

Energy

Electricity Price Mitigation

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

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

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

- reducing projected after-tax electricity costs for a typical customer consuming 750kWh per month in 2017 by up to XX%
 - bill increases will be kept in line with the Consumer Price Index (CPI) until the end of 2021
 - from 2022 onwards, bills will increase at a rate that ensures recovery of the accumulated debt by 2048.
2. Subject to legal, accounting and financial risk assessment, exploring the expansion of powers of the Ontario Power Generation (OPG), the Ontario Energy Board (OEB), the Independent Electricity System Operator (IESO), Ontario Financing Authority (OFA), and Ontario Electricity Financial Corporation (OEFC) and using other mechanisms, including putting 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 deferred GA costs.
 3. Exploring additional rate mitigation initiatives targeted at specific populations, including options for Class B electricity consumers (e.g., ending DRC early, lowering the ICI threshold, etc) and for tenants that are not sub-metered and report back to Cabinet and TB/MBC with options in winter 2017.
 4. Enhancing electricity support programs and shifting the costs of those programs from rate payer funded to government funded:
 - Broadening the Rural or Remote Electricity Rate Protection (RRRP), including harmonizing distribution cost for customers with the highest distribution rates;
 - Expanding the Ontario Electricity Support Program (OESP);
 - Establishing a new one-time Affordability Fund in 2016/17; and
 - Eliminating the delivery charge for First Nations customers on reserve.
 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: maintaining a reliable electricity system, Ontario's commitment to reducing the impacts of climate change and commitment to achieve greenhouse gas (GHG) reduction targets.

This includes policy approval to amend the legislated authority of the OPG and IESO to enable appropriate cost recovery and settlement mechanisms and of the OEB to ensure appropriate regulatory oversight. In addition to policy approval, the proposed mechanism to partially defer the GA costs will require legal, accounting, and financing risk analysis and confirmation. This analysis may not be completed until the proposed legislation is finalized.

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.
- **Customer classification for Hydro One** – Customer service types are determined by the kind of electricity service as well as by density – how many customers there are in the area and the number of customers per kilometre of line. The more customers there are in the area, the lower the cost to serve. R1 customers are considered 'medium density' customers and R2 are considered 'low density customers'.
- **Ontario Power Generation (OPG)** – A business corporation owned by the province that owns and operates generation assets, including nuclear and hydro, and generates almost half 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 electricity market 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. On July 1, 2017 the threshold for Class A will be lowered to 1MW.

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

What is the expected cost to government?

The current estimate for the proposal is \$200M in 2016/17 for the Affordability Fund (a one-time cost). The current estimate for the combined impact of the initiatives that would begin in 2017/18 is expected to be \$660M in 2017/18, growing to \$731M in 2018/19 and beyond. This represents an additional pressure on the plan. These estimates are based on variable inputs such as future energy consumption of various consumer groups.

Fiscal Impact (\$M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	532	547	561	577
Ontario Electricity Support Program, including the 50% Enhancement & New Matrix Categories	-	186	261	325	375
On-Reserve First Nation Delivery Credit	-	20	20	20	20
Affordability Fund**	200	-	-	-	-
Total	200	738	828	906	972

The impact of moving program funding from rate payer funded to government funded would result in approximately \$2 savings/month for a typical residential (a Toronto Hydro customer consuming 750kWh per month) electricity bill, ranging up to approximately \$XX-XX in savings for a Northern, rural customer with greater need.

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

Fiscal Impact (\$M)	2017-18	2018-19	2019-20	2020-21	2021-22
Subtotal - moving social programs to government-funded	200	738	828	906	972
GA Refinancing	2,334	1,930	2,114	2,514	2,211

Cumulative total - Bills Lowered by , RPP Only*	2,534	2,668	2,942	3,420	3,183
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The impact of refinancing the GA is unknown at this time. The intent is to establish a structure in which the GA deferral is recorded as an asset by the government, supported at its foundation by the fact that the legislation to defer the GA is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG would ultimately take on the risk and responsibility of financing the deferral through a combination of an equity investment by the Province and external financing. Such a structure would result in increased debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that external debt, increased net investment in OPG, and increased earnings of OPG. Until the structure has been fully developed, which includes development of the legislation and assessing its impact on the accounting analyses, it cannot be confirmed that the amounts deferred would not increase the government's annual deficit (or reduce its surplus). It should be noted that one of the requirements of the structure is that the legislation be written to avoid the possibility of being revoked with wording to ensure the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from the private lenders is unknown at this time. Based on the stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province.

There is inherent risk in the financial summary because the calculations are highly dependent on estimates of the total consumption and bills of customers eligible for the RPP, the cost of borrowing, electricity demand and electricity market conditions. In addition, under the proposal, electricity prices would increase to an estimated \$XX above the actual cost of electricity on an average monthly bill over the next 12-17 years. The public may expect that the government is committed to reducing or holding constant the absolute cost of electricity for consumers in the longer term. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's ability to address electricity rate concerns in the future.

How will the changes be communicated?

On March XX, 2017, the Premier will make a high profile announcement of 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 undertaking to reduce electricity costs.

On March XX, 2017, 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% 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) for residential consumers, the 8% rebate on all RPP-eligible electricity bills, the enhancement of RRRP and the expansion of ICI for industrial consumers (all announced in September 2016). The proposal is projected to provide up to 25% in rate relief (including the 8% announced in 2016) for a typical residential consumer (i.e., based on a Toronto Hydro customer consuming 750kWh per month in 2017).

Since 2010, electricity prices have risen considerably in Ontario, particularly for families and small businesses. Ontario's electricity prices are among the highest of Canadian jurisdictions, but are comparable to neighbouring US jurisdictions. Primary contributors to the price increase in Ontario are new investments in generation and transmission. 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 and nuclear units are refurbished. 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.

Electricity bills contain several line items. The electricity consumption line breaks down consumer usage into the different periods by price (off peak, peak, mid peak). The delivery line covers the cost of getting electricity from generating stations to homes and businesses. There are three components to the delivery line: transmission (i.e., moving electricity from generating stations to the distribution system), distribution (i.e., moving electricity from the transmission system to homes and businesses) and line loss (i.e., costs to recover electricity that is lost as heat when it is delivered over a power line). The distribution charge 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 the next 5 years. The efficiency and performance of individual LDCs also impact the delivery costs for consumers.

Ontario produces and publishes a Long-Term Energy Plan (LTEP) every three to 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 by July 1, 2017. The possible supports for Class B consumers and the specific implications for tenants are still undergoing analysis, and final recommendations will be presented to Cabinet and TB/MBC by March 2017.

1. Refinancing Global Adjustment in order to defer ratepayer costs

The GA accounts for the difference between generation supply costs (contracted and rate-regulated) and the market clearing price, helping to recover fixed costs, including capital costs, of putting in place and 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 and invested in greenhouse gas (GHG) emissions-free renewable and nuclear generation facilities, and due to excess capacity.

Some of the contracted generation assets are expected to have useful lives that extend 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 can provide benefits to the electricity system over many years.

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 extending and re-financing a mortgage). The proposal is based on the assumption that some generation assets are expected to continue to provide residual benefit to future ratepayers beyond the term of current contracts, and that future ratepayers are expected to be able to utilize these assets and reduce the need to finance the development of new generation assets in the future. The result of this proposal is that costs to ratepayers are lowered for approximately XX years by borrowing money, but costs increase over the long term in line with the Consumer Price Index (CPI) until 2021. From 2022 onwards, rates will increase above the true cost of GA until the borrowed money is repaid fully in 2048.

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 and local distribution companies (LDCs).

Accounting, financial and legal analyses are ongoing and will inform an assessment of the feasibility of this proposal. If these analyses do not support the use of the non-fiscal model described in this submission, the ministry will report back to Cabinet 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.

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 Defer GA costs

The intent is to establish a structure in which the GA deferral is recorded as an asset by the government, supported at its foundation by the fact that the legislation to defer the GA is not a reduction in the GA, but rather a deferral of the GA to be collected at a future time. OPG would ultimately take on the risk and responsibility of financing the deferral through a combination of an equity investment by the Province and external financing. Such a structure would result in increased debt of the Province (to finance the equity injection in OPG), increased interest on debt related to that external debt, increased net investment in OPG, and increased earnings of OPG. Until the structure has been fully developed, which includes development of the legislation and assessing its impact on the accounting analyses, it cannot be confirmed that the amounts deferred for ratepayers would not increase the government's annual deficit (or reduce its surplus). It should be noted that one of the requirements of the structure is that the legislation be written to avoid the possibility of being revoked with wording to ensure the OPG and its debt holders would have their capital guaranteed and paid for directly by the Province if such a situation were to happen. The potential cost to government associated with providing this type of guarantee and the cost of borrowing from the private lenders is unknown at this time. Based on the stage of analysis of the accounting, legal and financing risks, there is a high risk that the GA financing will have a fiscal impact on the Province..

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

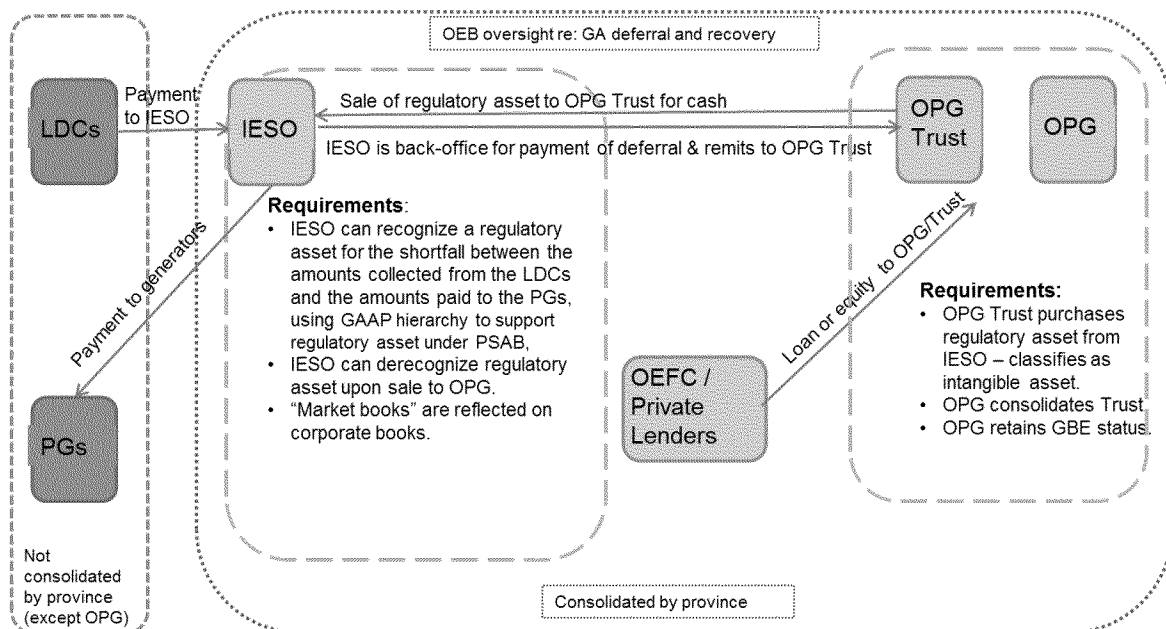
The analysis of the structure with respect to accounting, legal and financing risks is not complete; several requirements remain high risk with respect to achieving a satisfactory path forward:

- Complexity of the structure, including the number of entities involved increases risk in and of itself.
- Potential Provincial equity injection combined with a tranche of external debt.

- 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 and the independence of the OEB.

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

- Government would have no ability to control electricity prices resulting from these changes;
- Government would not know the price of private borrowing that would be required for the OPG Trust to work; and
- That the legislation that would set up this structure would need to be irrevocable.



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

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

3. Support for Class B electricity consumers and tenants

Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers, large commercial buildings and broader public sector facilities. There are several energy efficiency programs for Class B consumers, however these consumers are too large for the RPP and so do not qualify for the 8% rebate or some other support programs. The ministry is exploring additional rate mitigation initiatives for this consumer group (e.g., ending DRC early, lowering the ICI threshold) and will report back with a recommended option in March 2017.

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

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, including Hydro One 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. The OEB found that fixed distribution charges would establish 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 (expected to transition by 2022/2023 due to unique circumstances). Once all LDCs move to fixed distribution rates, the proposed distribution rate support would be reviewed at XX intervals. 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; and
- Harmonizing 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, benefitting approximately 700,000 customers).

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

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 \$186M in 2017/18.

New Affordability Fund

The existing Home Assistance Program provides eligible low-income customers with energy efficiency upgrades (such as new energy efficient appliances, energy-saving light bulbs (LEDs), power bars, and other energy efficiency measures) 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.

The low income household definition is derived from Statistics Canada's income measures. The most commonly used measure is the after tax Low Income Measure (LIM), which takes into account household size. 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 Affordability Fund in 2016/17 that would help struggling customers who do not qualify for low income programs and cannot purchase energy efficiency measures without financial assistance. The Fund would be paid for by the government with a one-year fiscal impact of \$200M in 2016/17. The program would be offered through LDCs and would be capped at \$200M. The Fund would be expected to cover between 15,000 to 65,000 households, depending on energy efficiency measures and uptake over a 1-2 year time period.
- Over time the Fund could help targeted customers get back on track with their bills and also avoid disconnection costs by assisting them to lower their bills through energy conservation.
- 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; and
- Require financial assistance to pay for energy efficiency measures.

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);
- Programmable thermostats, weather stripping, insulation (in homes with electric heating); and
- 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.

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 the wholesale electricity price and uplifts, are estimated to save at least \$200 million per year, starting in 2021.

Expected Impacts of the Proposal on Electricity bills:

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

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

Notes: 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. Above Class B estimate based on a 1 MW customer connected to Toronto Hydro, assumes delivery charge escalates as per residential forecast. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

Stakeholder Considerations:

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

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

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

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

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

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

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

Delivery:

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

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

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

This initiative is expected to take 3 to 6 months to implement following the introduction of enabling legislation.

2. 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. 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

New OESP program details would require TB/MBC approval.

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 proposed changes will take time to implement as they would require changes to the central system and the LDCs' billing systems. The ministry has worked with the CRA on the proposed changes to this program (delivery mechanism, funding source, application system, eligibility) and the outcome is that XX.

New 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 (the Fund administrator) 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 in their service territories that meet the targeted eligibility criteria.

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].

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

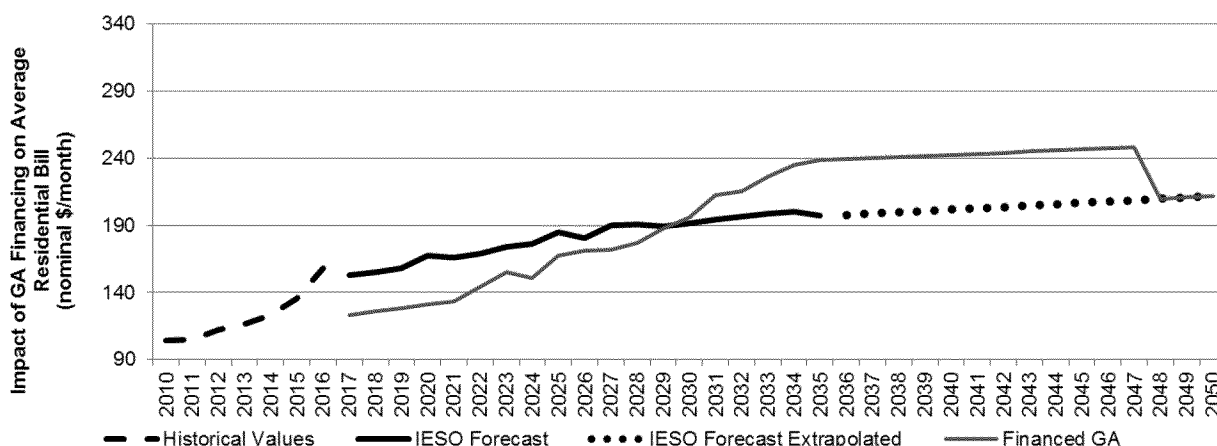
5. Ongoing Efforts to bend the cost curve of electricity

These initiatives could be directed 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.

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 substantial debt and higher electricity prices in the future. Electricity prices would increase to an estimated \$XX 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. Under the proposal, the government would not have the ability to direct further changes to the rate of repayment for GA refinancing, which would limit the government's ability to address electricity rate concerns in the future.



It is likely that the government will be criticized for replacing the Debt Retirement Charge (DRC) with a new, larger debt. The debt retirement charge was removed from residential bills in January 2016 and is scheduled to be removed for remaining customers in April 2018.

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

Not all generating assets will continue operations at the end of their contract. High capital costs, equipment obsolescence or low demand conditions 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.

Accounting and Provincial Credit Rating and Borrowing

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

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

- IESO requirements – IESO Finance, 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 using GAAP hierarchy to support regulatory asset under PSAB
 - IESO can derecognize regulatory asset upon sale to OPG; and
 - “Market books” are reflected on corporate books.
- OPG requirements – OPG Finance, EY (OPG auditor), PwC (OPG 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

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

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

Only a maximum of 18% rate relief can be justified by amortizing contracts over the useful life of the underlying assets. Reducing electricity rates up to or beyond this amount is dependent on increased borrowing.

The current GA amount paid by consumers is a regulatory charge. One of the requirements of a valid regulatory charge (as opposed to a tax) is that the person paying the charge either benefits from the regulatory scheme or causes the need for regulation. In principle,

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

Retired Supreme Court of Canada Judge Ian Binnie is engaged to provide further legal analysis of this proposal.

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, which may increase in the out years, and could only be removed by a legislative amendment.

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

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

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

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

Legislative Officers

The Ontario Auditor General (OAG) has expressed views on rate regulated accounting, which will likely be raised again upon the announcement of this suite of initiatives. The OAG has not been consulted on this proposal and will have opportunities to publicly state

her views through the Public Accounts committee in the summer of 2018 and in her pre-election report. The OAG is also undertaking a value for money analysis of the Global Adjustment, with a report expected at XXX date.

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

Mechanism or Plan for OPG

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

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

Legal Risk – constitutionality of financing the GA

To the extent that a refinancing structure which results in future consumers paying disproportionately more of the GA cost and therefore cross-subsidizing near-term consumers, there is 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.

Program Design and Implementation

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

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

Benefits for all Consumer Classes

The proposal includes some benefits for all consumer classes as well as targeted benefits to those with the greatest need. It is likely that the government will be criticized for

providing benefits to those who may not be in need (e.g., wealthy cottage communities, etc.).

Alternative Options Considered:

- 1) Status quo – in the absence of this proposal electricity rates are forecasted to increase by 10% from 2017 to 2020. To date, the province has implemented an 8% rebate on all residential bills, in addition to expanding RRRP and broadening of ICI. Could include additional public communications about existing electricity price mitigation initiatives (e.g., the DRC will be removed from industrial consumers in 2018).
- 2) Provide up to 25% rate relief across all consumer classes (residential, small business, commercial and industrial funded from the fiscal plan). The projected cost would be approximately \$3B/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) Investing in targeted social programs that could be application based in the short term, providing a more targeted benefit to those in greatest need.
- 5) Procuring additional hydroelectricity from Quebec, would require upgrade the transmission infrastructure and would be more costly than domestic alternatives.
- 6) Using IESO and/or creating a new special purpose entity, independent from the Province that would be dedicated to GA refinancing.
- 7) Capping electricity rates at 1.7% for 3-to-4years and capping the salaries of hydro executives.
- 8) 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 (LTEP) – Ontario is preparing to release a new LTEP in April 2017. These plans identify needs for investments over the shorter term, while broadly mapping out the direction of the sector over a 20 year timeframe. The LTEP will balance the principles of affordability, reliability, clean energy, community and Indigenous engagement, as well as conservation and demand management.

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. For all other consumers the DRC is scheduled to be removed by April 2018.

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. This commitment to residential consumers was met by the January 2017 8% rebate.

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

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

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

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

Monitoring

Discussion

MYAP Slice 2017-02-17

KEY ACTIVITIES	YEAR 1 (2014-2015)					YEAR 2 (2015-2016)					YEAR 3 (2016-2017)					YEAR 4 (2017-2018)					YEAR 5 (2018-2019)					GOVERNANCE AND RISKS
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
15.21 Electricity Rate Mitigation Pillar: Managing Ontario's Energy Resources																										