10% of bill)
- Natural Gas Prices

Policy Parameters
- Use of Toronto Hydro Customer @ 750 kWh as the reference bill
- 25% bill reduction in 2017
- Bill increase capped at CPI annually until 2021
- Rate increase accelerate starting in 2022 in order to never exceed the $28B cap
- Payments set to fully repay by 2047
- Implementation approach

Other Model Inputs
- IESO Demand Forecast (Outlook B)*
- IESO Global Adjustment Forecast*

* includes a large number of variables ranging from: generation costs, federal CO2 price, regulatory charges, energy conservation, technological disruption, exchange rates, load forecasting and seasonal adjustments, etc.)

Analysis of Variables and Risks:

- Interest Rates: the current model is based on a static interest rate of 5%. While this assumption is reasonable in the current low interest rate environment, an increase in interest rates would result in substantially higher residential bills after 2022. For instance, if the interest rates increase from 5% to 7% (historical 30 year average) between 2020 and 2024, financing costs would increase by $11.2B (for a total of $37B). Bill increases from 2022 to 2029 would need to be 7.3% annually (compared to 6.3% in base case) and the bill would remain 12.5% higher from 2029 to 2047 (compared to 10.4% in the base case).

- Demand: The model uses electricity demand from IESO (Outlook B) as a key input.
    - While IESO forecasts have been very accurate in the short to medium term, historically the forecasts have overestimated demand in medium to long term. If the current forecast, used on the projections, has the same bias, the costs borne by customers in the future may be higher.
    - Similarly, other factors that lower demand (conservation, technology adoption, and self-generation) would increase the costs borne by remaining customers to decease the debt associated with GA refinancing.
    - It should be noted that the reverse is also true, that if higher levels of electrification are achieved and demand increases, the cost of paying off the debt will be spread over a greater number of consumers.

- Any scenario that results in higher financing costs for ratepayers in later years may increase the risk that the regulatory charge to repay would be characterized as an unauthorized tax.

- Appendix I provides a more detailed overview of risks.

Analysis is currently underway to better understand intergenerational costs and benefits and the impact of GA smoothing on recovery charges that would be allowed under the current Eurig compliance rules.

Depending on the legal determination, if the annual increases in bills or the commodity prices will be subject to caps, additional borrowing/provincial funding may be required.

With the shift of electricity social programs costs moving to being funded by government appropriations (Including the 8% rebate, total costs are forecast to be $1.4B in 2017-18), cost forecasting models/assumptions should also under go sensitivity analysis to inform future funding requests.

Appendix G: Providing a Credit Facility to IESO

After IESO's review of the proposed legislation, it has indicated to the Ministry and the Ontario Financing Authority (OFA)/MOF that IESO may need to cover clean energy costs if for some reason the Trust, at any time, chooses not to purchase a portion of the deferred Global Adjustment amounts. IESO noted that the proposed legislation does not compel the Trust to purchase 100% of the regulatory asset at anytime. Also, the establishment of the regulatory asset and purchase by the Trust is expected to take three to six months to implement following the introduction of enabling legislation.

The OFA currently provides a $975 million credit facility to the IESO for other purposes, it is proposed that the OFA provide a new credit facility to the IESO, in an amount of up to about $3 billion.

The use of this new credit facility for a length of time could pose a potential fiscal impact to the Province upon consolidation of IESO.

Approvals Required for OFA Financing

OFA indicates the recommended TB/MBC minute should note a new credit facility is being sought by the IESO to ensure that it has the flexibility to cover clean energy costs if for some reason the OPG Trust, at any time, does not purchase any portion of the deferred Global Adjustment amounts payments. An order-in-council will be sought to allow the OFA to be able to provide the new credit facility to the IESO, for an amount to be determined as per the requirements of the Fair Hydro Plan.

The following approvals are required by the OFA to accommodate the request to provide financing to the IESO:

1) An Order-in-Council is required for the Minister of Finance to lend to the OFA.
2) A Directive from Minister of Finance is required for the OFA to on-lend to the IESO.
3) An executed credit agreement between the OFA and the IESO.

1. Order-in-Council (OIC)

An OIC is required to authorize the Minister of Finance to lend to the OFA. Ministry of Finance Legal Services Branch would need to be engaged to facilitate the request.

- The existing $975 million credit facility was covered under OIC 675/97 which authorized the Minister of Finance to lend a revolving $2.16 billion to the OFA. This OIC was originally obtained in 1997.

It is understood that upon drafting the OIC (by MOF Legal), the OIC would need final approval from Lieutenant Governor in Council LGIC as required under section 22(1) of the *Capital Investment Plan Act*, 1993.

- The OIC would go through Deputy Minister of Finance, Minister of Finance, Chair of Cabinet for briefing/sign-offs and finally to the LGIC for approval.

To draft the OIC, the following details will be required:

i. Dollar Value of Loan from the Minister of Finance to the OFA
ii. Maturity Date of the Loan
iii. Interest Rate of the Loan

The following are recommended to accommodate IESO's need for financing:

i. <u>Dollar Value of Loan:</u>
$3 billion, as per request. The OIC would provide the maximum limit of any loan to IESO and it may be advisable to add a cushion and provide an OIC for $3.5 billion.

ii. Maturity Date of the Loan:
OIC maturing March 31, 2048 would provide approximately 30-year term to match the Fair Hydro Plan. It may be advisable to add a cushion and set a maturity date to March 31, 2053 (cushion of 5-years).

iii. Interest Rate of the Loan
Interest rates on the loans from the Minister of Finance to the OFA have typically been a 1) Ontario 90-day t-bill rates, 2) flow-through of the rates charged to the third-party by the OFA and/or 3) the rate charged to the third-party by the OFA less 25bps.

OFA recommends to keep this unchanged to provide consistency with past OICs but also to provide flexibility in the rates that could potentially be charged to IESO, to be determined by the Minister of Finance, by way of the Minister's Directive.

2. Minister's Directive

Once the Minister of Finance has the authority under an OIC, a Minister's Directive can authorize the OFA to lend to IESO. The Directive can outline specific terms and conditions as needed.

3. Executed Credit Agreement

With a Minister's Directive approved, the OFA and IESO can work to execute a credit agreement, subject to any terms and conditions of the Directive and any policy considerations.

APPENDIX H: FINANCIAL, LEGAL, ACCOUNTING RISK ASSESSMENTS (MINISTRY)

The Ministry was asked to report back to TBS/MBC with on details on how financing, accounting and legal risks would be mitigated.

Financing

<u>OFHP Legislation</u>

The purpose of the proposed legislation is to support the Government of Ontario's commitment to ensure that the costs of investments in the electricity system are allocated fairly among present and future generations of consumers. Costs to be allocated include clean and renewable generation facilities, conservation, demand management, energy efficiency programs.

The supporting legislation defines the mechanisms and framework that would achieve the refinancing of the (GA), including:

- <u>Fair Allocation Amount</u>: Is a calculation and allocation of clean energy costs over time. It is expected that the calculation would lead to decreased rates in the near term with rates higher than forecast in the long term. The Minister of Energy is to calculate the Fair Allocation Amount and provide the amount to the Financial Services Manager (OPG). Subsequent calculations may be undertaken by other agents as prescribed by the Minister.
- <u>Fair Adjustment:</u> Sets out the mechanism for the Ontario Energy Board (OEB) to determine the "relief", including the initial decrease in rates to achieve the 25% decrease, for the period July 1, 2017 to April 30, 2018. Under the legislation, the OEB must determine the amount within 15 business days of the legislation coming into force. The Fair Adjustment also allows the Lieutenant Governor in Council (LGIC) to make regulations prescribing electricity rates for the period May 1, 2018 to June 30, 2021.
- <u>Clean Energy Adjustment:</u> Is the mechanism to recover the under-collection of GA from eligible consumers during the recovery period. This is an adjustment to a consumer invoice on a monthly basis to repay principal, interest and other financing. IESO and each electricity distributor will act as an agent for the financing entity to impose, invoice and collect the clean energy adjustments.

The Ministry has prepared legislation and regulations in close collaboration with key ministries (i.e., TB, MOF, AG and CO), agencies (i.e., OEB, IESO, OPG) and third party financial advisors.

- The proposed legislation enables the province to provide assurances in the form of a "provincial guarantee" to OPG and investors regarding the permanence of the GA Refinancing framework and the authority of the legislature to pass the legislation. The intent is to ensure that the full value of any investment is recoverable.
- The legislation also enables the Province to guarantee borrowing of the trust in the event of a market disruption to mitigate OPG's financing risk. Specifics of these guarantees will be determined in agreements to be negotiated later this year

It is still possible that the full value of the Regulatory Asset may not be purchased. In such cases, IESO may be able to retain the unsold amounts recorded in its variance account for a short period of time.

In addition, the Ministry has been worked closely with the Ontario Financing Authority (OFA) and TD Securities (TD), as the Province's external financial advisor, on the financing structure (i.e., legislation, provincial guarantees, OPG's equity injections and IESO's enhanced credit facilities).

In particular, the proposed legislation enables a structure that OFA and TD believe will enable financing at a reasonable cost. Key elements that support this financing structure include:

- OPG issuances of subordinated debt to the SPV/Trust representing up to 49% of total borrowing; and
- Conditional (springing) guarantees by the Province to provide a backstop in the event of specific and limited events (e.g., changes to legislation that harm investor interests).

Note: The ability to finance and the cost of financing will only be known with certainty once OPG takes this structure to market.

<u>OPG Financing / OPG Equity Financing</u>

The ability to engage in the fair distribution of clean energy costs requires financing during periods where the collection of the clean energy costs is deferred to later years. The proposed legislation outlines mechanisms that are required to enable the financing and meet requirements for rating agencies and investors.

IESO will have a funding gap resulting from the reduction in amounts collected over four years. The legislation enables IESO to record the under-collection of GA in a variance account, and deems this under-collected amount to be a “Regulatory Asset”.

- OEB would determine rates to allow IESO to recover under-collection recorded in its variance account.
- IESO is authorized to sell all or a portion to the OPG Special Purpose Vehicle (SPV)/Trust under the Financing Plan.

As part of supporting the financing and administration of the GA refinancing mechanism, it is expected that OPG would purchase the right to future cash flows from IESO on an ongoing basis.

The sale of the regulatory asset from IESO to the OPG Special Purpose Vehicle (SPV)/Trust creates an “Investment Asset”.

- The Investment Asset allows for the recovery of the under-collected GA as the Investment Asset may in turn be sold to other investors or group of investors.

The Ministry has worked closely with third-party financial advisors in advance of and throughout the drafting process to help to ensure that the proposed legislation enables refinancing of the GA.

These purchases would be financed in part by capital infusions from the Province to OPG for the purposes of stabilizing OPG’s capital structure:

- OPG would require monthly “equity injections” from the Province which would be fiscally neutral as OPG would issue new shares to the Province in exchange;
- Funds from the Province would flow from the Ontario Financing Authority (OFA); and
- The Ministry, OFA and OPG are working through the specific mechanisms, timelines and share features.
- It is anticipated that the initial equity injection would take place as early as June 2017.

Through PRRT, the Ministry of Energy received approval for the creation of an operating asset ”OPG Share Purchase” and expenditure increase of $1.1billion in 2017-18 within Vote 2905-5, which is based on the latest estimates by IESO, and provides flexibility to account for forecasting uncertainty. This approval is pending passage of the proposed legislation.

OPG will provide a two year forecast of its equity requirements to the Ministry on annual basis, as part of OPG’s business plan process. Note: While included in the business plan, equity requirements will not form part of the Ministry of Energy’s concurrence process.

For future funding requirements, the Ministry will seek appropriation through the PRRT process.

OPG will seek to achieve the highest possible credit rating (i.e., AAA is possible) in order to reduce borrowing costs and attract a wide investor base. Credit ratings will depend on provisions in legislation, regulation and agreements as well as the capital structure of the SPV / Trust. Despite these factors, rating agencies may see the Province's rating forming a ceiling given the contingent guarantees that the Province will provide (described above).

In addition, given the long term nature of this program (i.e., approximately thirty-years), the calculations related to refinancing of the GA set out in the proposed legislation will be subject to fluctuations in Ontario electricity demand, GA and interest rates in the medium to long-term.

- Should electricity demand be higher than forecast as a result of greater electrification, the cost of paying off the debt will be spread over a greater pool of consumption and decreasing future costs for individual ratepayers. Note: The reverse is also true in regards to decreasing demand.
- Should interest costs increase from the assumed 5%, total borrowing costs would rise. Given that this is a unique offering, managing investor confidence will be key to ensure borrowing costs don't rise. Note: The reverse is also true in regards to interest rates being lower than assumed.

<u>IESO's Credit Facilities</u>

IESO is in discussions with the Ontario Financing Authority (OFA) regarding an increase to its current "line of credit" with the OFA and OEFC (i.e., credit facilities). The increases are in response to IESO role in the delivery of OFHP and to provide a necessary buffer to fund short periods where OPG SPV/Trust does not fund a shortfall.

IESO advises that this is important not only for IESO solvency, but also to maintain its credit rating (i.e., IESO's contracted suppliers' credit arrangements are often based on IESO maintaining a certain rating).

IESO would require financing to compensate generators should it be required to hold any portion of the unpurchased Regulatory Asset beyond each monthly settlement period. OPG Trust is not expected to access public capital markets monthly, nor is it required to purchase the regulatory asset. Therefore, IESO will need a credit facility for interim financing. IESO may also require longer-term financing to maintain the deferral financing plan, should the OPG Trust not be able to access debt markets on a timely basis for purchase of some or all of the regulatory asset.

Accounting

The legislation to enable GA refinancing has benefitted from the review and input of IESO/KPMG, OPG/E&Y and OPCD/E&Y.

The proposed legislation establishes mechanisms to enable the funding, sale and transfer between IESO and OPG that respond to the accounting requirements and advice outlined in the March 1, 2017 Cabinet Submission, such as concerns regarding consolidation by the Province.

Under the proposed legislation, OEB will issue an "accounting order" to authorize IESO to create a variance account in which it will record the funding shortfall and recover the shortfall in accordance with the legislation and regulations. This satisfies accounting concerns regarding OEB oversight in the establishment of the Regulatory Asset.

IESO will effectively sell the "right to collect" deferred future revenue from ratepayers to OPG in return for cash proceeds.

The proposed legislation and the associated amendments to the Electricity Act, 1998, enable OPG to create OPG's SPV/Trust as a stand-alone entity able to conduct business separately under a Trust agreement.

To recover its revenue shortfall, IESO will establish a Regulatory Asset that it would sell to OPG's SPV/Trust.

<u>KPMG</u>

The Ministry has worked closely with the Independent Electricity System Operator (IESO) and KPMG on the accounting considerations of GA Refinancing (i.e., legislation, applications of accounting standards/principles, minimizing consolidation risks and ability to establish a regulatory asset).

In particular, the proposed legislation provides a structure that IESO and KMPG believe meets the necessary accounting requirements. Key elements include:

- An IESO variance account created by the proposed legislation that would be recognized as a "regulatory asset".
- An Ontario Power Generation (OPG) special purpose vehicle (SPV) / Trust that would not controlled by IESO and thus have no consolidation risk for IESO.

In addition, KMPG provided some commentary on the accounting requirement for the "derecognition" of the regulatory asset once it's sold to OPG SPV/Trust. KPMG advised that the regulatory asset should be derecognized upon transfer to the OPG SPV/Trust as IESO no longer has rights or obligations to the asset (i.e., the transformation from a regulatory asset to an investment asset).

<u>OPG</u>

The Ministry has worked closely with the Ontario Power Generation (OPG) and E&Y, on the accounting requirements to enable GA Refinancing with respect to consolidation (i.e., legislation, applications of accounting standards/principles, establishing a special purpose vehicle (SPV) / Trust).

The proposed legislation and the associated amendments to the Electricity Act, 1998, enable OPG to create OPG's SPV/Trust as a stand-alone entity able to conduct business separately under a Trust agreement. Note: To further support the operations and mechanics of the OPG SPV/Trust, additional work will be done through the regulations and supporting agreements/documents.

- OPG will have the authority to set up the SPV/Trust and assign it with powers regarding decision-making, funding and ongoing operation.
- OPG and IESO are developing a process that will allow interest payments to occur under GA Refinancing.

Based on the existing and proposed legislation, key operating conditions being addressed in regulations and supporting agreements/documents and no introduction of new conditions that would conflict with OPG's control of the SPV/Trust, E&Y concurs with OPG's assessment that the accounting requirements to support "consolidation" of OPG SPV / Trust with OPG Inc. can be met.

Legal

In principle, refinancing the Global Adjustment (GA) to spread the costs of generation and conservation assets over the useful life of the assets presents only a "low" risk of being an unconstitutional tax, as each cohort of consumers pays for a proportion of the GA cost roughly equal to the proportion of the benefit they receive from the useful life of the assets.

Legal risk arises if it becomes apparent that the Government is not spreading cost so that it is shared proportionately by future consumers who cause a need for or benefit from the generation asset, but rather is doing so in order to lower the price in the "short" term by increasing the price in the long term. If the proposed financing served to encumber future consumers with a premium payment to cover the GA financing in order to subsidize current ratepayers, then there would be a moderately high constitutional risk that the financing proposal would result in an unconstitutional tax.

Former Supreme Court Justice Ian Binnie has provided a legal opinion concluding that the current proposal is at a moderately high risk of being a tax, for the following reasons:

- The degree of constitutional risk is in direct proportion to the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year from electricity generated by those facilities.
- If the government fails to establish that the relevant electricity generating assets will continue to perform economically over the 30-year period, or if the GA charge is in the opinion of the Court disproportionately backend loaded, the GA will not qualify as a regulatory charge (and would be characterized as a tax).
- By shifting costs to the 20-30 year customers, the government may in reality be disproportionately back-end loading the GA with the effect that the 20-30 year consumers will be subsidizing the 1-20 year consumers.
- The judges can be expected to be aware of the difficult political problem of high energy costs in in Ontario, and will take a careful look at the government's evidence in support of the re-allocation of the GA.

The legislation contains provisions to mitigate the constitutional law risks, including requiring the Minister of Energy to reallocate estimated clean energy costs attributable to each reference period in a way that takes into account the need to align those costs with the estimated clean energy benefits attributable to the same period. Limiting the near-term rate reductions to such amounts which can be justified as counterbalancing disproportionate GA payments during the 2005-2017 period ensures that the statutory 25% reduction is consistent with proportionate reallocation.

The bill provides for provincial assurances, guarantees and a statutory cause of action.

The provincial assurance provision is intended to mirror as closely as possible the language of a similar provision that appears in legislation in the United States that purports to limit a state legislature's ability to enact legislation that would affect the transaction.

The main legal risk associated with the provision is that its precise legal purpose and intended effect are not clear. Under Canadian law, it is not possible for legislation to limit the future exercise of legislative power by the Legislature, including the power to amend or repeal statutory provisions or to expropriate private rights conferred under past statutes.

In light of this limitation, the U.S. provision has been modified to focus on possible actions by the executive branch of government that might undermine the value of the proposed securities (including regulation-making), rather than seeking to constrain the Legislature's powers. However, in the absence of some future statutory amendment, it is not clear what, if any, executive action could have the effect of undermining the payment obligation that would be imposed on consumers under the Act and, therefore, it is not clear what practical risk the provision is designed to mitigate against. This uncertainty creates a risk that a reviewing court could construe the provision in unanticipated ways.

The guarantee provisions are intended to backstop the provincial assurance provision and provide that:

- The Minister of Energy and Minister of Finance may, with LGIC approval, enter into agreements regarding the performance of IESO or electricity vendors; and
- The Minister of Energy and Minister of Finance may, pursuant to LGIC order, agree to guarantee and indemnify any debt, obligation, security or undertaking associated with an investment interest.

Legal risk to the province will be assessed as the agreements are negotiated and drafted.
A statutory cause of action may be created by LGIC regulation. Much like the provincial assurance provision, the statutory cause of action provision is intended to mirror features of US legislation. Legal risk to the province will be assessed as the regulation defining the statutory cause of action is developed.

The Ministry retained Blakes to provide external legal advice in the development of the legislation.The Blakes team provided securitization, constitutional law, energy sector and government expertise. This team was integral to balancing the accounting, legal and finaceability imperatives, as well as differing interests among OPG, IESO, OEB and investment dealers, in crafting the legislation. Blakes will continue to advise through the development of regulations and the commercial agreements that will ensue.

<u>Navigant Analysis</u>

Navigant Consulting has been retained and is conducting research and analysis that would support the implementation of GA refinancing. Specifically, Navigant is conducting analysis that would inform the expected lifecycle of existing generation infrastructure. Navigant is also analyzing the financial benefits that could be achieved by more closely aligning the costs of this infrastructure with the period over which it is expected to provide benefits. In addition, the Ministry has asked for analysis of the social, health and environmental benefits of phasing-out of coal-fired generation in the province and identify which, if any of these benefits are already accounted for in generator contracts.

APPENDIX I: OVERVIEW OF RISKS

Prepared by TBS staff, the following chart provides an overview of strategic (versus operational) risks to inform the approval/decision making process regarding the proposed legislation. Each part, GA Partial Refinancing & Electricity social programs, is a separate table.

Global Adjustment Partial Refinancing:

Objective: Provide immediate ratepayer relief by capping rate increases at Consumer Price Index (CPI) for four years and refinancing GA costs over a longer period of time. Develop and implement a financing structure that increases provincial borrowing, but has no impact on annual provincial surplus/deficit.

Risk	Level of Risk	Risk Response
The determination of the appropriate legal and accounting treatment to be applied to the financing model may result in the costs of GA smoothing being allocated to the province.	**Risk Likelihood:** Possible **Risk Impact:** Critical **Time Scale:** 6 to 12 months **Rationale:** • The structure of the GA deferral was designed to result in an increase in provincial borrowing, no increase in net debt and no impact on surplus/deficit. • The proposal assumes GA refinancing does not have a fiscal impact because the legal authority and accounting treatments are met. • If a favourable legal and accounting treatment is not implemented, there could be a negative impact on the province's fiscal plan up to $2.5B in 2017-18 and rising. • Rating agencies and investors in the Province's debt may view all of the borrowing as an obligation of the Province, especially taking into account the nature of provincial guarantees, which could put pressure on the Province's credit rating and overall borrowing capacity. • Proposed structure may result in a negative response from Ontario Auditor General (OAG) due to previous concerns regarding recognition of rate regulated assets and liabilities. The AG has already expressed concerns regarding the accounting treatment on the IESO's books which could lead to a qualification of the Province's consolidated financial statements. • Initial assessment of the accounting considerations suggests that the proposed model is in alignment with established accounting standards.	Risk can be mitigated by: • Commissioning external opinions on the legal, fiscal and accounting requirements, which could be used by the Province to justify structure of financial model and be utilized in discussions with the OAG. • Identify potential options to minimize the balance of rate regulated assets remaining on the IESO's books at fiscal year-end.

Risk	Level of Risk	Risk Response
Uncertainty in the financial model due to dependence on assumptions that are subject to potential volatility may result in higher than anticipated future costs for rate payers and the province.	**Risk Likelihood:** Likely **Risk Impact:** Major **Time Scale:** More than 36 months **Rationale** • The financial model developed is a high level and aggregate model, which is built on independent forecasts. There are a large number of assumptions built into the model explicitly and implicitly (as a larger number of assumptions are embedded into the other forecasts that are used as inputs into the model). • The proposal financing structure will accrue total interest of about $26.2 billion, which is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.	Risk can be mitigated by: • Development of a risk-based outlook, based on an analysis of scenarios, to determine the financial impact of potential changes in variables used in the financial models. • Building permissive language in the legislation and regulations to allow for timely course correction mechanisms (i.e. higher payment amounts and/or rate increases) • Regulations to prescribe the methodology to be applied by the Ontario Energy Board (OEB) to determine electricity rates in response to potential deviation from forecasted financing plans.
A legal determination that the Province is spreading the costs of GA financing in order to lower the price in the short term by increasing the price in the long term may result in the GA charge characterized as a tax and deemed unconstitutional.	**Risk Likelihood:** Medium **Risk Impact:** High **Time Scale:** Long-Term (More than 36 months) **Rationale** • If characterized as a tax, the GA charge could be subject to legal challenge and struck down as unconstitutional, allowing consumers to recover their payments. • Likelihood dependent on the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year. The bigger the reduction in charges to current consumers, the higher likelihood of the risk being realized. • Internal and external expertise have provided opinion that the proposed structure is constitutionally sound in the short-term (2017-18), but the likelihood of the risk increases in the proceeding four years, which will impact commitment to keep rate increase in line with CPI. • If annual increases in bills or the commodity prices are subject to caps, additional borrowing/provincial funding may be required.	Risk can be avoided by: • Imposition of a valid tax. • Change in policy (i.e. allow greater rate increases during the remainder of the rate mitigation phase and higher increases and payment amounts throughout rate increase and payment phase). • Use of public funds to ease pressure. Risk can be mitigated by: • Improve forecasting model and close monitoring of costs and changes in variables built into model. • Analyze the costs and benefits of the long lived assets (specifically usability beyond a 20 year period) to assist in determining a supportable GA deferral structure. • Draft legislation with built-in provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court.

Risk	Level of Risk	Risk Response
Financing the costs of GA smoothing through OPG SPV/Trust and the volatility of interest rates may increase the cost of GA smoothing and/or require additional provincial funding.	**Risk Likelihood:** Possible **Risk Impact:** Moderate **Time Scale:** 12 to 24 months **Rationale** • The proposed structure will be reviewed by credit agencies to allow OPG to borrow in the open market. Depending on assessment, there may be an impact on interest rate for borrowing, the amount of equity/funding the province may need to provide and the requirement for a provincial guarantee. • As the OPG SPV/Trust will be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • If the Trust can't raise the full funding requirements, additional cash injections would be required. If the borrowing cap of $28B is reached sooner than forecast, the province may have to provide incremental funding to float the program to 2047. • Beyond 2022, when steep increases are required, there will likely be additional pressure on the government to offset a part of the scheduled increases. • Risk that credit rating agencies may perceive OPG SPV/Trust's borrowing as debt supported by Province, impacting Province's ratings and cost of borrowing.	Risk can be avoided by: • Province providing a potential guarantee for the cost of borrowing – however, would redirect risk back to the Province and negate benefits of proposed financing structure. Risk can be mitigated by: • Equity injections from the province to support OPG as the owner and manager of GA refinancing and allow OPG to strengthen the capital structure of the Trust in order to secure financing at a reasonable cost. • Proposed legislation to enable GA refinancing has been draft with input from third-party financers. Provides a 'narrow' provincial guarantee and ensuring that debt holders have the right of action against a future government to recover the amount outstanding including interest, fees, expenses and any damages.
Risk	**Level of Risk**	**Risk Response**

Risk	Level of Risk	Risk Response
The determination of the appropriate legal and accounting treatment to be applied to the financing model may result in the costs of GA Refinancing having a fiscal impact to the province.	**Risk Likelihood:** Possible **Risk Impact:** Critical **Time Scale:** 6 to 12 months **Rationale:** • The structure of the GA deferral was designed to result in an increase in provincial borrowing, no increase in net debt and no impact on surplus/deficit. • The proposal assumes GA refinancing does not have a fiscal impact because the legal authority and accounting treatments are met. • If a favourable legal and accounting treatment is not implemented, there would be a negative impact on the province's fiscal plan of up to $2.5B in 2017-18 and rising. • Rating agencies and investors in Province's debt may view all of the borrowing as an obligation of the Province, which could put pressure on the Province's credit rating and overall borrowing capacity. • The proposed structure may result in an opinion from the Ontario Auditor General (OAG) considering previous concerns regarding recognition of rate regulated assets and liabilities. The OAG may take this into account when the provincial books are audited. • An initial assessment of the accounting considerations suggests that the proposed model is in alignment with established accounting standards. Additional analysis is still required.	Risk can be mitigated by: • Commissioning external opinions on the legal, fiscal and accounting requirements, which could be used by the Province to support discussions of the financial model with the OAG.
Uncertainty in the financial model due to dependence on assumptions that are subject to potential volatility may result in higher than anticipated future costs for rate payers and the province.	**Risk Likelihood:** Likely **Risk Impact:** Major **Time Scale:** More than 36 months **Rationale** • The financial model developed is a high level and aggregate model, which is built on independent forecasts. There are a large number of assumptions built into the model explicitly and implicitly (as a larger number of assumptions are embedded into the other forecasts that are used as inputs into the model). • The proposal financing structure will accrue total interest of about $26.2 billion, which is sensitive to many factors, including interest rate, natural gas and carbon prices, generation costs and demand levels.	Risk can be mitigated by: • Development of a risk-based outlook, based on an analysis of scenarios, to determine the sensitivity and financial impact of potential changes in variables used in the financial models. • Building permissive language in the legislation and regulations to allow for timely course correction mechanisms (i.e. higher payment amounts and/or rate increases) • Regulations to prescribe the methodology to be applied by the Ontario Energy Board (OEB) to determine electricity rates in response to potential deviation from forecasted financing plans.

Risk	Level of Risk	Risk Response
A legal determination that the Province is spreading the costs of GA refinancing in order to lower the price in the short term by increasing the price in the long term may result in the GA charge characterized as a tax and deemed unconstitutional.	**Risk Likelihood:** Possible **Risk Impact:** Major **Time Scale:** Long-Term (More than 36 months) **Rationale** • If characterized as a tax, the GA charge could be subject to legal challenge and struck down as unconstitutional, allowing consumers to recover their payments. • Likelihood dependent on the extent the government is not able to show a proper match between the cost of providing facilities for electricity generation and the group of consumers who benefit year to year. The bigger the reduction in charges to current consumers, the higher likelihood of the risk being realized. • Internal and external expertise have provided opinion that the proposed structure is constitutionally sound in the short-term (2017-18), but the likelihood of the risk increases in the proceeding four years, which will impact commitment to keep rate increase in line with CPI. • If annual increases in bills or the commodity prices are subject to caps, additional borrowing/provincial funding may be required.	Risk can be avoided by: • Imposition of a valid tax. • Change in policy (i.e. allow greater rate increases during the remainder of the rate mitigation phase and higher increases and payment amounts throughout rate increase and payment phase). • Use of public funds to ease pressure. Risk can be mitigated by: • Improve forecasting model and ongoing monitoring of costs and changes in variables built into model. • Analysis of the costs and benefits of the long lived assets (specifically usability beyond a 20 year period) to assist in determining a supportable GA deferral structure. • Draft legislation with built-in provisions to allow for the balance of the legislation to remain in effect if any particular clause or section is struck down by a court.

Risk	Level of Risk	Risk Response
Refinancing GA costs through an OPG SPV Trust may increase costs and/or require provincial funding.	**Risk Likelihood:** Possible **Risk Impact:** Major **Time Scale:** 12 to 24 months **Rationale** • The proposed borrowing structure will be reviewed by credit agencies to allow OPG to borrow in the open market. Depending on assessment, there may be an impact on the interest rate for borrowing, the amount of equity / funding the province may need to provide and the requirement for a provincial guarantee. • As the OPG SPV/Trust will be borrowing in its own corporate capacity from the public markets, it will likely incur a higher interest cost compared to the Province's borrowing. • There is a risk that credit rating agencies may perceive OPG SPV/Trust's borrowing as debt supported by Province, impacting Province's own ratings and cost of borrowing. • If the Trust can't raise the full funding requirements, additional cash injections would be required. If the borrowing cap of $28B (in the March 1, 2017 Cabinet Submission) is reached sooner than forecast, the province may have to provide incremental funding to float the program to 2047. • Beyond 2022, when steep increases are required, there will likely be additional pressure on the province to offset a part of the scheduled increases. • Fiscal impacts will be subject to fluctuations in Ontario electricity demand, GA and interests rates in the medium-to long term.	Risk can be mitigated by: • Providing a "provincial guarantee" for the cost of borrowing. • Drafting legislation to provide assurance to OPG and investors regarding the permanence of the GA refinancing framework and the authority of the legislation to pass the legislation; and enable the Province to guarantee borrowing of the trust in the event of a market disruption. • Specifics of a guarantee are dependent on the negotiation of agreements not yet initiated. • Equity injections from the province to support OPG as the owner and manager of GA refinancing and allow OPG to strengthen the capital structure of the Trust in order to secure financing at a reasonable cost.

Electricity social programs (Enhancing Electricity Support & Conservation Programs):

Objective: Shift funding of existing and new electricity support programs (RRRP, OESP, Affordability Fund, First Nations Credit) from rate to tax base.

Risk	Level of Risk	Risk Response

Uncertainty in forecasting due to exposure to changes and/or volatility (i.e. interest rates, electricity usage patterns, and distribution costs) may result in higher than anticipated fiscal impacts for the Province.	**Risk Likelihood:** Possible
	Risk Impact: Major
	Timescale: 12 to 24 months
	
	Rationale:
	• The energy sector is complex and a number of key assumptions used as inputs into forecasting model are variables/forecasts themselves, resulting in a high inherent risk that cost estimates are inaccurate.
	• Fiscal projection is highly dependent on factors which can fluctuate from year to year, including:
	  ○ electricity usage;
	  ○ distributions costs; and
	  ○ consumer consumption patterns that may change due to extreme weather or other factors.
	• Fiscal projection is subject to knowledge of future distribution costs and dependent on submission of cost of service applications by Hydro One and LDCs.
	  ○ Enhanced RRRP may create disincentives from the eligible LDCs towards productivity and performance improvements and/or cause ineligible LDC's to drive up distribution costs to gain access to program.
		Risk can be mitigated by:
		• Development of a risk-based outlook, based on an analysis of scenarios, to determine the sensitivity and financial impact of potential changes in variables used in the forecasting models.