

Energy

Electricity Price Mitigation

Cabinet (info) Feb 15, 2017	TB/MBC Feb 22, 2017	Cabinet Feb 22, 2017	Announcement Feb 2017	LRC / Cabinet Spring 2017	Introduction Spring 2017	Effective Date July 1, 2017
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This government's commitment	"We're going to come out with what we can do [on hydro bills] before the budget," – Premier Wynne, Jan 18, 2017
	"And that's why I'm...that's why I've committed to finding more ways to lower rates, to reduce the burden on consumers, and we're going to be working on that in the weeks and the months ahead. And, in fact, that work is well underway. I'm listening to the people of the province. I'm listening to the people who run our system. And I am going to make changes because it's the right thing to do." – Premier Wynne, speech at Economic Club of Canada, Jan 19, 2017

SUMMARY OF PROPOSAL

The Ministry of Energy is seeking approval to implement the following electricity price mitigation initiatives. The approach identified below would provide **25%** (including the 8% announced in 2016) rate relief across all residential and small business **[and other?]** electricity consumers by helping the most vulnerable Ontarians through enhancements to existing support programs, smoothing the impacts of the global adjustment and working to bend the future cost curve of electricity. Initiatives for approvals include:

1. Refinancing Global Adjustment assets in order to smooth the impacts of the Global Adjustment across ratepayers over a longer period of time.
2. Exploring expanding the powers of the OPG or using other mechanisms to take on responsibility for management of deferred ratepayer Global Adjustment costs, including borrowing up to \$2.2B in 2017/18 and \$XB by **[end date]** and **[other powers/responsibilities including authority to establish subs]**.

3. [possible Supports for Class B – conservation efforts]
4. Enhancing electricity support programs and shifting the costs of those programs from rate payer funded to government funded:
 - Enhance [details based on option] the Rural or Remote Electricity Rate Protection (RRRP);
 - Expand the Ontario Electricity Support Program (OESP);
 - Establish a Local Distribution Company (LDC) Affordability Fund; and
 - Delivery charge relief for on-reserve First Nations customers.
5. Ongoing activities to bend the future cost curve of electricity:
 - Ontario Energy Board (OEB) – Identify opportunities for OEB red-tape reduction and future LDC efficiencies and rates.
 - Independent Electricity System Operator (IESO) – Modernize Ontario's electricity market through electricity Market Renewal initiatives.

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

This includes policy approval to amend the legislated authority of the OPG to include XX.

Terms you need to know

- **Global Adjustment (GA)** – Amount that accounts for differences between the market price of electricity and rates paid to regulated and contracted generators and for conservation programs. The GA is collected from all electricity ratepayers in Ontario.
- **Local Distribution Companies (LDCs)** – Local electricity utilities, responsible for distributing power from transmission lines to people's homes (e.g., Hydro Ottawa, Toronto Hydro, etc.)
- **Delivery charge** – The costs of getting electricity from generating stations to homes and businesses. Appears as one line on electricity bills, includes three components:
 - Transmission: The costs of moving electricity across high voltage lines from generating stations to the distribution system. This cost is recovered through a variable charge that is approved by the OEB.
 - Distribution: The costs of moving electricity from the transmission system to homes and businesses. Depending on the LDC, distribution costs makes up about 60% to 80% of the Delivery line. This cost is currently recovered through both a variable charge and fixed charge, approved by the OEB. Distribution rates are moving to a fully-fixed charge over next 5 years.
 - Line Loss: The costs to recover electricity that is lost as heat when it is delivered over a power line.

- **Regulated Price Plan (RPP)** - Since April 2005, the Ontario Energy Board (OEB) has administered an electricity price plan that provides stable and predictable electricity pricing, encourages conservation and ensures the price consumers pay for electricity better reflects the price paid to generators. This pricing plan is known as the Regulated Price Plan (RPP). About 5 million residential consumers, small businesses and farms are eligible for the RPP.
- **R1 customer** -
- **R2 customer** -
- **Ontario Power Generation (OPG)** – A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates approximately two thirds of Ontario’s electricity.
- **Ontario Energy Board (OEB)** – A Crown Agency that independently regulates Ontario’s electricity and natural gas sectors in the public interest. Implements an open and transparent process to allow for stakeholders to comment on various items.
- **Independent Electricity System Operator (IESO)** – An independent capital corporation that operates the transmission electricity grid in Ontario. Balances the supply of and demand for electricity in Ontario and then directs its flow across the province’s transmission lines, including interties with other jurisdictions.
- **Class A Consumer** – large commercial and large industrial consumers with average peak load size above 3 MW, subject to eligibility. Class A consumers pay GA based on their electricity consumption during the five highest peak demand hours during the year.
- **Class B Consumer** – commercial, institutional and small industrial consumers, typically with load size between 0.05 – 3 MW. Class B consumers pay GA as a flat rate applied to electricity consumption. Class B consumers include those that choose not to become Class A.

What is the expected cost to government?

The proposal would cost \$200M in 2016/17 for the LDC affordability fund. The combined impact of the initiatives that would begin in 2017/18 is expected to be \$652M in 2017/18, growing to \$709M in 2018/19 and beyond. This represents an additional pressure on the plan.

Fiscal Impact (\$M)*	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements**	-	454	450	446	444
Ontario Electricity Support Program, including the 50% Enhancement (Note: The fiscal impact does not include adding new categories to the OESP matrix. ENERGY will work with the OEB to forecast what the total costs could be)	-	178	239	290	334
On-Reserve First Nation Delivery Credit	-	20	20	20	20
LDC Affordability Fund***	200	-	-	-	-
Total	200	652	709	756	798

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

[Placeholder for the cost/risk of refinancing GA] The impact of refinancing the GA is unknown at this time. The intent is to establish a structure where the entity that takes on the GA and the debt required to smooth rates over a period of time would not fall under government control and would therefore not be consolidated on the government's books. However, until the structure has been determined and tested, it is unknown if the overall debt would be accounted for through the government's fiscal plan or would be outside of government.

There is inherent risk in the financial summary because the calculations are highly dependent on estimates for the cost of borrowing and xxx. This is similar to the initial projections for the cost of the 8% rebate in September 2016. At the time of initial approval, the cost projection for the 8% rebate was \$1B for the first year. The projections were refined over the following two months, resulting in a revised estimate of \$1.2B for the first year.

How will the changes be communicated?

On February XX, the Premier will have a high profile announcement additional relief to reduce electricity costs for Ontarians. To coincide with this event, there will be a News release and backgrounders, a public education campaign to raise awareness of the rebates and initiatives in place to reduce electricity bills, and an Ontario website that includes all the programs and initiatives that the government is doing to reduce electricity costs.

Following the Premier's announcement, the Minister of Energy will address the Economic Club and echo these enhancements. Key messages will be positioned as building on the January 2017 8 per cent HST rebate and helping the most vulnerable.

CABINET OFFICE ANALYSIS

The proposal aims to provide further rate relief to Ontario electricity ratepayers. The proposal builds on earlier electricity rate mitigation initiatives, including the ending of the Debt Retirement Charge (DRC), the 8% rebate on all RPP electricity bills, the enhancement of RRRP and the expansion of ICI for industrial consumers all announced in September 2016. Through this proposal the cumulative rate relief (including the 8%) for an average household in 2017 would be 25%.

Since 2010, electricity prices have risen considerably in Ontario, particularly for families and small businesses. Contributors to the price increase are investments in a cleaner and renewable energy system (e.g. the phasing out of coal) and commitments to refurbishing nuclear facilities. The price of electricity is among the highest priority items for Ontarians. Prices are forecast to continue to increase as additional renewable energy generation is brought online. Ontario currently provides rate mitigation to various electricity consumers through a combination of tax-based and rate-based programs. Rate-based programs are funded by shifting costs from one electricity consumer group to another.

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

Under the proposal, all electricity consumers will benefit from one or more of the proposed electricity price mitigation initiatives.

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

The GA accounts for the fixed costs, including capital costs, of running Ontario's generation fleet, as well as the cost of conservation programs. The GA is instrumental in maintaining a reliable electricity system by ensuring that sufficient generating capacity is available. The GA has risen over the past decade as the province has entered into renewable energy contracts, invested in greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities.

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

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

short term (approximately XX years) by borrowing money, but increases over the long term at X% each year – up to a maximum of XX above the true cost of GA – until the borrowed money is paid back over an XX year financing period.

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

[explain assumption of no impact to the fiscal plan, dependent on legal analysis and accounting treatment, pending final proposal]

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

Eligible for the 8% rebate (< 50 kW or < 250,000 kWh/year)	Not eligible for the 8% rebate (> 50 kW or > 250,000 kWh/year)
- Residential Regulated Price Plan consumers - Residential retail consumers - Multi-unit residential buildings and other facilities used as residential rental units - Long-term care homes and school residences - Regulated Price Plan eligible farms - Small businesses - Coffee / snack retailer - Convenience store - Apparel store - Hair salon - Small insurance office	- Class A consumers - Manufacturer - Large grocery store - Mines - Auto assembly plants - Class B consumers (except farms that have opted out of the Regulated Price Plan) - Commercial offices (low rise) - Hotel - General warehousing

2. Mechanism to deliver the deferral of GA costs

In order for the GA refinancing not to impact the current fiscal plan, an entity that the province does not govern would be needed to finance and administer the debt. This entity would need to meet Government Business Enterprise accounting treatment. Through this proposal, the Ministry proposes to leverage the Ontario Power Generation (OPG) and restructure it through legislation to be able to assume this responsibility.

In order for [the new subsidiary of OPG] to meet the Government Business Enterprise accounting control, the following conditions need to be met:

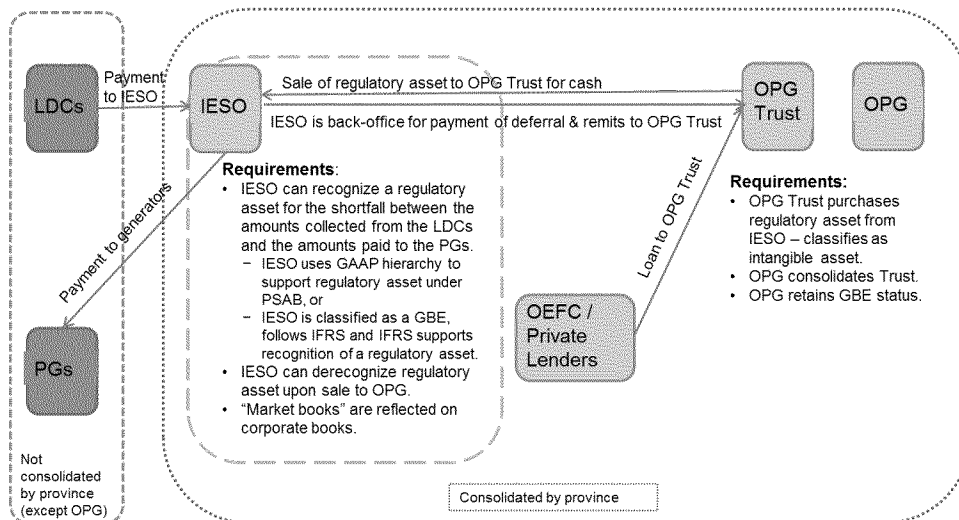
- separate entity with power to contract, sue and be sued,
- delegated financial and operational authority to carry on a business,
- sells good and services to individuals and organizations outside of the government reporting entity as its principal activity,
- maintain operations and meet liabilities from revenues received from sources outside of the government reporting entity.

[description of rationale for OPG plan, necessary steps, details on Governance, financing, recovery and contractual/legislative considerations]

Analysis is not complete; several requirements remain high risk in order to achieve a satisfactory path forward:

- Complexity of the structure, including the number of entities involved increases risk in and of itself.

- If all requirements can be met, an accounting analysis can be supported that results in: (1) no fiscal impact; and (2) no increase in net debt.
- IESO requirements – IESO mgmt, KPMG (Energy advisor and IESO auditor), OPCD and EY (OPCD advisor) are evaluating accounting risks:
 - IESO can recognize a regulatory asset for the shortfall between the amounts collected from the LDCs and the amounts paid to the PGs;
 - IESO uses GAAP hierarchy to support regulatory asset under PSAB; or
 - IESO is classified as a GBE, follows IFRS and IFRS supports recognition of a regulatory asset.
 - IESO can derecognize regulatory asset upon sale to OPG; and
 - “Market books” are reflected on corporate books.
- OPG requirements – OPG mgmt, PwC (OPG auditor), KPMG (Energy advisor), and OPCD are evaluating accounting risks:
 - OPG Trust purchases regulatory asset from IESO – classifies as intangible asset;
 - OPG consolidates Trust; and
 - OPG retains GBE status.
- No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities.



The ministry continues to work with TBS, MOF, and OPG on the appropriate structure and will report back to Cabinet with the proposed structure for approval.

3. [Potential Class B supports]

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

RRRP Enhancement (Delivery Charge Relief):

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

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

In 2016 the OEB made a ruling that all LDCs need to move to fixed distribution charges as they felt it establishes a fairer way to recover the costs of providing distribution service and provides greater revenue stability for distributors, which will position them for technological change in the sector, remove any disincentive to promote conservation, and help with their investment planning. The shift to this fixed rate will occur over a period of time, depending on the LDC but is expected to be complete by 2019/20 for all LDCs except Hydro One who is expected to transition by 2022/2023 due to unique circumstances. Once all LDCs move to fixed distribution rates, LDCs will be apply to the OEB for the fixed rate to increase in order to match inflation [or other circumstances? tbc].

The ministry proposes to provide support on the delivery portion to those most in-need by:

- moving the RRRP from rate payer funded to a government funded program
- Harmonize the fixed distribution rates at \$38/month for R2, R1 and the next seven highest cost LDCs (enhanced benefits for ~280k consumers and new cost decreases for ~420,000 consumers)

For this portion of the proposal, targeted RRRP consumers would see additional savings in the range of \$12-\$75 on their monthly bill and cost to fiscal plan would be \$454M in 2017/18.

Ontario Electricity Support Program (OESP) Expansion:

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

The ministry is proposing to:

- move the OESP from the rate payer funded to government funded; and
- Increase the existing benefit scales by 50% and expanding who the benefits are provided to.

For this portion of the proposal, OESP consumers would see additional savings in the range of \$XX-\$XX on their monthly bill and cost to fiscal plan would be \$178M in 2017/18.

LDC Affordability Fund

The existing Home Assistance Program provides eligible low-income customers with energy efficiency upgrades (such as new energy efficient appliances or XX) and education, at no cost, to help improve the energy efficiency and comfort of their homes. Program eligibility is aligned with other low-income support programs such as the OESP and the program is delivered by LDCs.

A low income household is defined as XX. Some electricity customers who struggle to pay their electricity bills do not meet the definition of a low-income household and therefore are not eligible for the Home Assistance Program.

The ministry is proposing to:

- Establish an LRC Affordability Fund in 2016/17 that would help struggling customers who do not qualify for low income programs and cannot upgrade their homes without financial assistance. The Fund would be funded through by the government with a one-year cost of \$200M in 2016/17. The program would be offered through LDCs and would run until the funding runs-out, expected to cover approximately xxx households over xx period of time.
- Over time the Fund could help targeted customers get back on track with their bills and also avoid disconnection costs
- The Fund would be targeted to customers on an as-needed basis (vs. widely marketed as an open-intake program)

Eligibility could involve a number of factors and metrics:

- Do not meet the definition of “low-income”;
- May have triggered action by an LDC collection department (e.g., are in arrears, have been placed on one or more payment plans, are due to be disconnected, etc.)
- Priority could be given to eligible customers in electrically-heated homes, or other unique circumstances; an
- Require financial assistance to pay for energy efficiency measures.

[Unclear if the \$200M would be an expense in 2016-17 given it may be set up as a trust which could then come back on the books through consolidation. Details about \$200M versus another number to ensure the desired outcome.]

On-reserve First Nations Delivery Credit

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

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

The ministry is proposing to:

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

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

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

OEB –opportunities for OEB red-tape reduction and future LDC efficiencies

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

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

Opportunities:

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

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

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

Current IESO Market Renewal initiatives include:

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

Changes related to IESO’s Market Renewal initiatives, reflected in HOEP and uplifts, are estimated to save up to \$300 million per year, starting in 2021, leading to a reduction of:

- About \$1/month or less than 1% at current retail prices for a typical residential bill;
- About \$1.30/MWh at current all-in prices for industrial and SME electricity consumers.

Expected Impacts of the Proposal on Electricity bills:

The expected impact of this proposal to an average residential customer bill in July 2017 is a 25% decrease. This includes the 8% rebate that came into effect on January 1 2017. The expected impact to an average Class B commercial consumer is **XXX**.

[update this table based on final proposal]

Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	163	172	175	178	189	187
Total Bill (excludes HST)	145	153	155	158	168	165
Impact of GA Financing		-27	-27	-27	-34	-29
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		123	126	128	131	133
8% rebate		-10	-10	-10	-10	-11
HST		16	16	17	17	17
Revised Bill (includes HST)	163	129	132	135	137	140
Year-over-Year Change		-21%	2%	2%	2%	2%
Change from Forecast		-25%	-25%	-24%	-28%	-25%

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

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

[include ENERGY caveats on calculations]

Stakeholder Considerations:

General public - complexity of energy system and ability of the public to understand current and recent changes

Residential and Small Business

Industrial and Commercial Consumers

Tenants

Northern communities

First Nations

eNGOs

[others]

Delivery:

The initiatives in this proposal would be announced in February 2017, with the price mitigation measures in effect for July 1, 2017. The 2017 LTEP will be released to the public in [April 2017] and would reinforce/integrate with this proposal.

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

[details]

2. Mechanism to defer GA costs

[details]

3. Class B supports

[details]

4. Enhancing Social Programs

RRRP Enhancement

New legislation and regulations would be required to establish this program. OEB estimates that the implementation would take at least six months after finalizing regulations.

[legal authority and OEB's role in setting rates and incentive efficiencies, options could impact OEB rate-setting processes and create disincentives towards Hydro One productivity and performance improvements. A mechanism will need to be created to ensure that all parties are aligned in the yearly forecasting and costing of the program.]

OESP Enhancements

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

[the OEB has been collecting program funding in excess of program costs and has accrued a positive balance – would need to address this in moving the program to the tax base]

[need to confirm that the credit is not treated as taxable income]

The proposed changes will take time to implement as they would require changes to the central system [describe] and the LDCs' billing systems.

[Risk] - The OESP matrix would no longer follow the Low Income Measure (LIM) which would put pressure on the OESP and other provincial programs.

New LDC Affordability Fund

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

ENERGY proposes that one or more LDCs would administer the new program because LDCs have over 10 years of experience in delivering conservation programs, including experience specific to contracting for programs that target low-income customers. Individual LDCs would then be best positioned to identify and target their customers who are most in need.

LDCs would apply for funding to the Fund administrator, to offer energy efficiency measures to those customers that meet the targeted eligibility criteria. Recipients could receive measures ranging from \$3,000 to \$5,000 per customer, at no or minimal cost. For example, measures available in the Home Assistance Program include:

- Energy-saving light bulbs (LEDs); power bars; energy efficient window ACs, refrigerators, freezers, dehumidifiers; low-flow showerheads, hot water blankets, pipe wrap and faucet aerators (in homes with electric water heating); and
- Programmable thermostats, weather stripping, insulation (in homes with electric heating).
- Consideration could also be given to including cold climate air source heat pumps for electrically heated homes, which can range in cost from \$7,000 to \$13,000.

As an illustration, with \$200 million, the estimated reach of the fund could be 15,000 to 65,000 households, depending on measures and uptake.

On-Reserve First Nations Delivery Credit

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

The rebate would appear on customer's electricity bills as [specifics still tbd].

[risk] There is a risk that either non-status Indigenous communities without reserves or Metis could challenge the program from a legal perspective. This program would be aimed at the specific circumstances of reserve-based communities and would be generally ameliorative, which means the program would be shielded from this type of legal challenge. The relationship risk would remain.

5. Ongoing Efforts to bend the cost curve of electricity

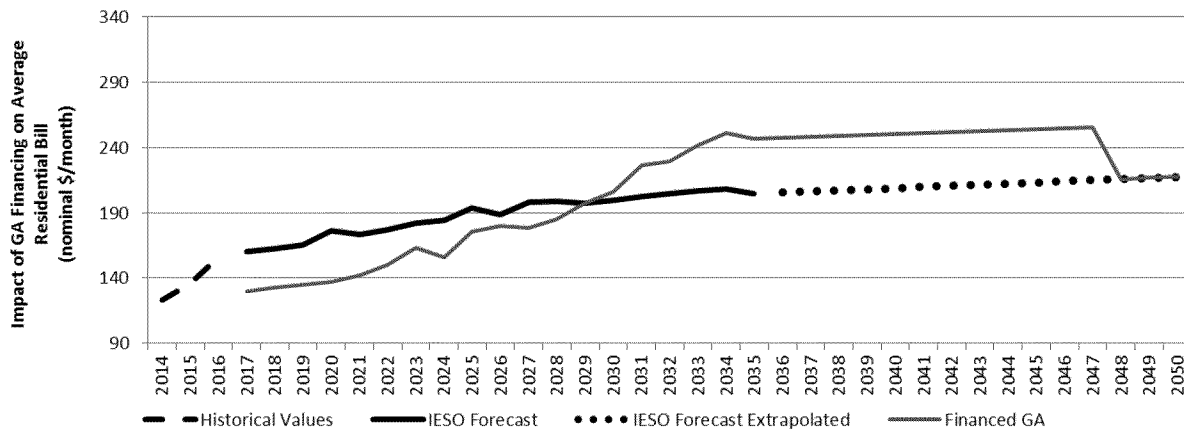
[implementation details]

Risks and Considerations:

Future Impacts to Electricity Rates

Borrowing money to defer GA costs for ratepayers would lower costs in the short term but result in a more rapid rise in electricity prices in the future. Electricity prices would increase to an estimated \$46-51 above the actual cost of electricity on an average monthly bill over

the next 12-17 years). The proposal may create the expectation that the government is committed to reducing or holding constant the absolute cost of electricity for consumers.



The GA asset refinancing is structured and delivered in a similar fashion to the former Debt Retirement Charge (DRC). It is likely that the government will be criticized for replacing the DRC with a new, larger stranded debt. The debt retirement charge was removed from residential bills in 2016 and will be removed for remaining customers in 2018.

Future repayment cost estimates are based on both variable interest rates and anticipated number of customers. Programs aimed at expanding/encouraging energy self-generation, storage and conservation may result in homes and businesses reaching net-zero draw on the energy system, ultimately meaning a lower number of customers. A lower number of customers would mean increased repayment costs for remaining customers (possibly a very high percentage of their electricity bill). Possible mitigation is xx

Not all generating assets will continue operations at the end of their contract. Nuclear licensing or low demand conditions would mean that some generators will shut down at the end of their contract. Future ratepayers would be paying for these assets that no longer produce power.

Economic Impacts

Higher ratepayer costs in the future could impact the economy by XX.

Provincial Credit Rating and Borrowing

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

Rating agencies and investors in the Province's debt may view this borrowing as an obligation of the Province, regardless of accounting treatment. Depending on the magnitude of the debt incurred, the Province's borrowing cost may be impacted.

[placeholder - Only XX% rate relief can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates beyond this amount is dependent on increased borrowing. / additional risk CLB opinion]

[link to the DRC - How does this proposal compare in terms of magnitude and any impacts on borrowing cost when it was 'retired']

[No discussion with OAG; in previous Annual Reports, the OAG has raised concerns about the appropriateness of recognizing rate regulated assets and liabilities]

Fiscal Pressure

This proposal does not align with the 2016 Budget fiscal plan and there are no proposed offsets identified. The proposal does not include a scheduled review period or an end date, resulting in an ongoing fiscal pressure that could only be removed by xx [tbc depending on final proposal]. The cost projections in this proposal are highly sensitive to interest rates and other assumptions.

The extent of fiscal pressures is also dependent on other factors (e.g. the Auditor General could reverse the accounting treatment; impact would be XXB on the fiscal plan in XX year). The role of the OPG external auditor would be xx.

Mechanism or Plan for OPG

- Accountability
 - Need to balance independence with new powers provided by legislation.
 - accountability to the government or the public, amount of government control of the entity, including future rate increases.
- New structure
 - Transition from delivery agency to financial agency – not the current expertise of OPG. Possible dilution of OPG focus on current high priority responsibilities (electricity generation and nuclear refurbishment).
 - New agency/structure would be unique to Canada – uniqueness reduces likelihood of all risks being known/mitigated. Highly specialized expertise would be required.
 - Connection to BPS compensation framework/lack of national comparator.
 - Unknown transaction, admin, consultant costs.
- Debt
 - Opportunity for significant shifting of the Ontario's electricity sector over the lifespan of the repayment (30 years). Through sector/policy/government position shifting, possibility of new entity/structure abandoning debt and Ontario having to take a write down.
 - Risk transfer / portion of debt that Ontario would be responsible for would be the higher risk portion
 - Repayment plan highly dependent on interest rates (e.g. 1% increase in interest rate = 10% increase in cumulative interest cost, 2% increase = 20%)

- Public perception/reaction (could be seen as similar to the process preparing Hydro One for IPO)

Legal Risk – constitutionality of financing the GA

[Section is a placeholder – to be refined based on final submission]

In summary:

Based on our understanding of the February 9, 2017 proposal, it creates a refinancing structure which results in future consumers paying disproportionately more of the GA cost and therefore cross-subsidizing near-term consumers. This means that it is at a moderately high constitutional risk of resulting in an unconstitutional tax.

If, however, future consumers who cause the need for and benefit from this future capacity would share proportionately in the cost of financing the required assets, the proposal would pose only a low constitutional risk.

The lowest risk approach to financing the GA would be to spread the costs of the assets financed by the GA over their useful life expectancy, so that ratepayers today and in the future share proportionately in the costs of the assets from which they benefit and cause the need for. Normal accounting rules can be used for dealing with financing costs and the change in the future value of money. The accounting based on the value and useful life expectancy of the assets comprising the GA would determine how much can be reasonably removed from the current GA and the period in which it should be recovered.

MAG pointed out that the deck that they saw makes no connection between the life of the assets that the GA pays for and the GA refinancing term. Although we have been solving for numbers, the legal risk is mitigated when our products include the narrative around the useful life of assets and inter-generational fairness. If ever challenged, we would need evidence to back up that narrative.

MAG also noted that the legal risk profile shifts depending on the term and quantum of the debt and the life expectancy of the assets that the debt is associated with so as the details our plans become more certain, we should re-engage MAG for additional consideration.

Implementation

Ability of LDCs (and others) to implement all of these changes simultaneously

Industrial and Commercial sector

The impact of cap and trade has been added to electricity bills as of January 2017. Class B consumers have raised concerns about the cost of electricity and its impact on their business competitiveness.

If Class B electricity consumers, such as commercial and small industries, do not receive the benefit of GA Smoothing (i.e., because it is only targeted to RPP consumers) – consideration could be given to provide measures to off-set electricity costs.

Alternative Options Considered:

- 1) Status quo – in the absence of this proposal electricity rates are forecasted to increase in the short term by x and in the long term by xx. Could include additional public communications about existing electricity price mitigation initiatives.
- 2) Provide X% rate relief across all consumer classes (residential, small business, commercial and industrial funded from the fiscal plan). The projected cost would be approximately \$XXB/year.
- 3) Capping the amount an LDC can bill consumers for distribution service at a specific cost, with distribution costs that exceed this cap covered by the support from the fiscal plan. This would have been temporary until the completion of the OEB-mandated move to completely fixed distribution costs (scheduled for 2019, 2020-2022 for Hydro One).
- 4) Procuring additional hydroelectricity from Quebec, would require upgrade the transmission infrastructure
- 5) Using the IESO and/or creating a new special purpose entity, independent from the Province that would be dedicated to GA refinancing.
- 6) Capping electricity rates at 1.7% for 3-to-years and capping the salaries of hydro executives.
- 7) Expanding access to natural gas for home heating by increasing funding to the natural gas expansion program by \$100 million. This could also include additional support to address conversion costs (i.e., switching away from electric heating to natural gas).

Linkages:

Long Term Energy Plan

[details]

Electricity Rate Mitigation Initiatives

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

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

Debt Retirement Charge

The government also recently ended the electricity Debt Retirement Charge (DRC) on residential users earlier than planned, as of January 1, 2016, and put in place the low-income targeted Ontario Electricity Support Program (OESP), effective 2016.

Ontario's Climate Change Action Plan (CCAP)

The CCAP, released in summer 2016, reiterated the 2016 Budget commitment and stated that Ontario intends to invest in initiatives that both reduce greenhouse gas (GHG) emissions and ensure that the net impact of cap and trade would not result in an overall increase in electricity costs for commercial and industrial consumers, and that there would be a modest benefit of up to \$2 per month, on average, to residential consumers.

Specifically, the CCAP committed to “use cap and trade proceeds to offset the cost of greenhouse gas pollution reduction initiatives that are currently funded by residential and industrial consumers through their bills.” Redirecting cap and trade auction proceeds to lower the cost of electricity could offset investments/initiatives that provide new GHG emissions reductions (e.g., non-emitting generation and conservation programs).

[AG report on LTEP projections]

[link to new climate change agency and delivery of programs]

Other Jurisdictions

[to be inserted]

PROPOSED CABINET MINUTE

APPENDIX A: Multi-Year Action Plan

Below is an extract taken from the MYAP which demonstrates the overall strategic plan for the initiative that this policy submission supports. This excerpt represents the approved plan to date, and may not reflect the specific policy and delivery timelines identified in the Cabinet Minute above.

→ Ongoing Activity

Policy Approval

▲ **Delivery Milestone**

Heightened Management

Heightened Management: Management Attention

(b) Management Attention

1000 **Wundtstufung**

Abstract

MYAP Slice 2017-02-17

[illegible]