

# **Electricity Price Mitigation**

**Ministry of Energy**

**WORKING DRAFT**

**Date: September 14, 2016**

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Minister

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Deputy Minister

## Context

- Electricity costs are increasing as the necessary investments are made to decarbonize and modernize the province's electricity infrastructure.
- Ontario has taken action to replace coal-fired generation with cleaner sources of energy. Since 2003, the Province has invested more than \$35 billion in over 16,000 megawatts (MW) of new and refurbished clean generation, including nuclear, natural gas and renewables.
  - This investment represents about 40% of our current supply and has helped decrease electricity sector emissions by approximately 80%.
- Over the same period, Hydro One has invested \$15.5 billion to enhance and renew its transmission and distribution systems.
- Since 2010, electricity prices have risen considerably, particularly for households and small businesses. Prices are forecast to continue to increase as additional generation comes online.
- The Ministry of Energy and Ministry of Finance were asked to develop a proposal to provide rate relief to Ontario electricity consumers.

## Context – Electricity Consumer Classes

- There are three classes of electricity consumers:

|                             | Regulated Price Plan                                                                                 | Class B                                                                                                       | Class A                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Consumer Types</b>       | <ul style="list-style-type: none"> <li>Residential</li> <li>Small Business</li> <li>Farms</li> </ul> | <ul style="list-style-type: none"> <li>Commercial</li> <li>Institutional</li> <li>Small industrial</li> </ul> | <ul style="list-style-type: none"> <li>Large commercial</li> <li>Large industrial</li> </ul> |
| <b>Load Size</b>            | Below 0.05 MW                                                                                        | Between 0.05 MW and 3 MW                                                                                      | Above 3 MW*                                                                                  |
| <b>Total Consumption</b>    | 58 TWh                                                                                               | 57 TWh                                                                                                        | 26 TWh                                                                                       |
| <b>Share of Consumption</b> | 41.1%                                                                                                | 40.4%                                                                                                         | 18.4%                                                                                        |

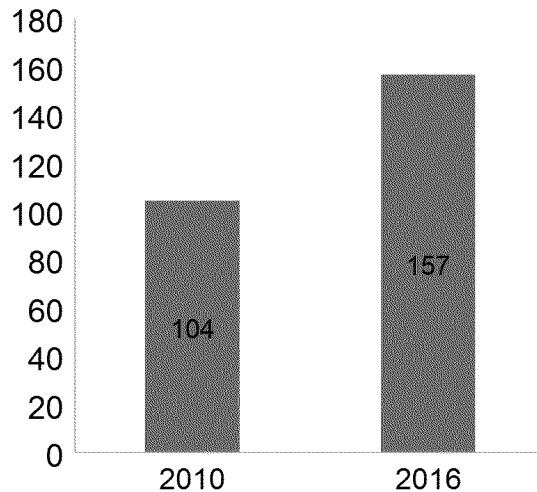
- The following slide provide further information on the prices paid by different classes of electricity consumers.

**\*\* Note:** Consumers with peak demand between 3-5 MW in the manufacturing, mining, refrigerated warehousing, greenhouses and data-processing industries are currently eligible for Class A. All other 3-5MW consumers are Class B.

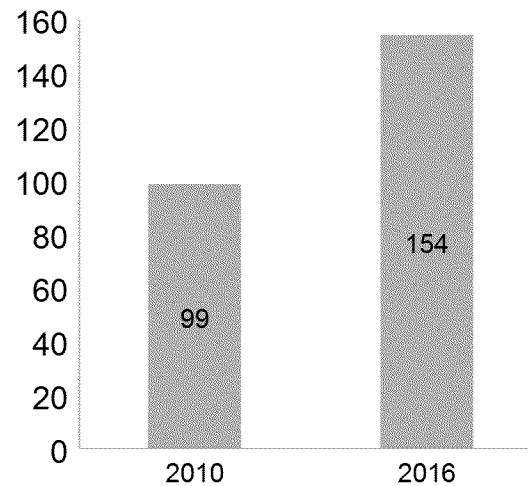
## Context – Prices by Electricity Consumer Class

- Since 2010, average bills for residential consumers (i.e., using 750 kWh/month) have increased by over 50%. Rates paid by commercial and industrial electricity consumers have increased by 56% and 6% respectively over the same period.

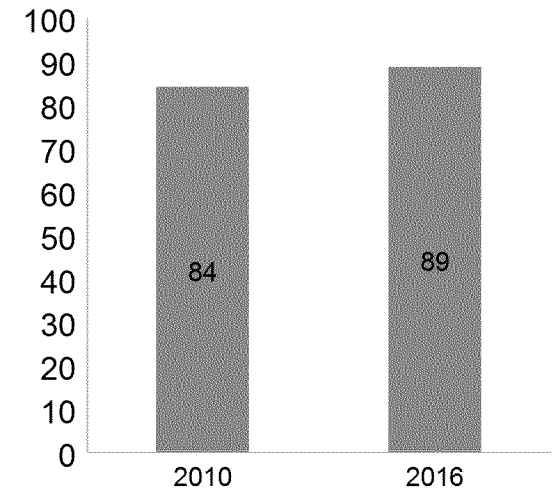
**Typical Residential Bill  
(750/kWh per month)**



**Typical Commercial Price  
(\$/MWh)**



**Typical Industrial  
Price (\$/MWh)**



**Note:** 2016 represents May 2016 for residential and YTD June 2016 for commercial and industrial.



## Existing Rate Mitigation

- Ontario currently provides rate mitigation to various electricity consumer classes through a combination of tax-based and rate-based programs.
  - For example, Northern Ontario residential electricity consumers receive tax credits in recognition of higher electricity costs in the north and rural consumers receive a subsidy funded through the rate-base due to the higher cost of delivering power to rural areas.
- As of 2016, the government removed the Debt Retirement Charge (DRC) from residential electricity bills. While this saves a typical residential electricity ratepayer about \$60 per year, it is less than the benefit previously provided through the Ontario Clean Energy Benefit (OCEB).
  - OCEB provided a tax-base rebate of 10% rebate on the total cost of electricity charges related to electricity consumption on eligible bills between 2011 and 2015.
- Because electricity costs must be fully recovered from electricity consumers, rate mitigation funded through the rate-base often represents a shifting of costs from one consumer group to another (i.e., industrial to residential and commercial consumers).
  - Rate-based initiatives are generally associated with incenting changes in behaviour that provide electricity system benefits (i.e., shifting electricity consumption from on-peak to off-peak periods).
- The following slides provide an overview of the programs currently available to different electricity consumer classes along with the cost shift associated with several of the programs.

## Existing Rate Mitigation (cont'd)

| Program                                                                                          | Consumer Type      | Rate/Tax-based | Description                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------|--------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Northern Ontario Energy Credit                                                                   | <b>Residential</b> | Tax            | Delivered as part of the Ontario Trillium Benefit, provides individuals living in northern Ontario with a credit of up to \$146 per year for the 2016 benefit year.                                                                                                                      |
| Ontario Energy and Property Tax Credit                                                           |                    | Tax            | Also delivered as part of the Ontario Trillium Benefit, provides up to \$1,008 per year for low-to moderate-income individuals and families.                                                                                                                                             |
| Ontario Electricity Support Program                                                              |                    | Rate           | Provides ongoing assistance directly on the bills of eligible low-income electricity consumers.                                                                                                                                                                                          |
| Rural or Remote Rate Protection                                                                  |                    | Rate           | Provided to rural and remote residential and farm customers because the cost of distributing power to remote areas is much higher than for urban areas.                                                                                                                                  |
| saveONenergy Conservation Programs (including Home Assistance Program for low income customers)  |                    | Rate           | Delivered by LDCs which provide financial incentives for electricity-saving measures like LEDs, ENERGYSTAR certified ceiling fans, baseboard programmable thermostats, clotheslines, and advanced powerbars.                                                                             |
| saveONenergy Conservation Programs (including Retrofit Program for Buildings and other programs) | <b>Commercial</b>  | Rate           | saveONenergy suite of electricity conservation programs for commercial customers offered by local distribution companies (LDCs) help businesses save energy to better manage their electricity consumption and reduce their annual electricity costs. See Appendix for more information. |
| Industrial Conservation Initiative                                                               | <b>Industrial</b>  | Rate           | Encourages Ontario's largest consumers to reduce consumption during peak periods to save on average 25% on their electricity bills.                                                                                                                                                      |
| Industrial Accelerator Program                                                                   |                    | Rate           | Provides financial incentives of up to \$10 million to transmission-connected electricity consumers, to invest in energy-efficiency or self-generation which would reduce the amount of electricity withdrawn from the provincial grid.                                                  |
| Industrial Electricity Incentive                                                                 |                    | Rate           | Provides reduced electricity rates for companies starting or expanding operations in Ontario.                                                                                                                                                                                            |
| Northern Industrial Electricity Rate Program                                                     |                    | Tax            | Provides \$20 megawatt per hour (MWh) rebate for qualifying large northern industrial consumers.                                                                                                                                                                                         |
| Demand Response                                                                                  |                    | Rate           | Provides payments to businesses and industry to shift consumption at times when the electricity system is stressed. DR currently provides ~500 MW of capacity to the system.                                                                                                             |

## Current Cost Shifts in Ontario's Electricity System

- Ontario has implemented several programs that have shifted costs amongst electricity consumer classes (i.e., residential, commercial and industrial).
- The table below shows the estimated cost shifts in the province's electricity system that result from three existing government programs (i.e., ICI, RRRP and OESP):

| Cost Shift Impact                          | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   |
|--------------------------------------------|--------|--------|--------|--------|--------|--------|
| Residential Bill<br>(\$/month for 750 kWh) | 3.55   | 4.07   | 3.85   | 4.46   | 5.68   | 6.55   |
| Commercial – Class B<br>(\$/MWh)           | 4.74   | 5.43   | 5.14   | 5.94   | 7.57   | 8.73   |
| Industrial – Class A<br>(\$/MWh)           | -20.97 | -25.26 | -22.38 | -24.68 | -32.56 | -31.55 |

**Note:** Negative values indicate a benefit; positive values denote an incremental charge.

## 2016 Budget Commitment – Overview

- The 2016 Budget committed to offset the impact of cap and trade in Ontario for commercial and industrial electricity consumers, while also providing a benefit of up to \$2 per month for residential electricity consumers.
- To meet the 2016 Budget commitment, the Climate Change Action Plan (CCAP) committed \$1.3 billion from the Greenhouse Gas Reduction Account (GGRA) over the first compliance period (2017-2020).
- The \$1.3 billion was estimated to go to different electricity consumer classes as follows:
  - \$120 million for residential consumers;
  - \$170 million for commercial consumers; and
  - \$40 for industrial consumers.

## Electricity System Cost Reduction Initiatives

- A number of actions have and are being taken to reduce overall electricity system costs:
  - Renegotiating the Green Energy Investment Agreement, reducing contract costs by \$3.7 billion;
  - Deferring the construction of two new nuclear reactors at Ontario Power Generation's Darlington facility, avoiding an estimated \$15 billion in new construction costs;
  - Approving Ontario Power Generation's plans to enable the ongoing operation of Pickering up to 2024, which is expected to save ratepayers as much as \$600 million.
  - Reducing Feed-In-Tariff (FIT) prices through annual price reviews, saving ratepayers at least \$1.9 billion relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast; and
  - Removing an expected \$3.3 billion in Large Renewable Procurement (LRP) costs relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast, based on the results of the first phase of the LRP.
- Despite these actions to reduce system costs, electricity rates continue to increase for consumers.

## Context – Rate Mitigation Levers

- To provide further rate relief to Ontario electricity consumers, the government can use one or more of the levers outlined below:
  - **Tax-based Lever:**
    - Provide an on-bill rebate funded from the tax-base to all consumers or specific classes of consumers (i.e., the Ontario Clean Energy Benefit (OCEB) provided a rebate for eligible electricity consumers).
  - **Rate-based Lever:**
    - Shifts costs within the rate-base from one customer group to another to achieve electricity system benefits and/or policy goals.
  - **Cap and Trade Proceeds Lever:**
    - Use cap and trade proceeds to offset the cost of existing initiatives that help reduce greenhouse gas (GHG) emissions (i.e., the CCAP committed to offset the impact of cap and trade and to keep electricity rates affordable).

## Rate Mitigation Proposal – Overview

- The Ministry of Energy is proposing to implement the following electricity price mitigation initiatives. The approach identified below would provide relief across all electricity consumer classes:
  - 1) Provide an 8% rebate to consumers eligible for the Regulated Price Plan\* (i.e., residential, small business and farms), equivalent to the provincial portion of HST;
  - 2) Expand ICI eligibility by lowering the threshold to 1 MW, to provide support to Class B electricity consumers (i.e., commercial, institutional and small industrial);
  - 3) Update the Rural and Remote Rate Protection (RRRP) program, to provide relief to rural customers; and
  - 4) Recycle cap and trade proceeds to commercial and industrial electricity consumers to provide a modest reduction in rates.
- The following slides provide additional information on the above initiatives.

**\*Note:** Eligibility for the 8% rebate would be similar to OCEB and include some customers not on the Regulated Price Plan (RPP), such as Independent Power Authority consumers and consumers that have opted-out of RPP.

## Rate Mitigation Proposal – Illustrative\* Impacts

|                                                                                                                                                                               | Average Annual Fiscal Impact | Average Annual Greenhouse Gas Reduction Account (GGRA) Proceeds Impact | Regulated Price Plan (Residential) Impact |                          | Class B (Commercial) Impact | Class A (Industrial) Impact |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------|-------------------------------------------|--------------------------|-----------------------------|-----------------------------|---------------------------|
|                                                                                                                                                                               |                              |                                                                        | Average (750 kWh/month)                   | Rural** (1000 kWh/month) |                             | Existing                    | New                       |
| <ul style="list-style-type: none"> <li>• 8% rebate to Regulated Price Plan consumers</li> <li>• ICI Expansion</li> <li>• RRRP Update</li> <li>• Proceeds Recycling</li> </ul> | \$1.0 billion                | \$270 million annually                                                 | -\$10/month<br>(-6%)                      | -\$45/month<br>(-20%)    | -\$1/MWh<br>(-1%)           | -\$1/MWh<br>(-1%)           | Up to -\$52/MWh<br>(-34%) |

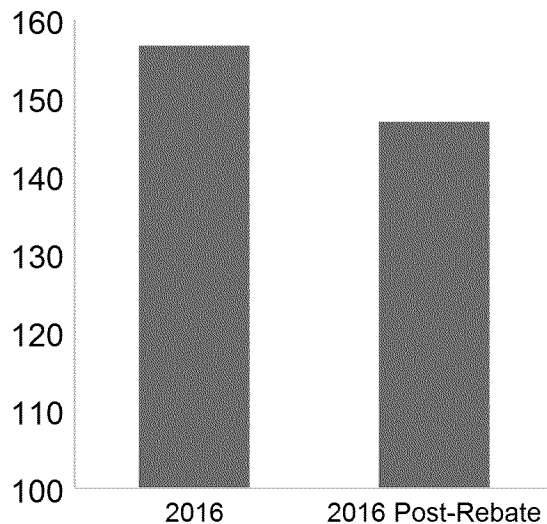
**\*Note:** The impact of cap and trade would not be added to electricity bills until 2017 and the impact of ICI would not be added to bills until 2018 due to the time required to implement the expansion and for billing changes. However, both the impact of cap and trade and ICI have been included above for illustrative purposes.

**\*\*Note:** Rural customers refers to customers of Hydro One eligible to receive RRRP (R2 rate class customers)



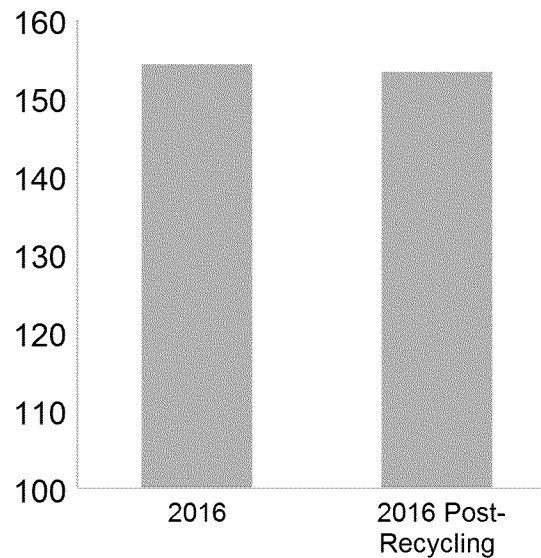
# Rate Mitigation Proposal – Illustrative Bill Impacts by Electricity Consumer Class

**Typical Residential Bill**  
750/kWh per month



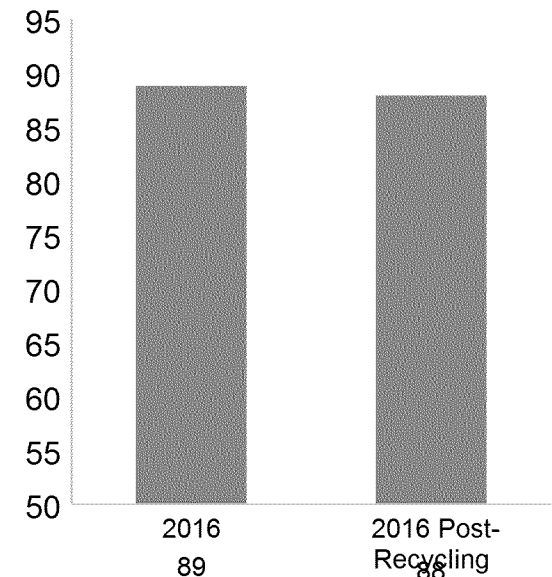
**Residential:** The net impact of the 8% rebate is a 6% reduction.

**Typical Commercial Price**  
(\$/MWh)



**Commercial:** The net impact of proceeds recycling is a 1% reduction.

**Typical Industrial Price**  
(\$/MWh)



**Industrial:** The net impact of proceeds recycling is a 1% reduction.

**Note:** Residential bills reflect electricity rates as per the Regulated Rate Plan (RRP) which came into effect on May 1, 2016. Commercial and industrial electricity prices reflect YTD June 2016. The impact of cap and trade would not be added to electricity bills until 2017 and the impact of ICI would not be added to bills until 2018 due to the time required to implement the expansion and for billing changes. However, both the impact of cap and trade and ICI have been included above for illustrative purposes.

# 1) 8% Rebate to Regulated Price Plan Eligible Consumers

- ENERGY is proposing to introduce legislation/regulation by X [placeholder for date] to provide a rebate of 8% to consumers eligible for the Regulated Price Plan. The below table indicates which consumers would or would not receive the benefit.
  - This would be equivalent to the provincial portion of the HST\*.

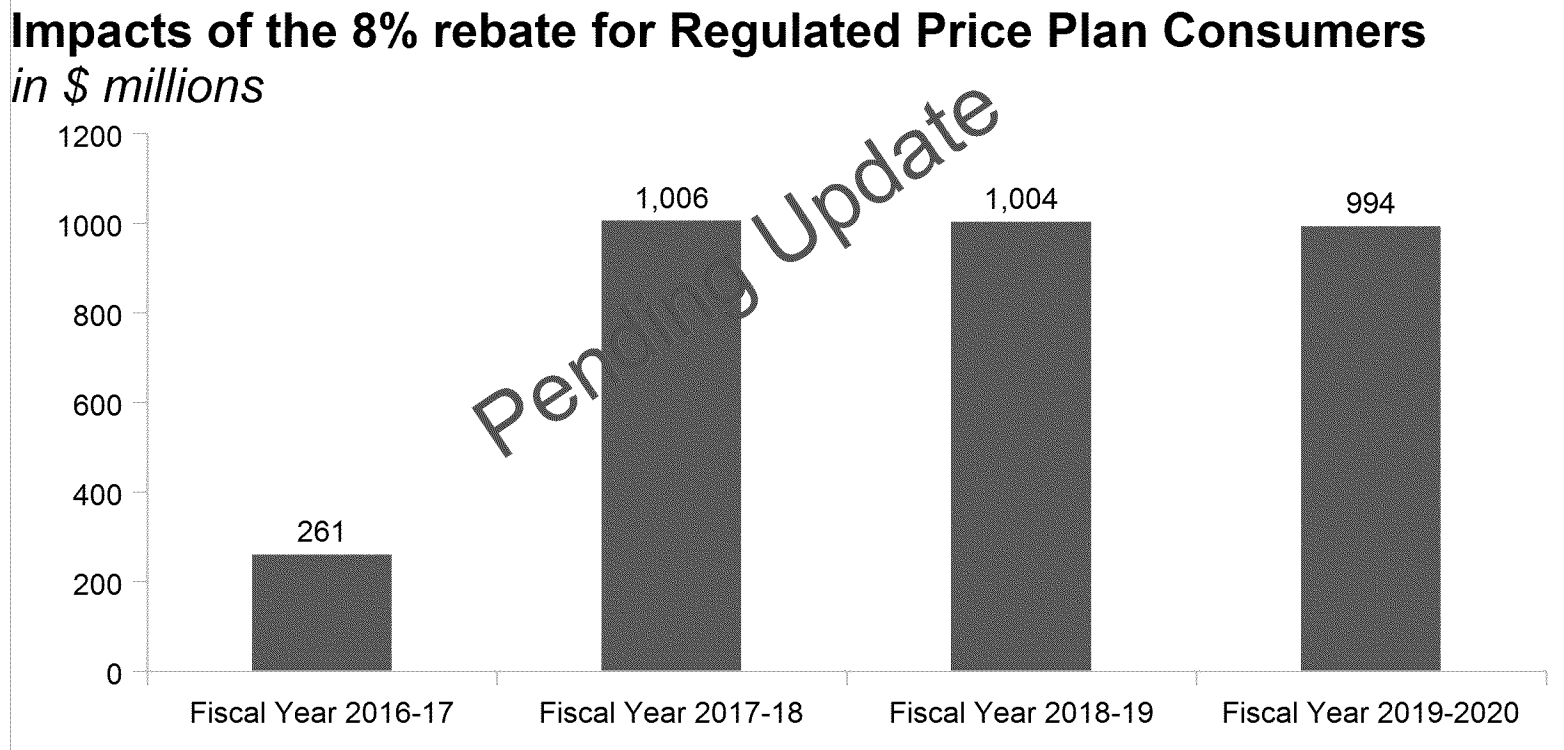
| Eligible for the 8% rebate<br>( $< 50$ kW or $< 250,000$ kWh/year)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Not eligible for the 8% rebate<br>( $> 50$ kW or $> 250,000$ kWh/year)                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Residential Regulated Price Plan consumers</li> <li>Residential retail consumers</li> <li>Multi-unit residential buildings and other facilities used as residential rental units</li> <li>Long-term care homes and school residences</li> <li>Regulated Price Plan eligible farms</li> <li>Small businesses               <ul style="list-style-type: none"> <li>Coffee / snack retailer</li> <li>Convenience store</li> <li>Apparel store</li> <li>Hair salon</li> <li>Small insurance office</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Class A consumers               <ul style="list-style-type: none"> <li>Manufacturer</li> <li>Large grocery store</li> <li>Mines</li> <li>Auto assembly plants</li> </ul> </li> <li>Class B consumers (except farms that have opted out of the Regulated Price Plan)               <ul style="list-style-type: none"> <li>Commercial offices (low rise)</li> <li>Hotel</li> <li>General warehousing</li> </ul> </li> </ul> |

- Those ineligible to receive the 8% rebate will benefit from one or more of the other initiatives under this proposal (e.g., ICI expansion, proceeds recycling, etc).

**\*Note:** An HST exemption would require federal approval. Engaging in discussions with the federal government would take time and would likely result in not meeting the targeted implementation date.

## 1) 8% Rebate to Regulated Price Plan Eligible Consumers – Projected Impact

- ENERGY estimates that the average annual cost of an 8% rebate to consumers eligible for Regulated Price Plan consumers would be approximately \$1.0 billion between 2017 and 2020.



## 2) Industrial Conservation Initiative (ICI) Expansion

- ENERGY is proposing to amend O. Reg. 429/04 to expand ICI eligibility effective [X placeholder date].
- Currently, electricity consumers over 5 MW and consumers from 3-5 MW in certain energy intensive sectors are eligible for ICI (i.e., approximately 300 Class A consumers).
  - Consumers participating in ICI include the following sectors: pulp and paper, auto, manufacturing, chemicals and mines.
- ICI would be expanded so that all consumers over 1 MW are eligible for the program, which would:
  - Reduce electricity peak demand by incenting more consumers to lower their electricity demand during peak periods;
  - Reduce electricity bills for new ICI participants who are able to reduce their electricity demand during peak demand periods; and
  - Increase the electricity bills for non-ICI participants to ensure full cost recovery in the electricity system.

## 2) ICI Expansion – Projected Impact

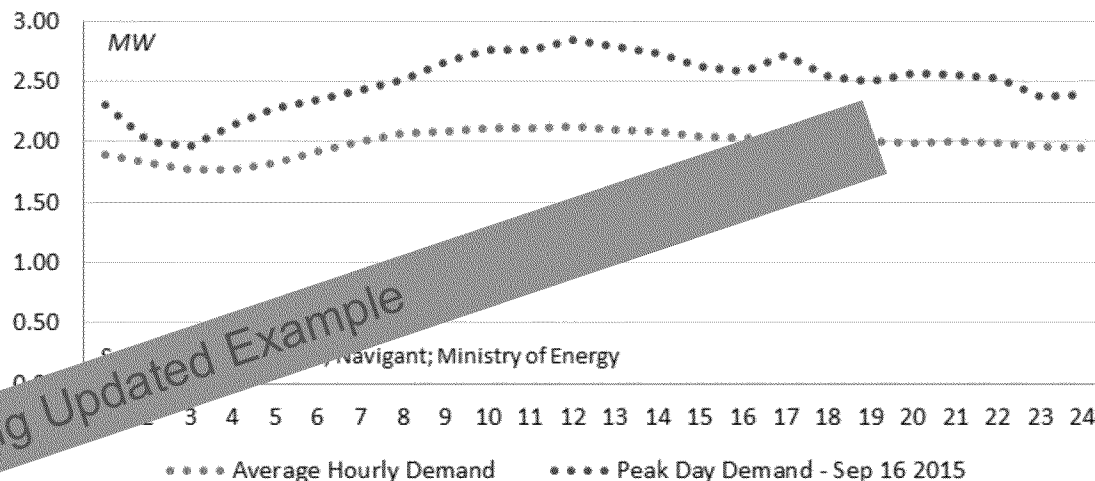
|            | Benefit to New ICI Participants | System Benefit             | Financial Impact            | Residential Bill Impact  |
|------------|---------------------------------|----------------------------|-----------------------------|--------------------------|
|            | Bill Savings                    | Peak Demand Reduction (MW) | GA shifted to Class B (\$M) |                          |
| Short-term | Up to 21%                       | 80                         | 47                          | Increase of \$0.42/month |
| Long-term  | Up to 34%                       | 165                        | 82                          | Increase of \$0.74/month |

- The different impacts refer to the amount of time it takes for new Class A consumers to respond to the expanded ICI eligibility
  - Short-term refers to the expected impact once ICI billing begins for new Class A consumers (one year after expanded eligibility takes place).
  - Long-term is the expected impact once new Class A consumers have had time to significantly change their behaviour and investment decisions in response to the ICI.
- The bill impacts assume a 25% uptake, which would increase Class A consumption by roughly 3 TWh, leaving an estimated 54 TWh in Class B that are either between 0.05-1 MW or choose not to opt in to ICI. This would represent an estimated 300 additional consumers in ICI, though they would represent a much smaller share of the consumption than the 300 consumers currently participating.
- Newly eligible consumers in the program would mostly fall into the small industrial, institutional and commercial category, including: automotive supply chain companies, office tower, large shopping mall, greenhouses and others.
  - A few examples of companies that would become eligible under such an expansion would be Kellogg, Canlan Ice Sports, Cambridge Towel, SLACAN and Casino Rama.

## 2) ICI Expansion – Illustrative Example of Newly Eligible Consumer

- Plastics manufacturers, such as Poly Five Plastics in Toronto, are among the consumers that would become eligible if the threshold was lowered.
- Such manufacturers fall under NAICS\* code 32 and have relatively flat load profiles, reflecting around the clock production. This means they would be beneficiaries of ICI even with no change in consumption behaviour.
- Companies like Poly Five could expect to realize savings if they are able to respond to prices during high and low hours.

**Typical Demand Profile, 2-3 MW Consumer**  
*Manufacturer, NAICS Code 32 - Nov 2014 to Oct 2015*



**Illustrative Bill Savings, 2-3 MW Consumer**  
*Manufacturer, NAICS code 32*

|            | Status Quo    | No Price Response | Short Term Response | Long Term Response |
|------------|---------------|-------------------|---------------------|--------------------|
|            | Class B       | Class A           | Class A             | Class A            |
| GA         | 75.26         | 58.06             | 43.55               | 29.03              |
| Total bill | <b>126.28</b> | <b>109.09</b>     | <b>94.58</b>        | <b>80.06</b>       |
| Savings    |               | -14%              | -25%                | -37%               |

Source : Navigant; Ministry of Energy

\* **Note:** North American Industry Classification System (NAICS) is the standard used by statistical agencies in classifying business establishments.

### 3) Rural or Remote Rate Protection (RRRP) Update

- ENERGY is proposing to amend O.Reg 442/01 to provide an additional \$110 million in rate protection to eligible rural or remote electricity consumers, and consider options to periodically adjust the amount of rate protection available to these consumers going forward.
- RRRP is a rate-based funded subsidy program that helps offset the higher costs to distribute electricity to Ontario residents who live in rural or remote locations all across the Province.
  - Today, RRRP is a \$175-million program. For an average residential customer, the cost of supporting RRRP is roughly \$1 per month. For other customers, the cost can range from \$65 for a greenhouse to \$8,000 for a medium industrial.
  - The majority of the program funding (\$125.5 million) provides a subsidy to Hydro One's lowest-density customers – classified as R2 customers. There are approximately 329,000 R2 customers. The current program provides a monthly subsidy for R2 customers of \$31.50.
  - RRRP funding supporting R2 customers has been capped at the current level since 2004. As a result, the impact of its assistance has diluted over time as electricity costs have risen.
- An additional \$110 million in program funding would see an increased subsidy of ~\$28 /month. This would bring R2 bills in line with Hydro One R1 (medium density) bills at 1000kWh.
  - This would increase the R2 portion of the RRRP to \$235 million with a monthly impact on an average residential consumer of ~\$0.60.
  - The RRRP could be indexed at inflation or “trued up” on a regular basis to ensure the subsidy remains constant.

### 3) Rural or Remote Rate Protection (RRRP) Update

| Bill Comparisons @ 1000kWh/month<br>(Pre-HST)         |                                   |                    |
|-------------------------------------------------------|-----------------------------------|--------------------|
|                                                       | Total Current Delivery**** Charge | Total Current Bill |
| <b>Hydro One R2</b><br>(Current RRRP Subsidy Levels)  | ~\$111                            | ~\$229             |
| <b>Hydro One R2</b><br>(With Proposed RRRP Expansion) | ~\$83                             | ~\$201             |
| <b>Hydro One R1</b>                                   | ~\$82.50                          | ~\$201             |
| <b>Algoma Power</b><br>(Receives RRRP)                | ~\$79.50                          | ~\$197             |
| <b>Provincial Average*</b>                            | ~\$51                             | ~\$169             |
| <b>Lowest Cost Total Bill LDC**</b>                   | ~\$48                             | ~\$149*            |
| <b>Lowest Cost Delivery Charge LDC***</b>             | ~\$36                             | ~\$154             |

\*Average Bill of Ontario municipal LDCs and non-municipal Algoma Power, CNPI, and Hydro One Urban. Excludes Hydro One Remote, Hydro One R1 and Cornwall Electric.

\*\*The LDC with the lowest total bill is Fort Frances Power Corporation (FFPC). However, FFPC does not have the lowest delivery costs in the province. FFPC customers who are not enrolled with a retailer receive a \$0.0125/kwh discount on power due to a historic (1905) mill agreement. In order to maintain the discount, FFPC maintains its ROE at 0%.

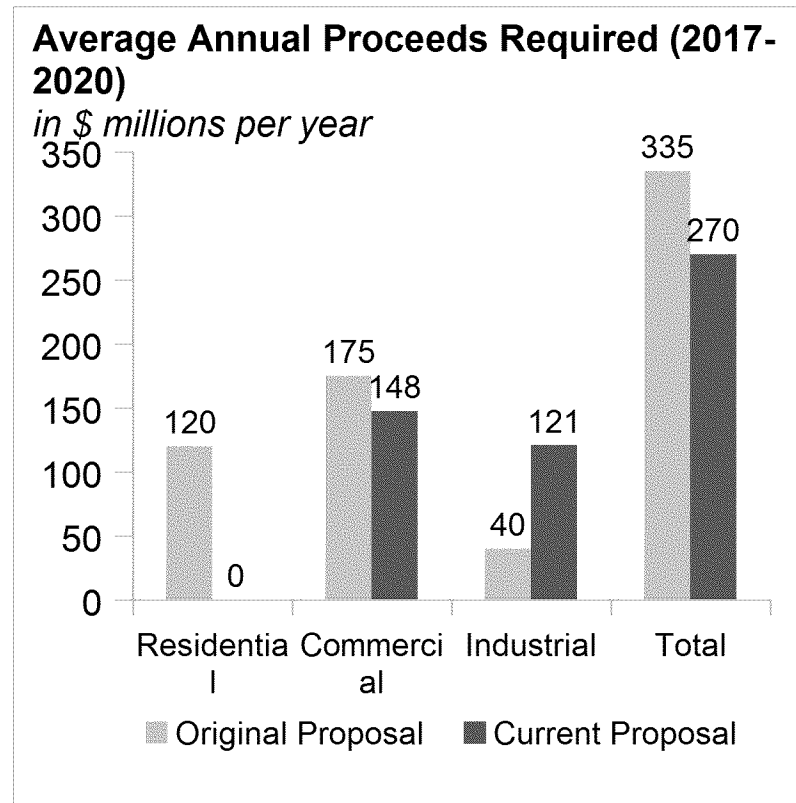
\*\*\*Hydro Hawkesbury has the lowest delivery rates at ~\$36 per month

\*\*\*\*Delivery charges include distribution rates (fixed and variable), transmission, and line loss.



## 4) Redirect Cap and Trade Proceeds Recycling

- The 2016 Budget committed to offset the impact of cap and trade for commercial and industrial consumers, while also providing a benefit of up to \$2 per month for residential consumers.
  - To meet the 2016 Budget commitment, the Climate Change Action Plan (CCAP), committed \$1.3 billion from the GGRA over the first compliance period (2017-2020).
- However, providing a 8% rebate to Regulated Price Plan consumers would allow for GGRA proceeds previously committed to residential consumers to be redirected to other consumers classes and/or GHG reduction initiatives in the fiscal plan.
- The current proposal would provide additional recycling to commercial and industrial consumers, while requiring an estimated \$60 million less per year (i.e., a reduction of \$0.24 billion over the first compliance period).



**Note:** The original proposal was to offset the impact of cap and trade via GA to the average industrial, and would provide a benefit to commercial and residential consumers. Current proposal would recycle proceeds volumetrically to industrial and commercial consumers.

## Considerations – Implementation

- New legislation would be required to enable the 8% rebate proposal. Legislation would closely mirror the Ontario Clean Energy Benefit Act, 2010.
  - If passed, the legislation would require a general regulation.
  - Amendments would also be required to various regulations to expand ICI and RRRP.
- On-bill rebate delivery would likely require adjustments to LDC billing systems, which could impact delivery costs and timelines. ENERGY (possibly through Ontario Energy Board) will consult with LDCs to accurately assess these impacts once the program has been announced.
  - In the past, LDCs have asked for at least six months' notice when implementing billing system changes.
  - Timing concerns may be alleviated by allowing LDCs to provide retroactive payments rebates if their systems cannot be updated in time for January 1, 2017. This was done with the OCEB.
- Detailed messaging on bills (for “low-volume” consumer bills ) could be implemented by amending O. Reg. 275/04 (made under the Ontario Energy Board Act, 1998). See appendix for bill mock-up.
  - The rebate would not be directly linked to HST.
  - With electricity invoices containing multiple line items and LDC bill presentment varying widely, direction on rebate presentment will need to be flexible to allow LDCs to incorporate easily while ensuring government-preferred branding and messaging is conveyed.
- ENERGY will need to continue to consult with the Independent Electricity System Operator (IESO), Ontario Energy Board (OEB) and LDCs regarding implementation of proceeds recycling.

## Considerations – Fiscal

- The Climate Change Action Plan (CCAP) committed about \$1.3 billion over four years for electricity mitigation for industrial, commercial and residential consumers from GGRA proceeds.
  - The current rate mitigation proposal requires approximately 20% less in proceeds, saving approximately \$240 million relative to the CCAP commitment over the first compliance period (2017-2020).
- The 8% rebate is expected to cost about \$1 billion per year (i.e., \$4 billion from 2017-2020), representing an additional pressure on the fiscal plan.
  - Consideration could be given to allocating the \$240 million in reduced proceeds required towards other existing initiatives in the fiscal plan that also reduce greenhouse gas (GHG) emissions, thereby providing an overall fiscal plan offset.

## Considerations – Legal

- In order to avoid characterization as an unconstitutional tax, a non-tax levy must have a sufficient nexus between those who pay and the regulatory scheme in the sense that those who pay have caused the need for or benefit from the regulatory scheme. Although the case law is not developed on the extent to which some regulated actors can be required to subsidize others, risk is reduced to the extent that any cross-subsidization serves true regulatory goals rather than revenue re-distribution goals.
- HST Rebate (shift costs from rate-base to tax base by providing a rebate equal to the provincial portion of HST):
  - Providing the contemplated rebate under the proposed Bill does not, in and of itself, give rise to legal issues. As policy direction is given on the specifics of supporting regulations, any associated legal risks can be identified.
- ICI Expansion (shift costs within rate-base by expanding eligibility for the ICI program to consumers of >1 MW):
  - Shifting costs to some consumers to lower rates for others without more carries the risk that the charge would be characterized as an unconstitutional tax. To establish that the charge is legitimate, it must be established that the purpose and effect of the charge is to facilitate the maintenance of a financially viable electricity system by way of load management or some other feature under which those who are subsidized provide an overall system benefit enjoyed by those who subsidize them.
- RRRP Update (shift costs within the rate-base by increasing the RRRP benefit paid to rural and remote customers):
  - Increasing the amount of revenue devoted to the RRRP or expanding the scope of consumers eligible for the program does not raise new legal risk. There is a good argument that the RRRP is a regulatory charge, as it socializes some of the costs of distributing electricity to rural consumers. Overall the risk that the RRRP would be characterized as a tax is assessed as moderate (meaning equally good arguments on both sides).
- Cap and Trade Proceeds Recycling (reduce impact on rate base and tax base by directing cap and trade auction proceeds to industrial consumers):
  - To be characterized as regulatory charges under the cap and trade program, auction revenues should be spent on programs that reduce GHGs.

## Communications

- Public high-profile communications would coincide with introduction of legislation (September 2016).
  - Stakeholder outreach/technical briefings with LDCs, Ontario Chamber of Commerce, AMPCO, OEB low-income table, AMO, etc.
  - Echo public announcements in southwest and north; proactive provincial/local media.
- **Positioning:**
  - A fiscally prudent plan to benefit all ratepayers in a lasting, meaningful way.
  - Rural customers will receive the largest single rate relief ever.
  - Businesses across Ontario will have even more opportunity to be competitive and manage their energy costs.
- **Issues Considerations:**
  - Significant benefit for rural and remote residential customers; net gain for all residential customers.
  - More complex to communicate, but can be presented as a full plan that includes reforms and improvements to the system.
  - Consistent with cap-and-trade commitment that no business sector will be left worse off, though small businesses outside ICI will benefit the least.

## Communications – Key Messages

- [Placeholder]

## Proposed Cabinet Minute

### CABINET AGREED THAT:

1. THE MINISTRY OF ENERGY (ENERGY), WITH SUPPORT FROM THE MINISTRY OF FINANCE (MOF), SHALL PREPARE LEGISLATION THAT WOULD PROVIDE AN EIGHT PERCENT (8%) REBATE ON THE PRE-TAX COST OF ELECTRICITY FOR THE FOLLOWING CLASSES OF CONSUMERS:
  - A. ALL CONSUMERS ELIGIBLE TO BE BILLED UNDER THE ONTARIO ENERGY BOARD'S REGULATED PRICE PLAN; AND
  - B. ANY OTHER CONSUMERS WHO WERE ELIGIBLE FOR FINANCIAL ASSISTANCE UNDER THE *ONTARIO CLEAN ENERGY BENEFIT ACT, 2010* (OCEBA) DURING THE PERIOD THAT PROGRAM WAS IN PLACE.
2. THE LEGISLATION SHALL BE GENERALLY MODELLED UPON THE OCEBA, AND WOULD INCLUDE THE FOLLOWING ELEMENTS:
  - A. THE REBATE WOULD BE AVAILABLE STARTING JANUARY 1, 2017 AND BEFORE SUCH DATE AS MAY BE PRESCRIBED;
  - B. THE REBATE WOULD NOT BE SUBJECT TO A CAP UNLESS A CAP IS PRESCRIBED;
  - C. THE LEGISLATION WOULD SPECIFY THE TYPES OF COSTS TO WHICH THE REBATE WOULD OR WOULD NOT BE APPLIED, WITH AUTHORITY TO MAKE CHANGES BY REGULATION;
  - D. THE LEGISLATION WOULD ADDRESS INVOICING REQUIREMENTS, INCLUDING AUTHORITY TO PRESCRIBE HOW THE REBATE IS TO APPEAR ON CONSUMER ELECTRICITY BILLS;
  - E. THE LEGISLATION WOULD INCLUDE AUTHORITY TO PRESCRIBE THE WAY IN WHICH THE REBATE IS TO BE FLOWED THROUGH TO CONSUMERS, AND THE WAY IN WHICH ELECTRICITY VENDORS PROVIDING THE REBATE ARE TO BE REIMBURSED;
  - F. THE LEGISLATION WOULD INCLUDE RECORD-KEEPING REQUIREMENTS FOR ELECTRICITY VENDORS AND ANY OTHER PRESCRIBED PERSONS; AND
  - G. THE LEGISLATION WOULD INCLUDE INSPECTION POWERS FOR INSPECTORS APPOINTED BY THE MINISTER OF FINANCE, INCLUDING POWERS RELATED TO RECOVERY OF OVERPAYMENTS.

## Proposed Cabinet Minute (cont'd)

3. ENERGY AMEND O. REG. 429/04 (ADJUSTMENTS UNDER SECTION 25.33 OF THE ACT) MADE UNDER THE *ELECTRICITY ACT, 1998* TO EXPAND ELIGIBILITY FOR CLASS A CONSUMERS AND CLASS A MARKET PARTICIPANTS UNDER THE INDUSTRIAL CONSERVATION INITIATIVE (ICI) TO ALL ELECTRICITY CONSUMERS AND MARKET PARTICIPANTS WITH A PEAK DEMAND ABOVE AN AVERAGE OF ONE MEGAWATT (1MW) WITH NO SECTORAL RESTRICTIONS ON PARTICIPATION.
4. ENERGY AMEND O. REG 442/01 (RURAL OR REMOTE ELECTRICITY RATE PROTECTION) MADE UNDER THE *ONTARIO ENERGY BOARD ACT, 1998* TO INCREASE THE TOTAL AMOUNT OF RATE PROTECTION AVAILABLE TO LOW DENSITY HYDRO ONE INC. CONSUMERS UNDER THE RURAL OR REMOTE RATE PROTECTION PROGRAM BY \$110 MILLION, EFFECTIVE JANUARY 1, 2017.
5. ENERGY CONSIDER AND, IF APPROPRIATE, UTILIZE A MECHANISM TO PERIODICALLY ADJUST THE TOTAL ANNUAL AMOUNT OF RATE PROTECTION AVAILABLE TO HYDRO ONE INC. CONSUMERS UNDER THE RURAL OR REMOTE ELECTRICITY RATE PROTECTION REGULATION / PROGRAM, EFFECTIVE JANUARY 1, 2018.
6. ENERGY TO RECYCLE UP TO AN AVERAGE OF \$270 MILLION OF CAP AND TRADE AUCTION PROCEEDS FROM THE *GREENHOUSE GAS REDUCTION ACCOUNT* PER YEAR OVER THE FIRST COMPLIANCE PERIOD (2017-2020) TO COMMERCIAL AND INDUSTRIAL ELECTRICITY CONSUMERS.
7. ENERGY AND MOF TO WORK WITH CABINET OFFICE (CO) AND PREMIER'S OFFICE (PO) ON COMMUNICATIONS PLAN.



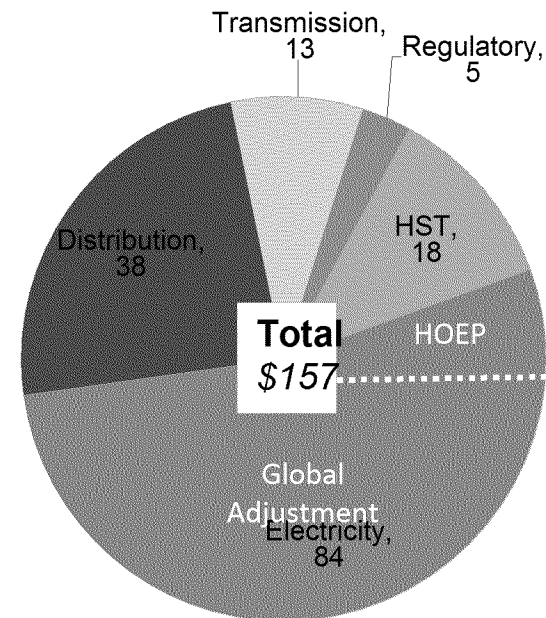
## Appendix

# Residential Electricity Prices

- There are approximately 5 million residential consumers in Ontario.
- The Regulated Price Plan includes nearly all residential consumers, as well as small businesses. Regulated Price Plan consumers pay a blended commodity rate regulated by the OEB, which is set every six months.
- For households, the Debt Retirement Charge (DRC) was removed from residential electricity bills as of January 1, 2016.
- In addition, the Ontario Electricity Support Program (OESP) provides an ongoing rate reduction directly on the bills of low-income electricity consumers who have applied and meet the eligibility requirements. The program is funded through the rate base.
- Rural customers, in particular those with electrical heating, pay higher monthly bills.

## Typical Residential Monthly Bills (\$)

*As of May 1, 2016 (750 kWh/month)*

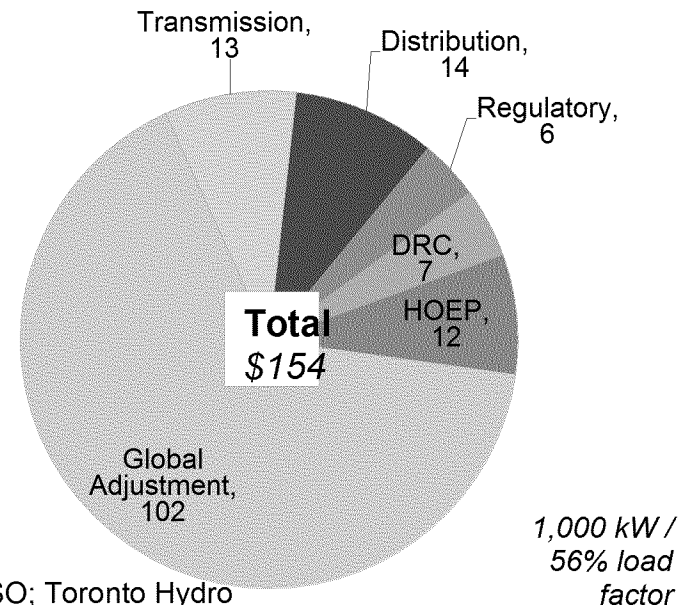


Source: OEB, Toronto Hydro

## Commercial Electricity Prices

- There are approximately 400,000 commercial and institutional consumers in the province. These consumers are Class B consumers, and have separate line items on the electricity bill for HOEP and GA.
- There is a high degree of differentiation amongst consumers within the commercial sector in terms of size and consumption patterns. For example, an elementary school has a much different hourly load profile compared to a full service restaurant. This is an important consideration when looking at the bill impacts of policy options.

**Typical Commercial Price (\$/MWh)**  
YTD June 2016 (Non-RPP Class B)



Source: IESO; Toronto Hydro

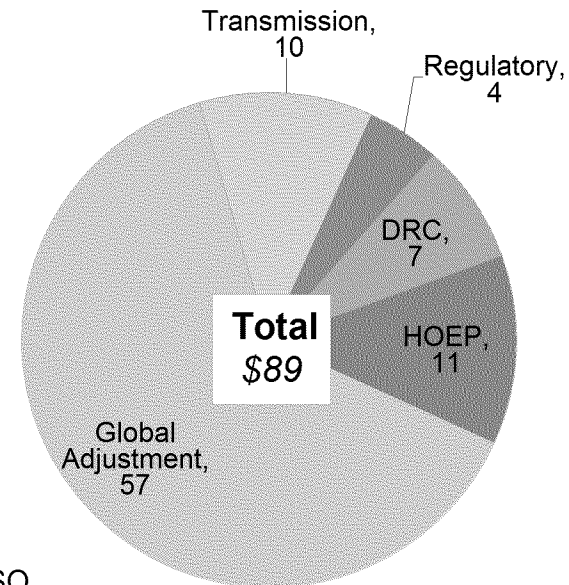
- Consumers in the commercial sector do not pay time-of-use prices and have little incentive to shift demand away from high demand hours.
- Targeted pricing programs are currently not available for Class B consumers.

\* **Note:** Most commercial consumers receive input tax credits for their HST.

## Industrial Electricity Prices

- There are about 300 large industrial consumers in Ontario.
- Measures in place to mitigate industrial electricity prices include ICI and NIERP.
- ICI lowers costs for eligible large electricity consumers (i.e., those with monthly peak demand exceeding 3 MW) that reduce consumption during peak periods.
  - ICI consumers reduce their electricity rates by 25% on average.

### Typical Large Industrial Price (\$/MWh) YTD June 2016



Source: IESO

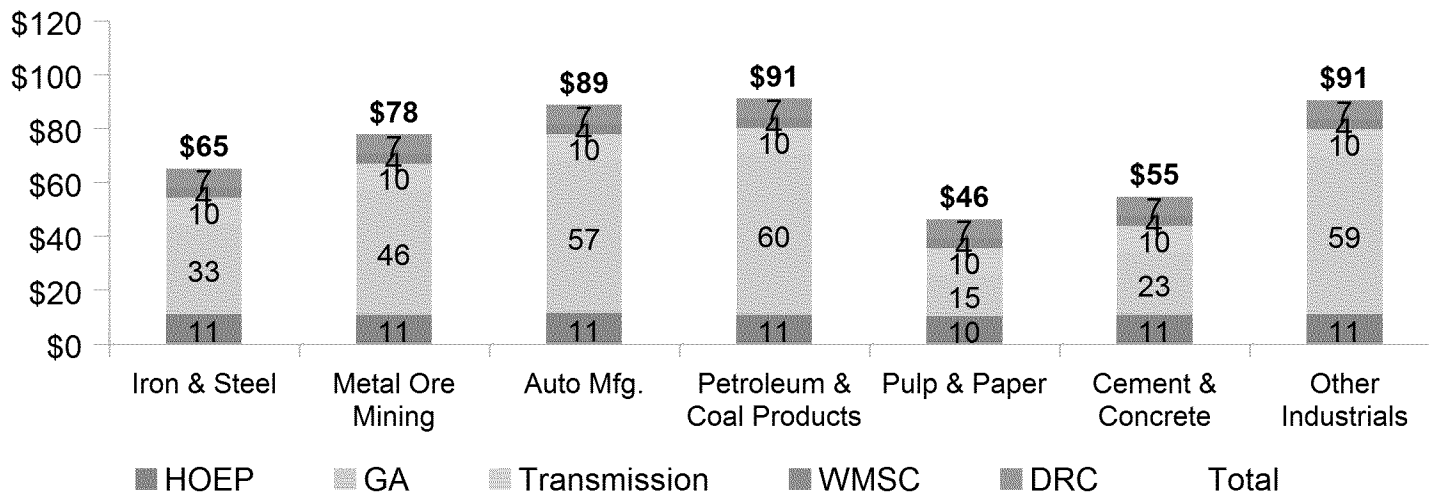
- Participants in NIERP receive a rebate of \$20/MWh. On average, industrial electricity prices are reduced by about 20% through the program, reducing all-in prices to \$64/MWh for these consumers. The program is funded through the tax base.

\* **Note:** Industrial consumers receive input tax credits for their HST.

## Industrial Electricity Prices by Sector

- While industrial consumers (Class A) benefit from participation in the ICI program, there is a significant amount of variability in the ability to shift away from peak periods across customer classes, impacting the savings achieved.
- The below chart shows the prices paid in 2015 across a number of industrial sectors. Consumers in the north that receive rebates under the Northern Industrial Electricity Rate Program (NIERP) achieve rates that are \$20/MWh lower than the below.

**Average all-in Class A, Transmission-connected Electricity Prices by Industrial Sector (estimated \$/MWh), Year-to-Date June 2016**



**Note:** HOEP = Hourly Ontario Energy Price, GA = Global Adjustment, WMSC = Wholesale Market Service Charges, DRC = Debt Retirement Charge

## saveONenergy Conservation Programs

| Program                        | Consumer Type | Description                                                                                                                                                                                                                                                     |
|--------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heating and Cooling Initiative | Residential   | Provides rebates to help offset the cost of purchasing and installing new heating and cooling equipment in the home.                                                                                                                                            |
| Coupons                        |               | Available in-store for one month in the spring and fall and can be downloaded year-round to use at participating retailers to help Ontarians save on a wide range of energy-efficient products including LED bulbs, power bars with integrated timers and more. |
| Audit Funding                  | Business      | Up to 50% of the cost of an energy audit to identify opportunities for energy efficiency upgrades and eligible incentives.                                                                                                                                      |
| Retrofit Program               |               | Provides various incentives for as much as 50 per cent of project costs, and advanced funding for assisted and social housing buildings, for updating old or inefficient equipment, including lighting, motors, unitary AC or packaged rooftop units.           |
| Small Business Lighting        |               | Provides incentives for new energy efficient lighting.                                                                                                                                                                                                          |
| New Home Construction          |               | Designed to encourage home builders and renovators to construct energy-efficient homes, and includes incentives for installation of energy-efficient measures.                                                                                                  |
| Training and Support           |               | Helps provide access to the most up-to-date training, such as in building commissioning, certified measurement and verification, and how to be an energy manager.                                                                                               |
| Process and Systems            |               | Provides up to \$50,000 for engineering studies and up to 70% of capital costs for energy efficiency upgrades.                                                                                                                                                  |
| Industrial Accelerator Program |               | Assists eligible transmission-connected companies to fast track capital investment in major energy conservation projects.                                                                                                                                       |

## HST – Overview

- The HST is a value-added tax. Unlike a sales tax, under a value-added tax most businesses effectively do not pay tax on their inputs because they are able to claim input tax credits (ITCs).
  - Through ITCs, the HST removes embedded sales taxes paid by businesses.
  - Only HST registrants that have taxable sales can claim ITCs. Businesses selling HST-exempt goods or services (such as financial services) are not eligible to claim input tax credits.
- Unlike businesses engaged in commercial activities, Public Service Bodies (PSBs) are generally not eligible to claim input tax credits. Instead, they can recover a portion of the HST paid by applying for PSB rebates from the Canada Revenue Agency.
  - PSBs consist of municipalities, universities, public colleges, school authorities, hospital authorities and charities and qualifying non-profit organizations.
  - See Appendix for additional information.
- To help low- to moderate-income individuals and families with the sales tax they pay on home energy costs (including electricity), Ontario provides tax relief through the energy component of the Ontario Energy and Property Tax Credit (OEPTC).
  - For the 2016 benefit year, eligible families and single people could get up to \$224 to help with these costs, totalling about \$445 million in tax relief.
- Ontario also provides tax relief through the Ontario Sales Tax Credit (OSTC), which was enhanced in 2010 to help low- to moderate- income individuals and families with the overall sales taxes they pay.
  - For the 2016 benefit year, eligible individuals can get up to \$291 plus additional amounts of up to \$291 for their spouse and each of their dependant children under age 19.
  - The 2016 OSTC is estimated to provide about \$1.3 billion in tax relief.

## Placeholder – HST Exemptions in Other Jurisdictions

| Jurisdiction                     | Tax  | Business                                                                                                   | Residential                                                                                                                                                           | Comment                                                                                                                                                                                                                                                       |
|----------------------------------|------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>British Columbia</b>          | PST  | Yes – 7%                                                                                                   | No                                                                                                                                                                    | <ul style="list-style-type: none"> <li>PST does not apply to residential energy, including electricity, acquired solely for residential use in a residential dwelling</li> <li>BC's carbon tax does not apply to electricity bills.</li> </ul>                |
| <b>Alberta</b>                   | None | N/A                                                                                                        | N/A                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Alberta does not have a provincial sales tax.</li> </ul>                                                                                                                                                               |
| <b>Saskatchewan</b>              | PST  | Yes – 5%<br>Except for electricity purchased to heat a building.                                           | No                                                                                                                                                                    | <ul style="list-style-type: none"> <li>PST does not apply to electricity purchased for use in a residential dwelling.</li> <li>PST does not apply to electricity purchased for use in heating a building that is heated solely by the electricity.</li> </ul> |
| <b>Manitoba</b>                  | PST  | Yes – 8%<br>Reduced rate of 1.6% applies to electricity used by a qualifying business to operate machinery | Yes – 8%<br>Electricity purchased for mixed use, 80% of which is home heating, has a reduced rate of 1.4%. Electricity solely to heat the purchaser's home is exempt. | <ul style="list-style-type: none"> <li>Winnipeg also applies a tax of 2.5% on residential and 5% on commercial.</li> </ul>                                                                                                                                    |
| <b>Ontario</b>                   | HST  | Yes (less ITC (input tax credits))                                                                         | Yes – 8%                                                                                                                                                              |                                                                                                                                                                                                                                                               |
| <b>Quebec</b>                    | QST  | Yes (less ITCs)                                                                                            | Yes – 9.975%                                                                                                                                                          |                                                                                                                                                                                                                                                               |
| <b>Nova Scotia</b>               | HST  | Yes (less ITCs)                                                                                            | Yes – 10% less provincially administered rebate.                                                                                                                      | <ul style="list-style-type: none"> <li>Rebate is equal to the provincial portion of the HST, and is administered similar to OCEB, but applies to many energy sources.</li> </ul>                                                                              |
| <b>New Brunswick</b>             | HST  | Yes (less ITCs)                                                                                            | Yes – 10%                                                                                                                                                             |                                                                                                                                                                                                                                                               |
| <b>Prince Edward Island</b>      | HST  | Yes (less ITCs)                                                                                            | Yes – 9% (10% beginning Oct 1, 2016)                                                                                                                                  |                                                                                                                                                                                                                                                               |
| <b>Newfoundland and Labrador</b> | HST  | Yes (less ITCs)                                                                                            | Yes – 10%                                                                                                                                                             | <ul style="list-style-type: none"> <li>Had a provincially administered Home Heating Rebate program until July 2015.</li> </ul>                                                                                                                                |
| <b>Federal</b>                   | GST  | Yes (less ITCs)                                                                                            | Yes – 5%                                                                                                                                                              |                                                                                                                                                                                                                                                               |



## HST – Considerations

- An across-the-board 8% rebate could be criticized as providing HST relief to those who effectively do not pay HST (businesses) as well as to those who receive HST relief through Public Service Body rebates or income tax relief.
- Providing a rebate equivalent to the 8% provincial portion of the HST on electricity, could lead to pressure to provide similar relief for other fuels and energy sources.
  - Ontarians who heat their homes with electricity will benefit from the provincial rebate, while Ontarians who heat their homes with natural gas, heating oil, propane, etc. would continue to pay the full 13% HST on those other energy sources.
  - The costs of natural gas, heating oil, propane, etc. are expected to increase as a result of Ontario's forthcoming cap and trade program.
- The provincial rebate would be an amount equal to the 8% provincial portion of the HST on electricity. OCEB, in contrast, was 10% of the bill including HST.
- The Province may also need to change the reporting for the cost of the energy component of the Ontario Energy and Property Tax Credit, which provides relief for HST on home energy. The energy component is reported as an offset of HST revenue.
  - Ministry program expenses could increase by as much as \$445 million (TBC).
- The greater degree of complexity in the design of the program, the more difficult it will be to draft, implement and administer.
- To improve the province's ability to track impacts and program outcomes, subsequent legislative amendments to enable exchanges of data with LDCs could be considered.

## Additional Information – Public Service Bodies

- Unlike businesses engaged in commercial activities, Public Service Bodies (PSBs) are generally not eligible to claim input tax credits. Instead, they can recover a portion of the HST paid by applying for PSB rebates from the Canada Revenue Agency.
- Ontario's rebate rates are intended to keep these sectors fiscally neutral relative to the Retail Sales Tax they paid on their inputs under the former RST system.

| REBATE RATES FOR PSBs                              |              |              |
|----------------------------------------------------|--------------|--------------|
| PSB Type                                           | Ontario (8%) | Federal (5%) |
| Municipalities                                     | 78%          | 100%         |
| Universities & Public Colleges                     | 78%          | 67%          |
| School Authorities                                 | 93%          | 68%          |
| Hospital Authorities                               | 87%          | 83%          |
| Charities and Qualifying Non-Profit Organizations* | 82%          | 50%          |

*\*A qualifying non-profit organization receives at least 40% of its funding from government.*

## Placeholder – Electricity Bill Mock-Up

## Industrial Conservation Initiative (ICI) – Overview

- In January 2011, Ontario amended O.Reg. 429/04 to implement the Industrial Conservation Initiative (ICI). This initiative established two classes of consumers:
  - “Class A” consumers are those with monthly peak demand exceeding 5 MW. They are charged global adjustment (GA) on the basis of their contribution to system peak demand during the highest 5 system demand hours of the year.
  - “Class B” consumers are all other consumers. They continue to be charged GA as a flat rate applied to their consumption.
- In May 2014, O.Reg. 429/04 was further amended to admit all consumers with monthly peak demand between 3 and 5 MW within certain energy-intensive industrial sectors into the ICI.
- This change has been successful in:
  - Incenting large consumers to significantly reduce their peak demand during the highest demand hours of the year, and
  - Providing large industrials with the ability to manage their electricity costs and remain competitive with competing jurisdictions.

## Expected Numbers of Newly Eligible ICI Consumers

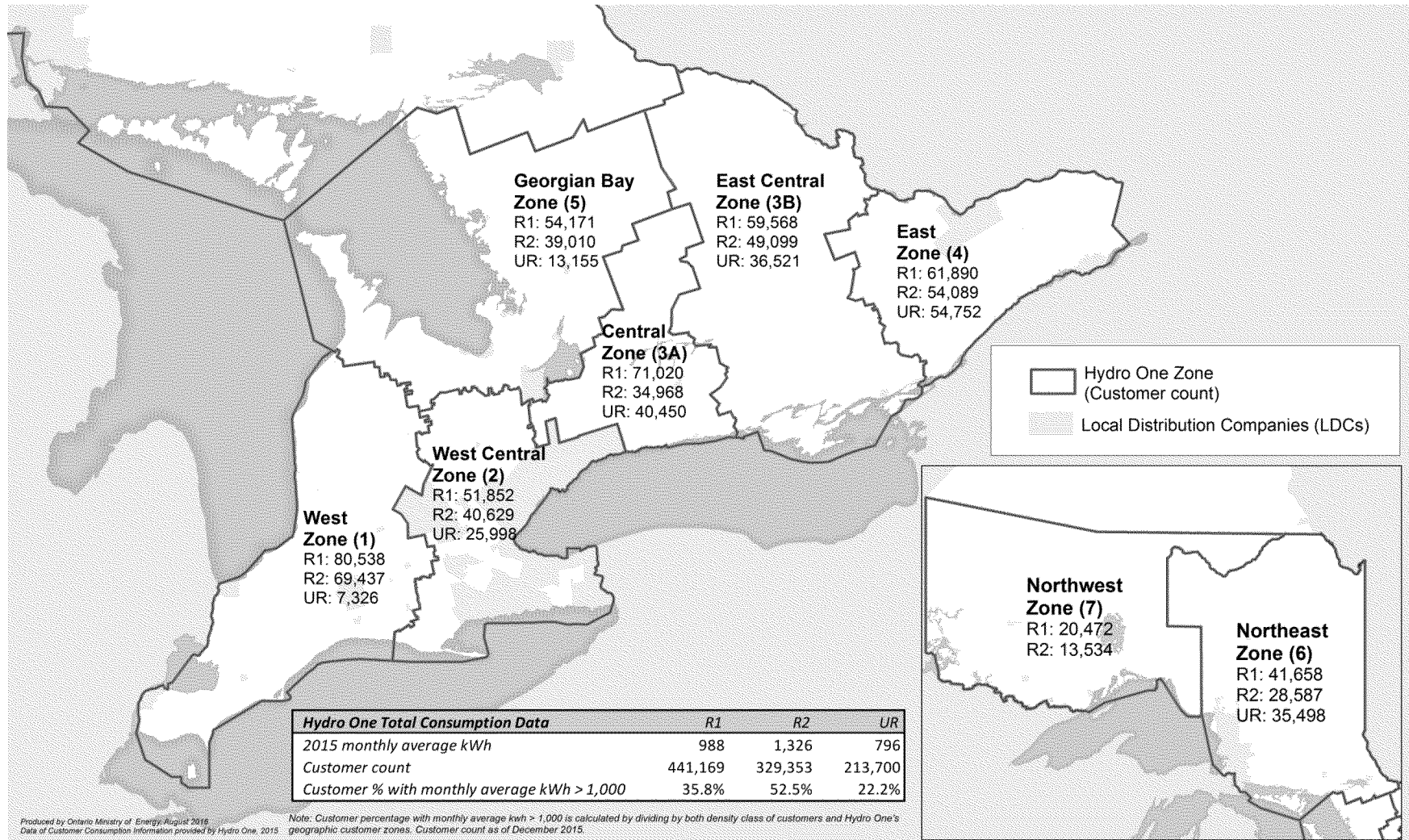
- As part of its ICI survey, Navigant collected data on the number of consumers in the 1-2 MW, 2-3 MW and 3-5 MW categories. Navigant's response rate for the survey was approximately 76%. Approximately 300 consumers are currently participating in ICI.
- The table below sets out the number of consumers in each tranche from the survey along with an "adjusted number" which estimates the actual total number of customers in each tranche in the province (i.e., it accounts for the response rate).
- As expected, there are a greater number of consumers in the 1 -2 MW category than in the 2 – 3 MW category.

|                                             | 1-2 MW | 2-3 MW | 3-5 MW* |
|---------------------------------------------|--------|--------|---------|
| # of customers – ICI survey                 | 649    | 197    | 171     |
| # of customers – Adjusted for response rate | 854    | 259    | 225     |

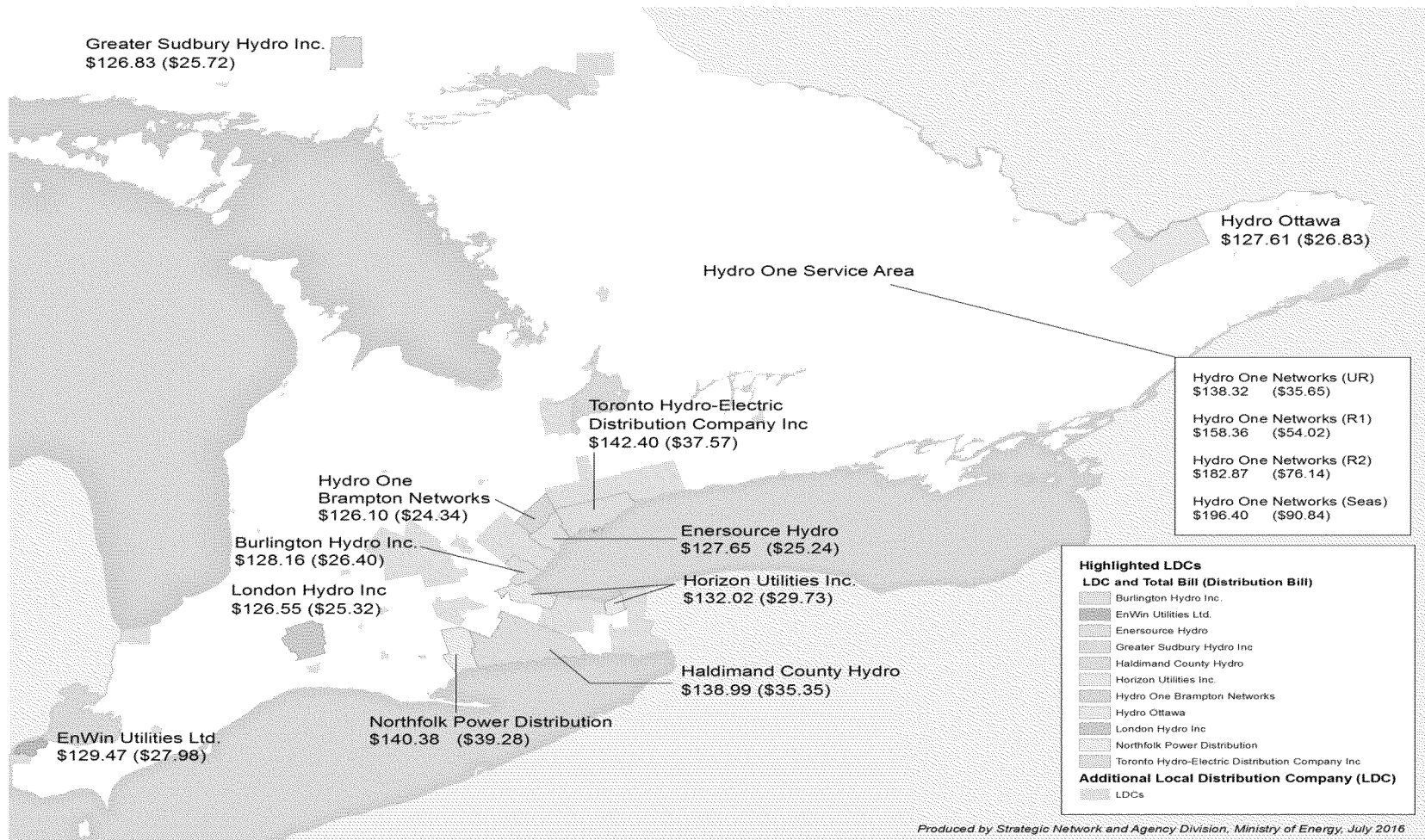
Source: Navigant; Ministry of Energy

\* Includes consumers that are already eligible for and participating in ICI. ENERGY estimates that approximately 75 of 225 estimated consumers in the 3-5 MW category are participating in ICI.

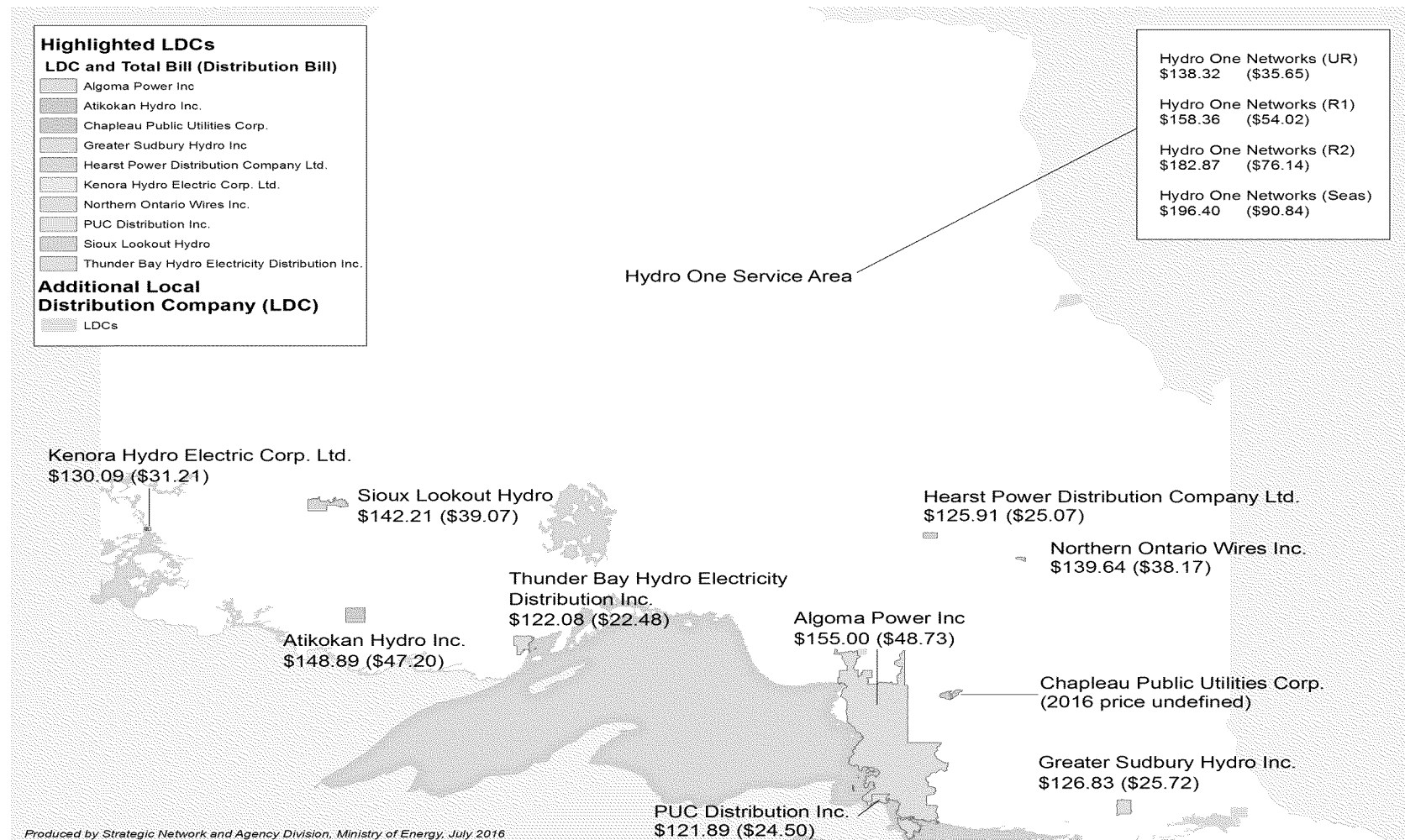
# Hydro One Consumers by Customers Class



# Selected Rate Comparison – Total Bill and Distribution Rate



# Selected Rate Comparison – Total Bill and Distribution Rate





## Alignment With Climate Change Action Plan

- Ontario's Climate Change Action Plan (CCAP) commits \$6.0 – 8.3 billion over 4 years to greenhouse gas (GHG) reduction initiatives, funded by Cap and Trade auction proceeds.
- The CCAP includes up to \$1.32 billion over 4 years to help keep electricity rates affordable for residential and industrial consumers. This initiative is estimated to reduce up to 3,000,000 tonnes of greenhouse gas (GHG) emissions by 2020.

| <b>\$ Billions</b>                  | <b>2017-18</b>   | <b>2018-19</b>   | <b>2019-20</b>   | <b>2020-21</b>   | <b>Total</b>     |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Total Committed in CCAP             | \$1.5 – 2.1      | \$1.5 – 2.1      | \$1.5 – 2.1      | \$1.5 – 2.1      | \$6.0 – 8.3      |
| <i>Electricity Price Mitigation</i> | <i>Up to 0.3</i> | <i>Up to 0.3</i> | <i>Up to 0.3</i> | <i>Up to 0.3</i> | <i>Up to 1.3</i> |

- Ontario's *Climate Change Mitigation and Low-carbon Economy Act, 2016* requires that all proceeds generated from Cap and Trade be used to help reduce greenhouse gas emissions.
- Should a portion of CCAP funding currently allocated to Electricity Price Mitigation be used to offset rate increases for certain industrial consumers, the remaining CCAP funding could provide a fiscal plan offset to the overall initiative by funding other existing initiatives that help reduce greenhouse gas emissions – for example:
  - Regional Express Rail;
  - Hamilton LRT;
  - Hurontario LRT; and
  - Energy efficiency in schools.