

Ontario's Fair Hydro Plan

Foundational Briefing
April 2017

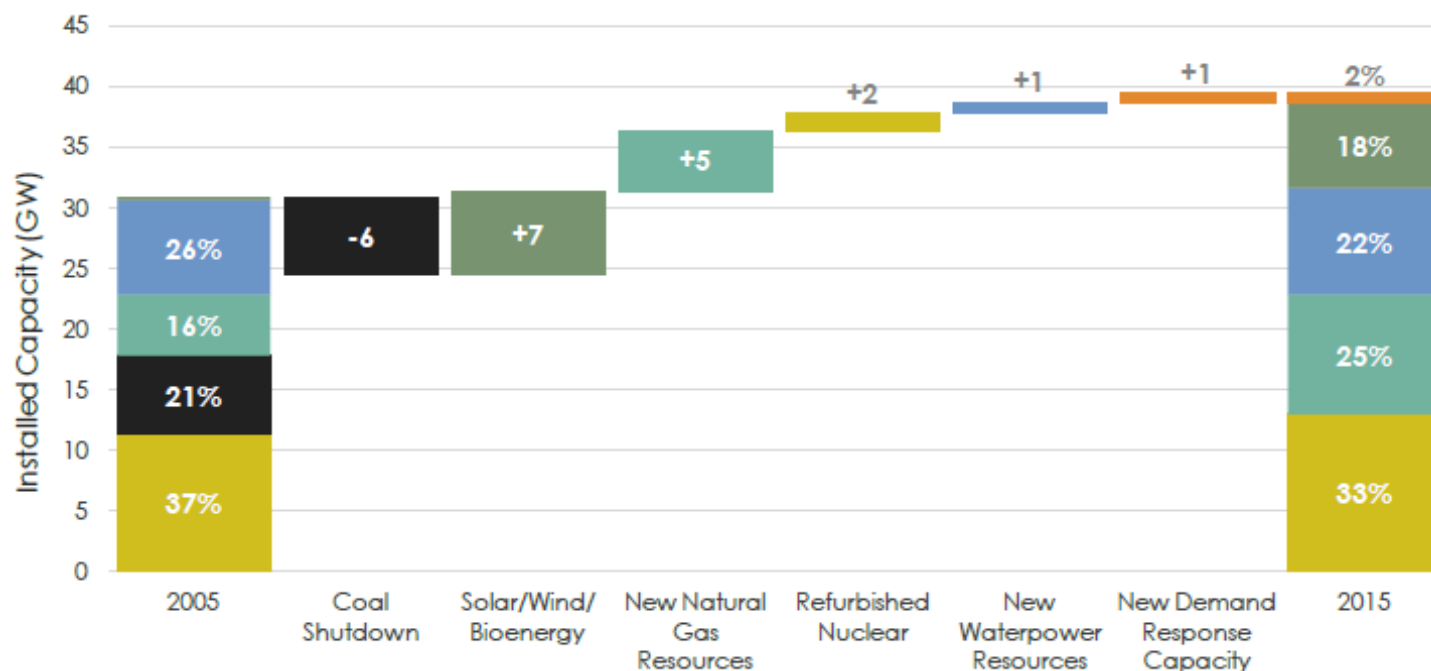
CONFIDENTIAL DRAFT

Outline

- Context
- Ontario's Fair Hydro Plan:
 1. Refinancing Global Adjustment (GA);
 2. Expanding the Industrial Conservation Initiative (ICI);
 3. Broadening the Rural or Remote Rate Protection (RRRP) Program;
 4. Enhancing the Ontario Electricity Support Program (OESP);
 5. Introducing a New Affordability Fund;
 6. Implementing a First Nations On-Reserve Delivery Credit; and
 7. Electricity Sector Efficiencies.

Context – Increasing Electricity System Costs

- In recent years, electricity costs have increased as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure (i.e., \$35 billion+ investment in cleaner generation and \$15.5 billion investment in transmission and local distribution systems).
- As shown in the chart below, in the eleven year period between 2005 and 2015, government added new generating capacity to Ontario's grid to restore reliability, replace coal and meet environmental objectives.



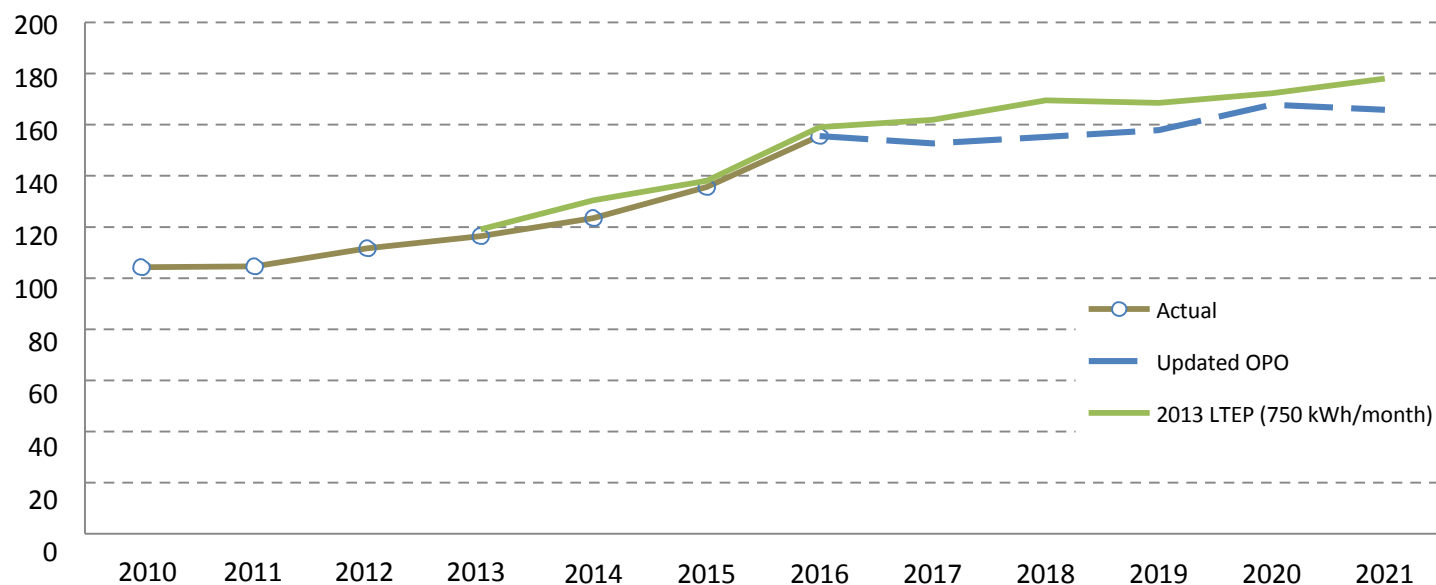
Source: IESO Ontario Planning Outlook

Context – Electricity Prices

- Electricity price increases have generally outpaced inflation. There have been several government policies that have impacted electricity prices over the past several years, including: HST, the Industrial Conservation Initiative, the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC).

Illustrative Typical Residential Electricity Bills

Historical and Forecast in \$/month



Source: IESO; Ministry of Energy

Context – Existing Rate Mitigation Actions

Recent actions to mitigate rising electricity prices include:

- Rebating an amount equal to the provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8%, effective January 1, 2017. The rebate is expected to reduce typical residential bills by \$130 annually.
- Expanding the Rural or Remote Rate Protection (RRRP) program, by providing an average reduction of \$540 annually when combined with the 8% rebate. The RRRP is intended to help mitigate the higher delivery charges paid by Ontarians living in low-density areas.
- Expanding the Industrial Conservation Initiative (ICI) by lowering the threshold from 3 MW to 1 MW and removing sector restrictions, allowing approximately 1,000 additional consumers to benefit on top of the existing 300 participants. ICI allows large consumers to lower bills by up to one-third by reducing consumption during peak hours.
- For other actions taken to bend the cost curve, please see the appendix.

Existing rate relief programs include:

- The Ontario Electricity Support Program (OESP) which provides relief directly on the bills of low income consumers who have applied and meet the eligibility criteria.
- SaveOnenergy for Home, which provides incentives for consumers to manage electricity bills through improved home energy efficiency
- The Northern Ontario Energy Credit (NOEC), which provides targeted assistance to low- to moderate- income individuals and families living in northern Ontario
- The Ontario Energy and Property Tax Credit (OEPTC), which provides low- to moderate-income individuals and families with relief on the sales tax they pay on energy and property taxes.
- The removal of the Debt Retirement Charge (DRC) from the bills of all residential consumers, effective since January 1, 2016, which saves the typical ratepayer about \$65 per year.
- In addition, the Ontario Energy Board (OEB) has implemented a province-wide strategy through the Low-Income Energy Assistance Program (LEAP) that offers emergency financial assistance up to \$600 annually, special customer service rules, and energy conservation programs to qualifying electricity and natural gas consumers.

Ontario's Fair Hydro Plan

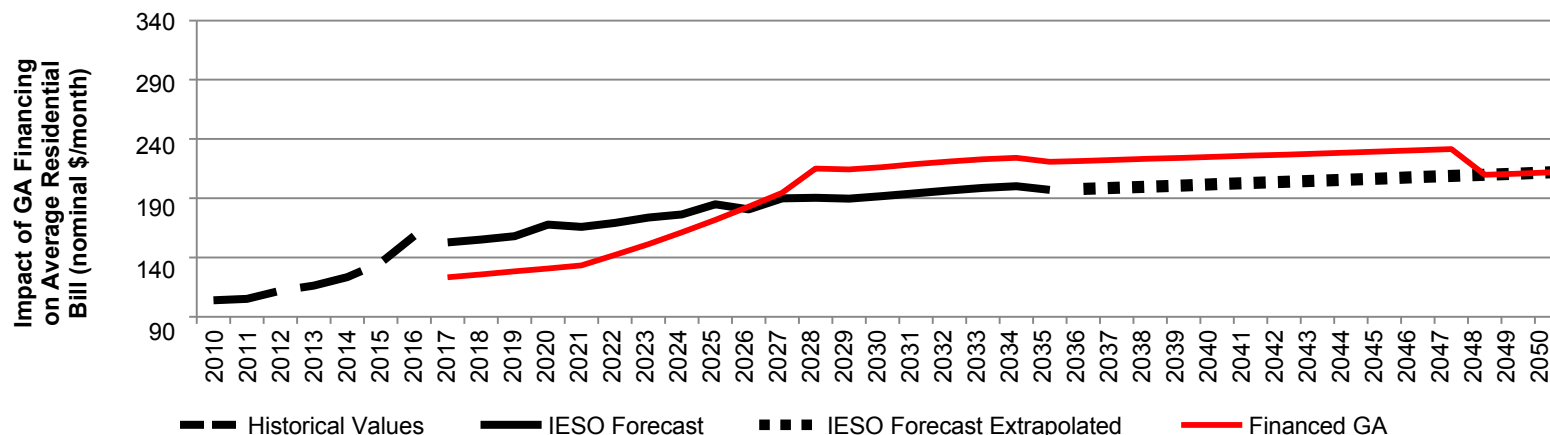
- In March 2017, the government announced Ontario's Fair Hydro Plan, which would lower bills by 25% on average for RPP eligible consumers, including residents, and most small businesses and farms, starting in the summer of 2017. Increases would also be held to the rate of inflation for the next four years.
- The initiative includes a number of measures, including refinancing a portion of the Global Adjustment over a longer period, shifting cost recovery for the Rural or Remote Rate Protection (RRRP) and Ontario Electricity Support Program (OESP) from ratepayers to the tax base, and the existing 8% rebate.
 - **Refinancing Global Adjustment:** Ontario's Fair Hydro Plan proposes to spread the cost of investment more evenly over the years ahead, providing immediate and significant relief to today's ratepayers.
 - **Expanding ICI:** The ICI expansion would allow manufacturers between 500kW and 1MW to benefit from the program, in addition to the large consumers over 1MW who are already eligible.
 - **Broadening RRRP:** The RRRP enhancement would provide delivery charge relief for the customers of the Local Distribution Companies (LDCs) with the highest delivery charges in the province, allowing a total of 800,000 residential consumers to benefit from the program, up from 350,000.
 - **Expanding OESP:** Proposed changes would increase OESP credits by 50 percent and allow more Ontarians to benefit from the program. The government would also implement a strategy to drive uptake towards 100 percent.
 - **Establishing a new Affordability Fund:** The Fund will provide energy efficiency measures to Ontarians who are not eligible for the Save on Energy Home Assistance Program, and who otherwise would be unable to make energy efficiency improvements without financial assistance.
 - **Introducing a First Nations On-Reserve Delivery Credit:** The government has proposed to eliminate the delivery charge for all on-reserve First Nations residential customers through a delivery credit.
 - **Bending the Cost Curve:** Ontario's Fair Hydro Plan includes improving sector efficiency and modernizing Ontario's electricity market, working in collaboration with the Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB).

1. GA Refinancing

- The majority of the province's electricity generators are under 20-year contracts. Many of these generators will be able to operate past their contract term.
- By recognizing that generation assets are expected to continue to provide 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.
- In the early years, a portion of the costs covered by the GA would be financed to reduce pressure on electricity ratepayers.
- In the later years, when some system costs are expected to be reduced due to continued operation of existing assets under 20-year contracts, the cost of financing would be recovered from ratepayers.
- All RPP-eligible consumers would be eligible for the reduction, including residential consumers, and most small business and farms. RPP-eligible consumers who have chosen to sign a contract with an electricity retailer would also be eligible. Actual ratepayer savings would vary due to depending on distribution company and consumption patterns.

1. GA Refinancing (cont'd)

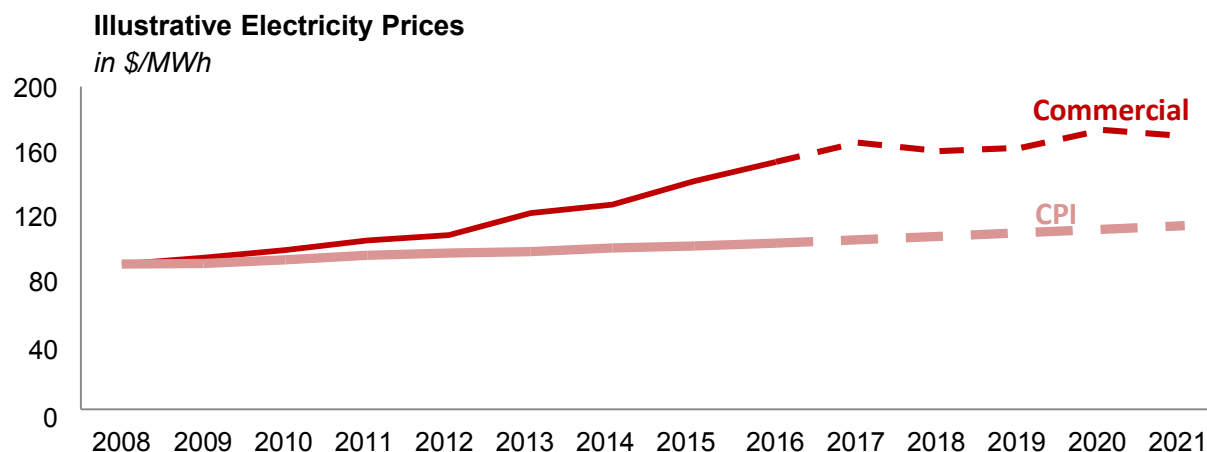
- Refinancing GA would provide significant and immediate rate relief by spreading the cost of electricity investments over a longer period of time.
- Under current forecasts, the immediate reduction (i.e., the financed portion) in the GA would be about \$2.5 billion per year on average over the first ten years, for a total accumulated debt of about \$28 billion on a forecast basis.
- A typical Toronto Hydro consumer, using 750 kWh per month, would see an immediate savings of 25% when combined with other rate mitigation measures. Rates would follow inflation for 4 years, before increasing to repay financed GA costs.



Notes: Assumes 30 year financing period and a nominal interest rate of 5% (compounded monthly). Ratepayer GA payments increase annually beyond 2021 such that the average monthly residential electricity bill increases by 6.5% per year with a limit of \$2.2 billion above the true cost of GA in any given year to cap repayment charges at around 10% of total bill. IESO forecast is based on IESO's revised OPO forecast as of February 2017. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

2. Expanding the Industrial Conservation Initiative (ICI)

- Ontario's Fair Hydro Plan includes enhanced support for the industrial sector, targeted at Class B consumers.
- Class B electricity consumers comprise about 50,000 customers, including many mid-size manufacturers (i.e., automotive parts suppliers, plastics manufacturers), large commercial buildings (i.e., office blocks, mid-sized shopping malls) and broader public sector facilities (i.e., hospitals, college campuses).
- Class B consumers are too large for the Regulated Price Plan (so do not qualify for the 8% rebate for small businesses or Time-Of-Use pricing) and too small to be Class A, currently defined as over 1MW (so have not previously qualified for ICI).
- Although saveONenergy programs like the Process and Systems Upgrade Incentive exist, these programs generally require significant investment on behalf of the customer in addition to the incentives and therefore may be difficult to take advantage of. Further, Class B manufacturers whose electricity consumption is primarily based on process activities, traditional conservation measures like lighting and ventilation upgrades have limited benefit.
- The chart below highlights that the cost of electricity for Class B consumers has risen faster than CPI.



Source: IESO; OEB; Ministry of Energy

2. Expanding the ICI (cont'd)

- ICI allows large consumers to lower electricity bills by up to one-third by reducing consumption during the five system peak hours. This benefits companies financially and saves system costs by deferring the need for new peaking generation.
- ICI participants are billed GA on the basis of their contribution to province-wide peak demand.
- The ICI eligibility threshold for participation was recently lowered to from 3 MW to 1 MW and sector restrictions were removed, allowing additional Class B consumers to save on their electricity costs if they choose to opt-in to ICI (i.e., and become new Class A consumers): New participants will see the change on their bills beginning in July 2017.
 - Prior to lowering the ICI eligibility threshold, electricity consumers with peak demand between 3 and 5 MW could only participate in ICI if they belonged to the following sectors: manufacturing, mining, data processing, refrigerated warehousing and greenhouses.
- Ontario's Fair Hydro Plan would extend eligibility to small manufacturers with an average monthly peak demand between 500 kW and 1 MW. The change would apply to manufactures with the North American Industry Classification System (NAICS) 31-33 and 1114 (i.e., greenhouses).
- In addition, the government would assist Class B participation in ICI through a targeted outreach campaign delivered by the Ontario Chamber of Commerce (OCC).

3. Broadening Rural or Remote Rate Protection (RRRP)

- Ontario's Fair Hydro Plan recognizes that there are opportunities to enhance support for vulnerable electricity consumers, including Ontarians living in low-density areas where the cost to deliver electricity is greater than in higher-density and urban areas. These customers can experience difficulty in reducing their electricity bill through conservation, particularly when reliant on electric heating.
- Rural or Remote Rate Protection (RRRP) currently mitigates some of the high costs of electricity distribution in rural or remote areas of the province. It is a legacy program of the old Ontario Hydro and has existed in its current form since 2001. It currently benefits approximately 350,000 customers. Part of the program helps fund the costs of Hydro One customers classified into the “R2” residential rate class (low density), who pay some of the highest delivery costs in the Province.
- Customers still face high delivery and high distribution costs and are often faced with significantly higher than average bills. Higher than average consumption patterns coupled with higher than average distribution rates has resulted in monthly bills many view as no longer affordable or equitable.
- While RRRP helps mitigate some of the higher distribution costs for Hydro One R2 customers, Ontario's Fair Hydro Plan would extend relief to consumers in relatively high-distribution cost outlier LDCs (top ~1/8th of distribution rate classes).
 - This enhancement would also include Hydro One R1 customers (medium density), as well as LDCs with high distribution costs including: Northern Ontario Wires, Lakeland Parry Sound, Chapleau, Sioux Lookout, InnPower, Atikokan and Algoma.
- Ontario's Fair Hydro Plan also proposes to fund RRRP through the tax base instead of electricity bills, lowering regulatory charges for everyone.

4. Enhancing the Ontario Electricity Support Program (OESP)

- Ontario's Fair Hydro Plan recognizes that electricity bills can represent a challenge for customers who pay a larger share of their income towards energy costs, such as low-income households and seniors on a fixed income.
- The OESP is an income-tested, application-based program that lowers electricity costs of the most vulnerable consumers through a rebate directly on bills.
- Ontario's Fair Hydro Plan would enhance OESP by:
 - Streamlining the OESP process to drive participation toward 100%;
 - Increasing the existing OESP credit scales by an additional 50%; and
 - Expanding the categories of OESP credits.
- Like RRRP, Ontario's Fair Hydro Plan would move to recover OESP costs through the tax base instead of through ratepayers, reducing regulatory charges for everyone and ensuring the programs continue to serve those in need.

4. Enhancing the OESP (cont'd)

- The tables below outline the existing OESP credit scales and how the scales would be enhanced if increased by 50% and credits are extended to additional groups (represented in the circled boxes):

Existing OESP Credit Scales

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*Note: The proposed higher scale, including the amounts in circles are proposed and will be refined in consultation with the OEB.

5. Establishing an Affordability Fund

- As part of Ontario's Fair Hydro Plan, the government also announced the establishment of an Affordability Fund that will provide energy efficiency measures to Ontarians who are not eligible for the Save on Energy Home Assistance Program (HAP), and who otherwise would be unable to make energy efficiency improvements without financial assistance.
- HAP, delivered by electricity distributors in collaboration with the IESO, requires participants to meet a mandated definition of low-income consumers (from Statistics Canada).
- Electricity distributors and other stakeholders have indicated to ENERGY that there is an immediate need to help customers in bill arrears and facing service disconnection.
 - LDCs reported to the OEB that approximately 60,000 customers were disconnected in 2015.
 - At the end of 2015, LDCs also reported over 560,000 residential electricity accounts in arrears;* of these about 19,900 (~3.6%) accounts were eligible to participate in the LEAP low-income support program.**
- On January 30, 2017, Hydro One submitted to ENERGY an "Addressing Affordability" report, which outlined a number of recommendations on electricity rate mitigation. The report included a recommendation to establish an Affordability Fund to assist struggling customers who cannot qualify for low-income conservation programs.
- ENERGY has worked with Hydro One to establish an independent Trust that will administer the Affordability Fund, with an initial funding amount of \$100 million from the tax base.
- A centralized delivery model through a Trust has been established to ensure independent oversight of funds and to facilitate efficient distribution of funds to electricity distributors (see appendix).

*Arrears" means an account that is 30 or more days past the 16-day minimum payment period

**Low-income customers identified through participation in Low-Income Energy Assistance Program (LEAP)

5. Establishing an Affordability Fund (cont'd)

- On March 23, 2017, ENERGY, in collaboration with Hydro One, established an independent Trust (Affordability Fund Trust) to serve as an administrator for the Affordability Fund.
- On March 24, 2017, ENERGY entered into a TPA with the Original Trustee* to flow \$100 million to the Affordability Fund Trust.
 - Principles have been established as annexes to the TPA and in the Declaration of Trust to communicate government expectations to Trust (see appendix).
- The Original Trustee will be replaced with a Board of Trustees who will be responsible for distributing funds to electricity distributors across the province at their discretion based on an application process and targeted eligibility criteria.
 - It is expected that the Board of Trustees will include representation from three electricity distributors, two social service agencies and the government (one non voting representative).
- An Advisory Committee has been established which will provide recommendations by May 31, 2017 to Computershare on the Board of Trustees.
- Once all Trustees are in place, the Advisory Committee's responsibilities will be complete.

Advisory Committee Members

- Brian Bentz (CEO, Alectra Utilites)
- Bryce Conrad (CEO, Hydro Ottawa)
- Robert Mace (CEO, Thunder Bay Hydro)
- Ferio Pugliese (EVP Customer Care & Corporate Affairs, Hydro One)
- Terry Young (VP Conservation and Corporate Relations, IESO)

*The Original Trustee is Computershare, a professional trustee company who serves public and private organizations in Canada and globally.

5. Establishing an Affordability Fund (cont'd)

- **Next Steps:**

- **April – May 2017:** Advisory Committee recommends Trustees by May 31, 2017; Original Trustee appoints full Board of Trustees
- **June 2017:** Trustees expected to engage with distributors, IESO and OEB, and low-income groups to design funding criteria and processes
- **June 2017:** ENERGY to report back to TB/MBC with final program details and a performance management framework including outcome measures and targets
- **Summer 2017:** Estimated timeline for electricity distributors to begin applying to the Trust for funds
- **Late 2017/ Early 2018:** ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need. Trust term can be extended with amended/new TPA if agreed by Trust.

6. Implementing a First Nations On-Reserve Delivery Credit

- Acting on recommendation from the Ontario Energy Board, Ontario's Fair Hydro Plan proposes to eliminate delivery charges for First Nations people living on reserve, through a Delivery Credit.
- The cost of electricity and delivery charges were identified as the prevailing grievance at the First Nations-Ontario Energy Table meeting in Timmins in 2016, and the Minister of Energy agreed to explore options for a First Nations Rate through the Grievance Table process.
- The OEB report to the Minister of Energy on a First Nation on-reserve rate recommended:
 - 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;
 - The OEB estimates this would provide residential customers an average monthly benefit of \$85 at a total annual cost of \$13 to \$20 million.
 - 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; and
 - Continue to provide assistance through OESP and LEAP to eligible on-reserve First Nations customers.
- Ontario's Fair Hydro Plan proposes to implement the recommendations of the OEB.

7. Electricity Sector Efficiencies

- Under Ontario's Fair Hydro Plan, the government would continue to look for opportunities to improve sector efficiency and reduce system costs. This would include:
 - Working with the Ontario Energy Board (OEB) to:
 - Encourage shared partnerships on services between utilities, which would help reduce costs and encourage further innovation for small to medium-sized utilities;
 - Review business cases behind its regulatory requirements to reduce red tape and eliminate costs that LDCs indicate are creating pressures on operating expenses; and
 - Look at opportunities to further drive transmitter and LDC efficiencies and productivity improvements, including the use of innovative technologies and business processes.
 - Continuing to move forward with IESO Market Renewal initiatives, including projects such as:
 - Moving to “technology-agnostic” procurements through a capacity market will provide new opportunities for innovation and modernization and ensure ratepayers receive the best prices possible;
 - Moving to a single-schedule system (from the current two-schedule system);
 - More frequent intertie scheduling to better align with other jurisdictions and maximize existing assets; and
 - Implementing a day-ahead market.
 - 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; and
 - About \$1.30/MWh at current all-in prices for industrial and SME electricity consumers.

Support Programs Fiscal Roll-Up

Fiscal Impact (\$M)	16-17	17-18	18-19	19-20	20-21
RRRP Enhancements*	-	459	472	484	497
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**	100	-	-	-	-
Total	100	665	753	829	892

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

****Note:** Funding for the Affordability Fund is one-time in 2016/17. ENERGY can apply for additional funds through 2018-19 PRRT based on performance and need.

Fair Hydro Plan Impacts on Electricity Bills

- Total bill below is based on a revised IESO forecast. See footnote for more information.

Residential (750 kWh/month)	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%	-
Change from Forecast		-2%	-2%	-2%	-2%	-2%

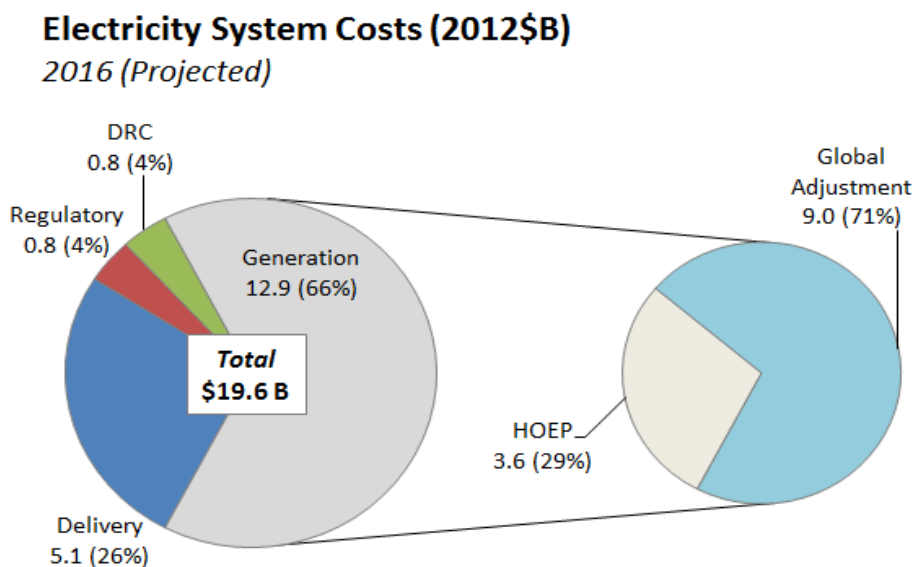
Large Industrial (\$/MWh)	Actual 2016	2017	2018	2019	2020	2021
Class A Total (excludes HST)	90	91	93	88	95	96
Class A Revised Total (excludes HST)	90	88	90	84	92	93
Year-over-Year Change		-2%	2%	-6%	9%	1%
Change from Forecast		-4%	-4%	-4%	-4%	-4%

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.

Appendix

Global Adjustment

- Contracted/regulated generators receive additional payments to make up the difference between the revenue generated through the wholesale market and their expected contracted/regulated revenue. This difference is recovered via the Global Adjustment (GA). GA also pays for conservation and demand response programs.
- GA has risen over the past decade as HOEP has remained relatively low and the province's electricity system has decarbonized.

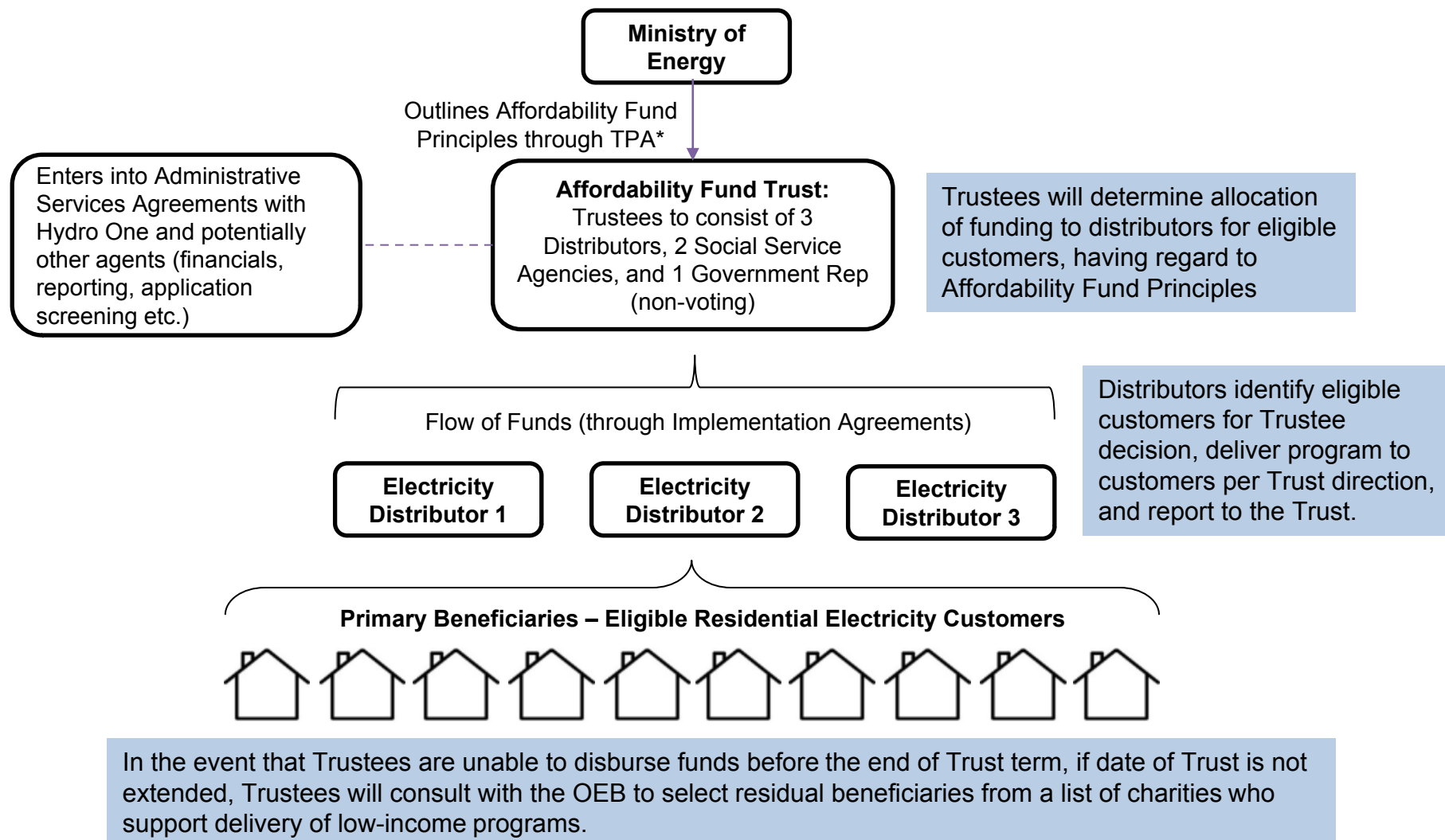


Source: 2013 Long Term Energy Plan

Bending the Cost Curve – Existing Rate Mitigation Measures

- Since 2013, the government has taken a number of actions to reduce electricity ratepayer costs, including:
 - Renegotiating the Green Energy Investment Agreement with Samsung, reducing contract costs by \$3.7 billion.
 - Reducing Feed-In Tariff (FIT) prices through annual price reviews, saving ratepayers at least \$1.9 billion.
 - Introducing a competitive Large Renewable Procurement (LRP) process to drive down costs by approximately \$1.5 billion lower than the 2013 LTEP forecast.
 - Deferring the construction of two new nuclear reactors at Darlington, avoiding an estimated \$15 billion in new construction costs.
 - Maximizing the value of our existing nuclear fleet by starting Bruce refurbishments in 2020 instead of 2016, thus helping to achieve \$1.7 billion in savings and by continuing to operate Pickering up to 2024, pending regulatory approvals, which could save ratepayers about \$600 million.
 - Suspending the second round of the LRP process and the Energy-from-Waste Standard Offer Program, which is expected to save up to \$3.8 billion in costs relative to the 2013 LTEP forecast.
 - Limiting the Feed-In Tariff (FIT) 5 procurement target to 150 MW and suspending future FIT procurements – resulting in savings of up to \$129 million.

Affordability Fund / Transaction Diagram: Roles & Responsibilities



Affordability Fund – Principles

- Principles have been established as annexes to the TPA and in the Declaration of Trust (Trust Deed) to communicate government expectations to Trust.
 - Principles strike a balance between setting government objectives of the Affordability Fund and providing flexibility, so that the Trust remains independent and non-controlled.

Government Established Principles	
Identification of Eligible Participants	- Trustees can rely on electricity distributors to identify eligible customers and facilitate payments. - If an electricity distributor is unable or unwilling to submit funding applications to the Trust, beneficiaries may directly apply to Trust*.
Eligible Measures	- The Trust Deed outlines a list of possible measures for consideration by the Trust, including eligible HAP measures (lighting, appliances). - The final measure list will be determined by the Trustees. Distributors are expected to have flexibility to select measures based on their customer needs.
Payments to Trustees and Electricity Distributors	- It is not intended that the Trustees, with the exception of Computershare, will receive remuneration for their services. - Distributors are expected to manage funding from the Affordability Fund in a not for profit manner, but will be able to seek reimbursement for administrative expenses.
Consultation	The Trustees are expected to consult with distributors, IESO, OEB and low-income program experts to refine participant and measure eligibility rules, and develop an application process for Distributors.

* This avenue is not to be recommended to be widely publicized, but is legally required so Trust serves beneficiaries.