

RESIDENTIAL ELECTRICITY PRICES

What is the current status of residential electricity prices in Ontario?
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SUGGESTED RESPONSE ON PRICE MITIGATION:

- Ontario is taking action to reduce electricity bills for families, farms and businesses.
- We're doing this because we know that families need help with the cost of everyday living. Despite consistent economic growth since the global recession, many families aren't feeling Ontario's resurgence in their everyday lives.
- We also recognize that rebuilding and cleaning up Ontario's electricity system has come at a cost. Over the last decade we've rebuilt our transmission and distribution grid, we've invested in clean generation and we've closed the last "dirty coal-fired" power plant. But we need to take the next step in ensuring that clean, reliable system is affordable.
- We're able to take action now because years of careful management is leading to a balanced budget in 2017-18; and we believe that Ontarians should be the first to benefit from the province's fiscal discipline.
- Recognizing this, we are introducing new measures that would take effect January 1, 2017, including:
 - Rebating provincial portion of the HST to reduce eligible residential, small business and farm electricity bills by 8% (\$130 annually);
 - Providing eligible rural ratepayers with additional relief, decreasing total electricity bills by an average of \$540 a year or \$45 each month; and
 - Empowering additional large electricity consumers to reduce bills by up to one third through the Industrial Conservation Initiative (ICI). Note: The rate mitigation will only benefit commercial and industrial electricity consumers.
- Taken together, this plan represents one of the single largest actions to reduce costs for electricity consumers in the province's history. It will provide needed assistance to consumers of all sizes, and it targets support to those that need it most.
- In addition, the government removed the Debt Retirement Charge (DRC) from residential electricity bills as of January 1, 2016. This will save a typical residential electricity ratepayer that uses 750 kilowatt hours per month about \$65 per year.
- The proposed HST rebate and RRRP increase would be in addition to the existing programs that provide support to Ontario families in paying their bills:
 - The Ontario Energy and Property Tax Credit saves qualifying individuals up to \$1,008 per year, with a maximum of \$1,148 per year for qualifying seniors.
 - The Low-Income Energy Assistance Program provides emergency financial support of up to \$600 for families and individuals having trouble paying their bills.
 - The Northern Ontario Energy Credit helps families and individuals in Northern Ontario by providing tax credits for low- to middle-income families and individuals living in northern Ontario. The maximum annual credit for a single person is \$146, and for a family (including single parents), is \$224.

- Existing electricity conservation programs also help consumers manage their electricity bills.
 - The saveONenergy Home Assistance Program was specifically developed to help income-eligible homeowners and tenants manage their energy use and costs by offering detailed in-home energy assessments and installing energy-saving measures at no cost. Social and assisted housing providers also qualify for assistance in making their buildings more energy efficient.

ONTARIO ELECTRICITY SUPPORT PROGRAM:

- The government recognizes that the price of electricity can be difficult for those that pay a higher share of their income towards the bill – particularly low-income families and seniors on a fixed income. For many low-income Ontarians, paying their electricity bill can be a challenge, with this monthly expense representing a greater portion of their income.
- That is why the OEB developed the Ontario Electricity Support Program (OESP), which provides an ongoing rate reduction directly on the bills of low-income electricity consumers who have applied and meet the eligibility requirements.
- OESP monthly credits range from \$30 to \$50. A household receiving the lowest OESP credit would receive \$360/ year off their bills, or \$430/ year when combined with the removal of the DRC.
- OESP customers with unique electricity needs could be eligible for a higher level of assistance.

SUGGESTED RESPONSE ON ELECTRICITY PRICES:

- Our government continues to ensure a clean, reliable and affordable electricity system for all Ontarians.
- Prices are increasing because our energy system is being transformed – we are making needed investments to modernize the system. We chose to replace coal-fired generation with cleaner sources of energy, which benefit our environment and the health of Ontarians.
- As we plan for Ontario's electricity needs for the next 20 years, conservation will be the first resource considered, wherever cost-effective. Conservation is the cleanest and most cost-effective energy resource, offers customers a way to reduce their electricity bills and reduces the need to build new generation, distribution and transmission infrastructure
- The 2013 Long Term Energy Plan (2013 LTEP) forecasted a typical monthly residential bill of \$159 in 2016, adjusted for 750 kWh usage. A typical monthly residential bill at current rates is about \$157.
- The 2013 LTEP forecast for residential bills indicates an annual average increase of 3.2% per year from 2016 to 2020 inclusive. From 2016 to 2032 inclusive, the forecast for residential bills indicates an annual average increase of 1.7%.
- Over the forecast period, the average annual increase in consumers' costs is generally in-line with expected inflation, which averaged about 1.7% over the last ten years (2006-2015).
- The government removed the Debt Retirement Charge (DRC) from residential electricity bills as of January 1, 2016. This will save a typical residential electricity ratepayer about \$65 per year.

According to the National Energy Board's *Energy Futures* 2016 publication, residential electricity prices are expected to increase in most Canadian provinces until 2032.

RPP PRICES:

- The Ontario Energy Board (OEB) sets Regulated Price Plan (RPP) prices every 6 months based on projected supply cost so Ontarians know what to expect.
- On November 1, 2016, OEB announced that RPP prices will remain at the rates set in May of this year. This means most residential and small business customers will continue to pay the same Time-of-Use rates they are currently until Spring 2017.
- The OEB's review determined that the prices customers have been paying since May 1 will be effective at recovering forecasted costs.

If pressed on RPP prices and how they are determined:

- Our government continues to work hard to help Ontarians manage their electricity costs.
- The Ontario Energy Board (OEB) is the independent energy regulator for Ontario and is responsible for setting Regulated Price Plan (RPP) prices twice a year so Ontarians know what to expect. The OEB sets the RPP prices based on the balance of costs and consumption.
- The RPP prices are based on a projection of the cost to supply electricity over the upcoming 12-month period and a forecast of electricity consumption. Actual costs and consumption are often different than forecast, so the RPP prices include an adjustment to make up for any shortfall or excess from the previous period.
- The RPP "time-of-use" prices are not changing on November 1st because an increase in costs associated with the RPP variance account is expected to be offset by a slight reduction in supply costs.

BACKGROUND:

Price Mitigation Programs – Low-volume Consumers:

- The **Ontario Energy and Property Tax Credit (OEPTC)** provides low- to moderate-income Ontarians, including seniors, who own or rent a home with help paying both their energy costs and property tax.
 - Qualifying individuals can receive up to \$1,008,993 in tax relief annually, and seniors can receive up to \$1,148,131 annually.
- The **Northern Ontario Energy Credit (NOEC)** provides assistance to low- to moderate income individuals and families living in northern Ontario who can be exposed to higher energy costs due to more severe winters and heavier reliance on more expensive home heating fuels.
 - Qualifying individuals can receive up to \$146 annually and families (including single parents) can receive up to \$224 annually.
- The **Low-Income Energy Assistance Program (LEAP)** offers emergency financial assistance as on-bill assistance up to \$600 annually, special customer service rules, and energy conservation programs to qualifying electricity and natural gas consumers.
- The **saveONenergy Home Assistance Program** was developed to help income-eligible consumers manage their energy costs by providing home energy efficiency assessments and energy savings measures at no cost.
 - Eligible participants can receive energy efficient appliances like refrigerators and window air-conditioners. Eligible participants in electricity heated homes can also receive a programmable thermostat, weatherstripping services and insulation services.
- The **Ontario Electricity Support Program (OESP)**, developed and implemented by the Ontario Energy Board (OEB) provides an ongoing rate reduction directly on the bills of low-income electricity consumers who have applied and meet the eligibility requirements. The OESP started January 1, 2016, when the OCEB ended.
 - The OESP provides a fixed monthly credit directly on eligible customers' bills, the amount of which will be based on a consumer's household income and household size. This allows the program to provide the greatest benefit to low-income consumers in need of assistance.
- To help ease pressure on residential ratepayers, the government **removed the cost of the Debt Retirement Charge (DRC) from residential electricity bills** as of January 1, 2016:
 - Eliminating the DRC saves a typical residential electricity ratepayer \$5.60 per month, before taxes;
 - The removal of the DRC from residential ratepayers' electricity bills was implemented through regulations to exempt residential electricity ratepayers from the DRC.
 - Non-residential electricity users already pay the DRC and will continue to pay it at the same rate; and
 - The government introduced legislation that provides a legislated date of April 1, 2018 to remove the DRC for all non-residential consumers – nine months earlier than previously estimated.
- Debt Retirement Charge (DRC) background:
 - The DRC was paid by nearly all customers in Ontario;

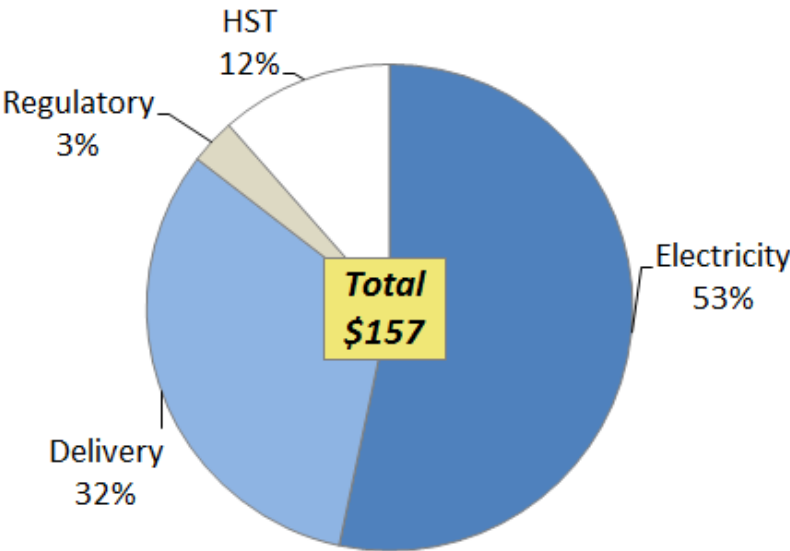
- The charge of 0.7¢/kWh is set by the Ministry of Finance to pay down the debt and liabilities of the former Ontario Hydro (there are some exceptions to the 0.7¢/kWh rate);
- The residual stranded debt is the stranded debt less the estimated present value of certain dedicated revenues to OEFC, such as future payments-in-lieu of taxes and the gross revenue charge to be paid; and
- The residual stranded debt determination as at March 31, 2014⁵, was calculated to be \$2.26 billion.

Electricity Conservation Programs

- Ontario has a number of programs in place that help consumers save money on their electricity bills and improve their home comfort. These are delivered by electricity utilities.
- For the residential sector:
 - The saveONenergy Heating and Cooling Initiative provides rebates to help offset the cost of purchasing and installing new heating and cooling equipment in the home, such as a high efficiency furnace with an electronically commutated motor (ECM), or an ENERGY STAR certified central air conditioner.
 - saveONenergy Coupons are 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 or auto-shutoff and more.
 - In October 2015, Hydro One launched Heat Pump Advantage to help customers with electric space or water heating to take advantage of new heat pump technologies. Hydro One will pay 50% of costs for an industry-leading air source heat pump and up to \$800 towards costs of a heat pump water heater.

GENERAL BACKGROUND ON ELECTRICITY PRICES

Typical Residential Monthly Bill
November 1, 2016 RPP TOU prices, 750 kWh



Source: Ministry of Energy calculations based on Toronto Hydro rate order

Table 1: Residential Electricity Prices – North America (Canadian cents/kWh)

Pricing Comparison							
2015 Residential Electricity Prices (Canadian ¢/kWh)							
Jurisdiction	Cost	Jurisdiction	Cost	Jurisdiction	Cost	Jurisdiction	Cost
1 Quebec	7.19	17 Missouri	12.90	33 Florida	15.31	49 Delaware	17.62
2 Manitoba	8.11	18 Tennessee	13.12	34 Texas	15.33	50 Michigan	18.02
3 British Columbia	10.29	19 Mississippi	13.12	35 Arizona	15.38	51 Wisconsin	18.36
4 Washington	11.17	20 South Dakota	13.56	36 Minnesota	15.39	52 New Jersey	20.24
5 Newfoundland	11.55	21 Oregon	13.66	37 Prince Edward Island	15.62	53 Maine	20.75
6 Alberta	11.61	22 Utah	13.74	38 Kansas	15.70	54 California	21.27
7 Louisiana	11.74	23 Wyoming	13.82	39 South Carolina	15.94	55 Vermont	21.87
8 North Dakota	11.82	24 Montana	13.96	40 Illinois	15.96	56 New York	24.57
9 Arkansas	12.08	25 Georgia	14.14	41 Ohio	15.96	57 Rhode Island	25.30
10 New Brunswick	12.30	26 Indiana	14.29	42 New Mexico	16.00	58 New Hampshire	25.31
11 West Virginia	12.31	27 Iowa	14.37	43 Nova Scotia	16.03	59 Alaska	25.48
12 Canadian Average	12.46	28 Saskatchewan	14.37	44 U.S. Average	16.15	60 Massachusetts	27.83
13 Oklahoma	12.66	29 North Carolina	14.39	45 Pennsylvania	17.21	61 Connecticut	28.47
14 Kentucky	12.78	30 Virginia	14.42	46 Nevada	17.30	62 Hawaii	40.65
15 Nebraska	12.87	31 Alabama	15.07	47 Maryland	17.42		
16 Idaho	12.90	32 Colorado	15.25	48 Ontario	17.57		

Note: Estimates may differ from actual costs to a consumer based on location, connection, and operational characteristics. Prices exclude taxes and participation in any applicable jurisdictional benefit programs.

The Ontario residential price is based on the residential bill in the Q2 2015 Ontario Energy Report.

All other Canadian prices (except Ontario) are from the Hydro Quebec Rate Comparison for rates effective April 1, 2015 for select local distribution companies servicing specific cities. Where Hydro Quebec reports prices for two cities in a province (e.g., Calgary and Edmonton), an average of the two is used; in provinces where only one city is reported (e.g., Vancouver in BC, Montreal in QC), that one price is used to represent the province for indicative comparison purposes.

American jurisdictions reflect year-to-date May 2015 data from the US Energy Information Administration's survey of approximately 500 of the largest electric utilities. The price reflects the average revenue reported by the electric utility from electricity sold to the industrial sector. The value represents an estimated average retail price, but does not necessarily reflect the price charged to an individual consumer. Prices are converted at an exchange rate of 1 USD = 1.30 CAD.

Residential and Small Business Consumers:

i. Regulated Price Plan (RPP):

- About 4.9 million residential and small business (demand <50kW) consumers pay either Time-Of-Use (TOU) or tiered rates under the RPP.
- RPP prices are reviewed twice per year by the OEB and are adjusted as required on May 1 and November 1.
- To calculate RPP prices, the OEB forecasts the cost to supply electricity to residential and small business consumers for the next 12 months. These forecasts include factors such as:
 - Forecast natural gas prices;
 - Supply forecasts from each type of generation (nuclear, hydroelectric, natural gas, etc.);
 - Electricity consumption forecast; and
 - Any variance recovery (the over/under-collected electricity costs) from the previous period.

a. Time-of-use (TOU) Customers – approximately 4.6 million consumers:

- TOU prices are intended to provide an incentive to consumers to shift consumption away from high demand periods when the cost to meet province-wide demand is higher.
- The following prices are effective November 1, 2016:

Category	Times	Price	Change
Off-peak	Weekdays 7pm-7am All day weekends and holidays	8.7 ¢/kWh	-
Mid-peak	Weekdays 11am-5pm	13.2 ¢/kWh	-

On-Peak	Weekdays 7pm-11am and 5pm-7pm	18.0 c/kWh	-
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- Residential consumers typically consume about 65% of their electricity during off-peak hours, 17% in mid-peak hours and 18% in on-peak hours.
- b. Tiered Price Customers – approximately 440,000 residential and small business customers:
- Consumers still pay tiered prices that are based on the amount of electricity consumed rather than the time at which the electricity is consumed.
 - The threshold is 600 kWh from May to October and 1,000 kWh from November to April, to reflect the fact that households require more electricity in winter months.

Category	Times	Price	Change
1st level	Up to 1,000 kWh	10.3 c/kWh	-
Peak	Everything over 1,000 kWh	12.1 c/kWh	-

- The threshold for business customers is 750 kWh/month and does not change throughout the year.
 - Effective April 14, 2016, the OEB began using 750 kWh as the standard for reporting the monthly electricity consumption of a typical residential customer, down from 800 kWh used in previous reports and the 2013 Long-Term Energy Plan (2013 LTEP).

Table 2: Components of a Residential (i.e., RPP) Electricity Bill

Component	Subcomponents	Notes	Monthly Cost for a typical RPP TOU consumer in Toronto (November 1, 2016)
Electricity	Hourly Ontario Energy Price (HOEP) + Global Adjustment (GA)	HOEP is the hourly price that reflects the short term cost of producing power. Global adjustment mechanism ensures recovery of long-term generation and conservation costs.	\$84
Delivery	Transmission + Distribution	Costs to build and maintain the high-voltage transmission grid and distribution lines, towers and poles. A portion of these charges are fixed, while others are variable and increase with the amount of electricity usage.	\$50
Regulatory	IESO fees, uplifts, rural/remote settlement	The costs of administering the wholesale electricity system, maintaining the reliability of the provincial grid and providing financial assistance to consumers in rural and remote areas of the province, and the Ontario Electricity Support Program..	\$5

HST	n/a	Applied at a rate of 13%	\$18
Total:			\$157

ii. Fixed-price contract:

- Approximately 350,000 residential and small business consumers (demand less than 50 kW):
 - Purchase electricity at a fixed rate from private electricity retailers;
 - A small number of consumers are on fixed-price contracts with private electricity retailers;
 - Contracts typically last three to five years; and
 - Global Adjustment (GA) is charged in addition to the retail contract price.

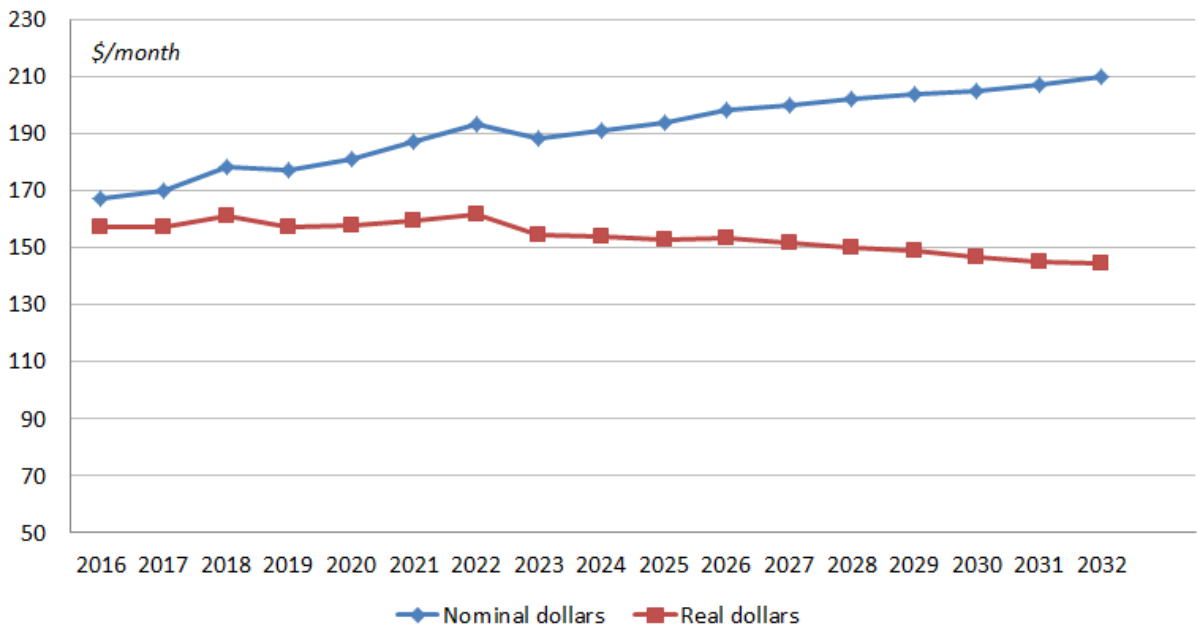
Electricity Price Projections:

A. Residential Rates

- Residential bills are expected to rise at a much higher rate than inflation over the short term, while moderating over the longer term. The short term increase is primarily due to the expiry of the Ontario Clean Energy Benefit (OCEB), legislated to end on December 31, 2015, which had provided a 10% rebate for residential consumers .

LTEP Residential Bill Projections

2015 to 2032



- The forecast average annual increase in Ontario over the 2016 to 2032 period is comparable to projected increases in New England, the northeastern US and the US midwest.
- The National Energy Board (NEB) forecasts similar rate increases in BC, Alberta, Manitoba and Quebec over the long-term.

Residential Electricity Price Forecast				
	2016 vs. 2020	2016 vs. 2025	2016 vs. 2032	avg. annual change
Ontario - 2013 LTEP	8%	16%	25%	1.4%
Removal of DRC	14%	22%	32%	1.7%
Select Canadian Provinces				
Alberta	22%	72%	126%	5.2%
BC	11%	24%	45%	2.3%
Manitoba	13%	25%	45%	2.3%
New Brunswick	9%	21%	39%	2.1%
Newfoundland and Labrador	25%	31%	40%	2.2%
Nova Scotia	9%	21%	40%	2.1%
PEI	9%	18%	40%	2.1%
Quebec	9%	21%	39%	2.1%
Saskatchewan	13%	31%	61%	3.0%
Select US Regions				
New England	22%	51%	75%	3.6%
Northeast	19%	45%	72%	3.4%
Midwest	12%	29%	51%	2.6%

Note: Average annual change reflects 2016 to 2032

Source: Ontario reflects the Ministry of Energy's Long-Term Plan 2013;

all other provinces reflect NEB's Energy Futures 2016; select US regions reflect EIA's Annual Energy Outlook 2015. EIA data is by US census region - New England reflects New England, Northeast US reflects Middle Atlantic census region, and Midwest reflects an average of East North Central and West North Central.