Impact of Select Electricity Relief Programs and Tax Credits on Residential Monthly Electricity Bills

Ministry of Finance / Ministry of Energy

October 12, 2016

Overview

- The Financial Accountability Office (FAO) released a commentary on September 27, 2016, that showed average household home energy costs (multiple fuels, including electricity) by region and by income. It found:
  - average spending on home energy varies significantly by region - northern families spend more on average; and
  - average home energy spending also varies with household income - higher income families spend more on home energy, though it is a lower percentage of their income.
- MOF, using Statistics Canada publicly-available information, produced similar results on home energy spending by income.
- The FAO did not calculate the cost of home energy net of government support programs, although the report did highlight the key ones available.
- The Ministry of Finance and Ministry of Energy worked together to create case examples that demonstrate the residential monthly electricity costs after taking into account select electricity relief programs and tax credits attributable to electricity usage.
- The cases chosen show that:
  - low-income families are well-supported;
  - northern and farm families in low-density areas are paying higher electricity costs that reflect higher usage, assuming electric heating for the case example chosen, and a higher cost of distribution; and,
  - modest income families receive little support.

Enhancing the FAO Analysis

- Attempting to enhance the FAO analysis by including the average benefit from the support programs to show net home energy costs would be unreliable and underestimate their benefit.
  - Trying to determine reasonable average credit and benefit amounts for the income groups used in the FAO report would be, at best, an educated guess. This was a crucial caveat raised by the FAO in their report.
  - MOF has, in the past, linked tax family data to aggregate consumption costs based on some earlier Statistics Canada surveys; however, attempts to categorize these costs into specific spending areas did not yield reliable results. The FAO required Statistics Canada to compile results from a multi-year average of the survey as sample sizes were small, and regional variances were significant.
  - Electricity consumption data from smart meters is not available to the government, thus making it challenging to replicate FAO results using observed consumption. Other energy use is also not available at the household level.
- Case examples of representative families are a good alternative to demonstrate the scenarios where government mitigation efforts have a significant impact.

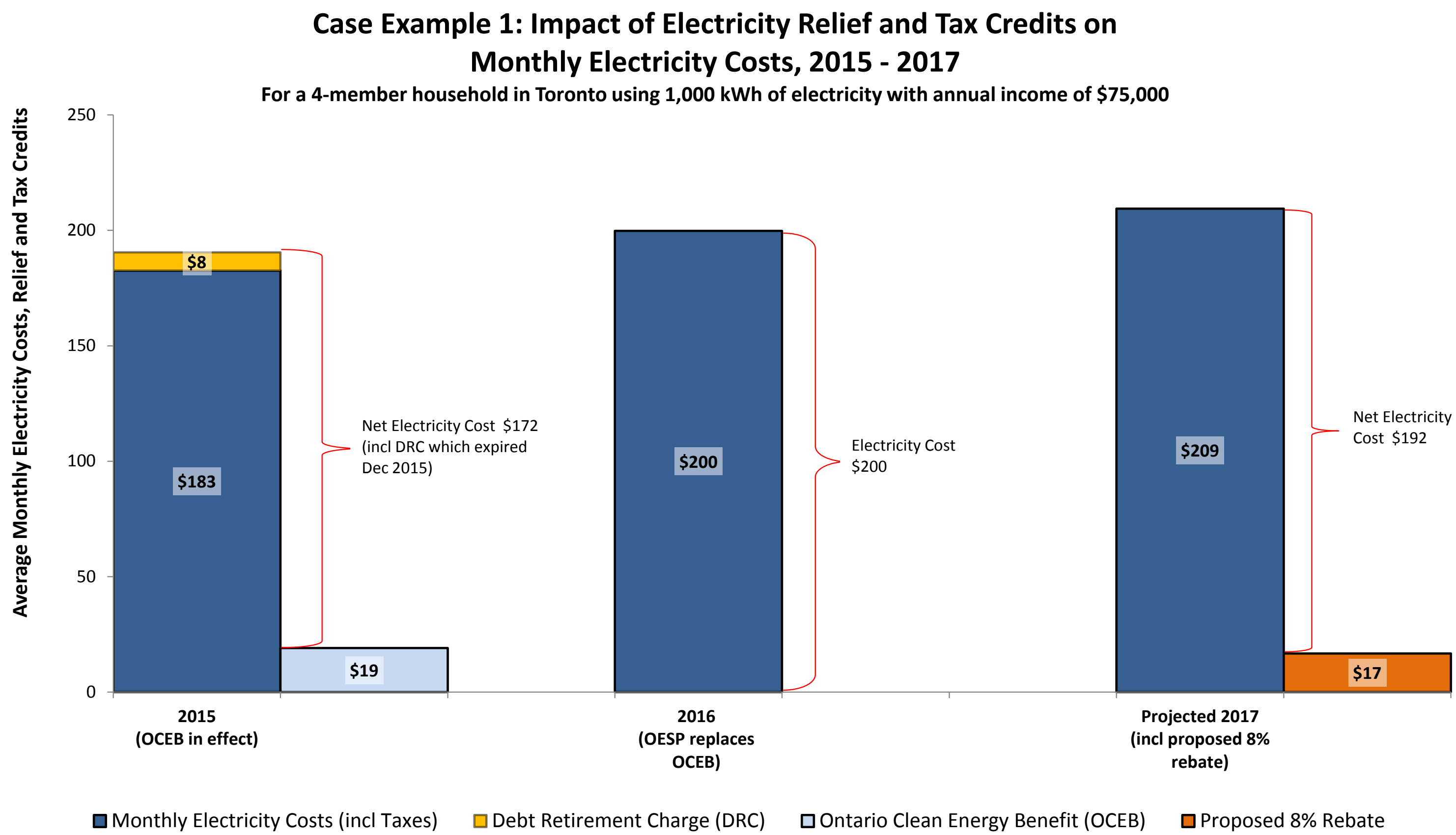
Approach Used to Build the Cases

- Representative case examples have been prepared to show monthly residential electricity costs faced by select Ontario families, less select government supports to help them with those costs.
- Some of the cost offsets mentioned below would appear on the bill (OESP, 8% rebate), while others, such as the OSTC, OEPTC, and federal GST credit do not directly affect the electricity bill, but provide notional cost offsets.
- Costs have been estimated assuming a time-of-usage pattern, total electricity usage for the particular case and using published electricity rates. For 2017, commodity costs and rates were projected by Ministry of Energy staff.
- Electricity relief programs and tax credits that have been considered include:
    - the Ontario Electricity Support Program (OESP) (2016);
    - a proposed 8% electricity bill rebate reflecting an amount equal to the provincial portion of the Harmonized Sales Tax (HST) (2017);
    - an enhanced Rural or Remote Rate Protection (2017);
    - a portion of the Ontario Sales Tax Credit (OSTC) and the federal Goods and Services Tax (GST) credit attributable to electricity usage; and
    - the energy (not just electricity) component of the Ontario Energy and Property Tax Credit (OEPTC).
- These case examples represent an after-tax scenario.
- The various conservation programs that are available to families in Ontario to lower their electricity costs have not been included in the analysis

Methodology, Caveats, and Assumptions

- Each case has been assigned an appropriate electricity service provider, e.g., if the case represents a low-density (R2) area, it is a Hydro One – R2 customer.
- The Ontario Sales Tax Credit and federal Goods and Services Tax credit amounts have been pro-rated based on the total Harmonized Sales Tax revenues attributable to electricity usage.
- The energy component of the Ontario Energy and Property Tax Credit has been allocated to each case; the estimate is based on occupancy cost information of similar families living in similar areas with similar incomes and household sizes.
- To focus the examples on on-bill support, incomes, property taxes and rents are held constant. Tax credits are paid out over a benefit year of July to June based on prior year's income.
- The Debt Retirement Charge is 0.7 cents per kWh of electricity consumed (prior to 2016, for residential).
- The proposed 8% electricity bill rebate, Ontario Electricity Support Program and Rural or Remote Rate Protection (RRRP) rates have been estimated by Ministry of Energy officials and have been applied pre-tax. The proposed $29 RRRP-enhancement has been reflected in the 2017 scenarios.
- Most of the cases would have received the maximum support from the Ontario Clean Energy Benefit in 2015 as their monthly usage was below 3,000 kWh, except for the dairy farm example.
- For 2016 and 2017, the families with an annual income of more than $52,000 do not get Ontario Electricity Support Program (OESP) payments. Some cases are assumed to be high-intensity users, making them entitled to more generous OESP payments.
- Sensitivity analysis on 'time-of-use' patterns and electricity usage shows minimal differences in monthly costs. And, net electricity cost is calculated as the monthly electricity bill less the benefits received from select electricity relief programs and tax credits.

Moderate and Higher-Income Families Get Some Support

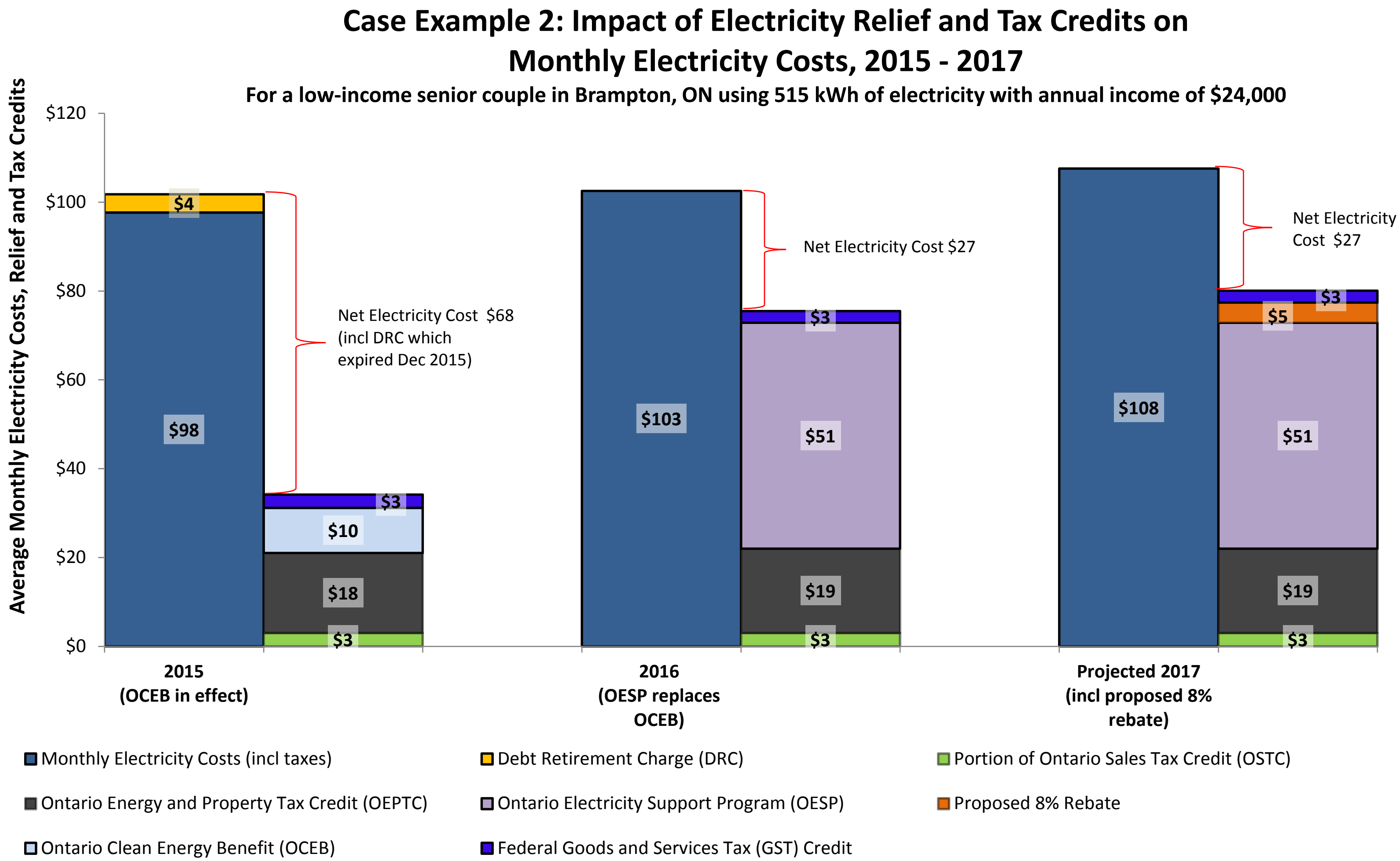


Source: Ministry of Finance / Ministry of Energy

NOTES:

1. This example assumes the family owns a house in Toronto and pays property taxes of about $3,500.
2. The family has an electricity meter with Toronto Hydro.
3. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 62%, mid-peak 23% and on- peak 15%) and total electricity usage of 1,000 kWh a month.
4. For 2016 and 2017, this family is not entitled to any Ontario Electricity Support Program payments. (The OESP cut-off for a 4-member household is $39,000).
5. The family, at its current income level, is not entitled to the Ontario Sales Tax Credit, Ontario Energy and Property Tax Credit and federal Goods and Services Tax credit.

Vulnerable Low-Income Seniors are Well Supported



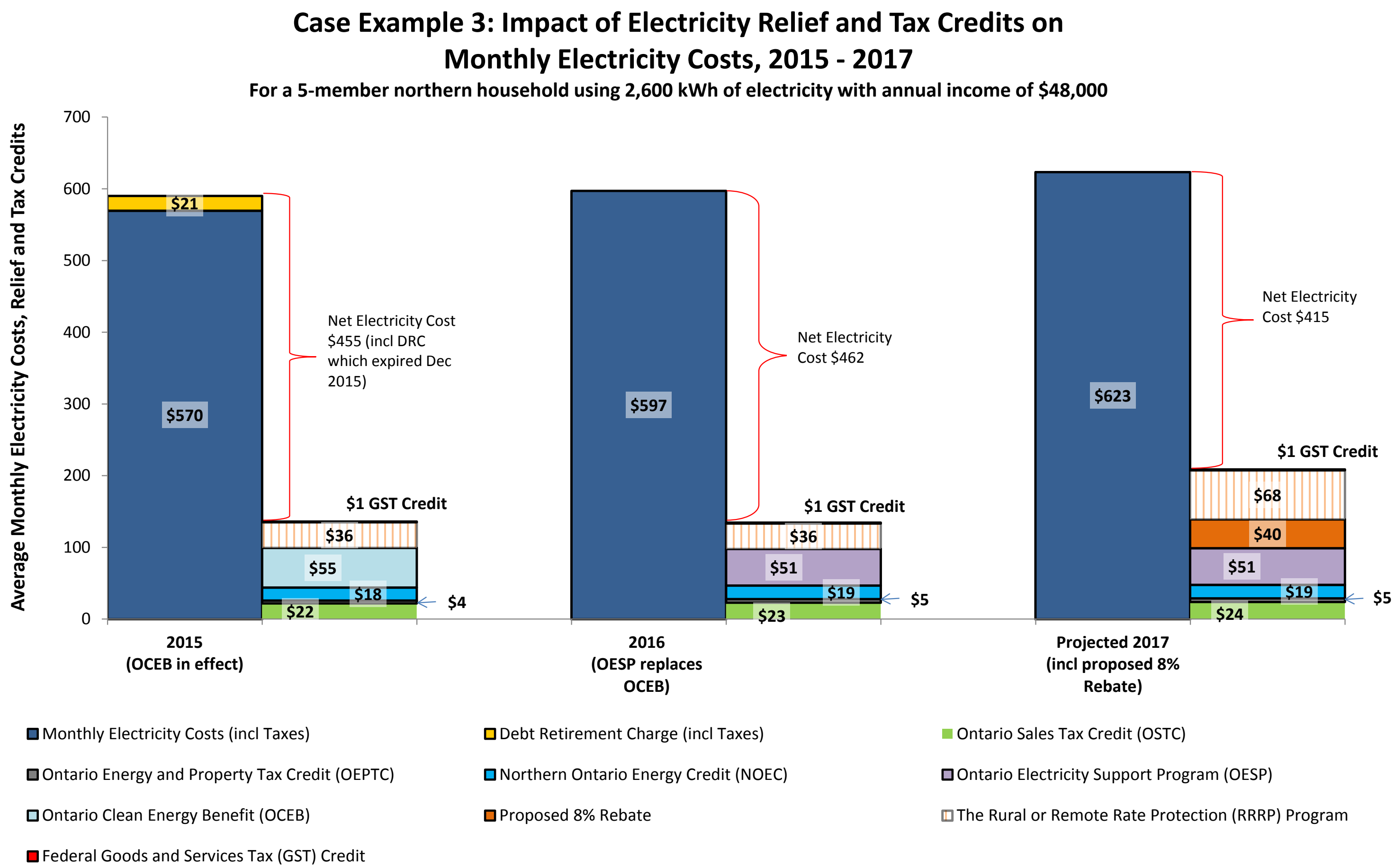
Source: Ministry of Finance / Ministry of Energy

NOTES:

1. This example assumes the family rents an apartment in Brampton, ON ($700 a month) with a separate meter with Hydro One Brampton Network Inc.
2. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 60%, mid-peak 20% and on-peak 20%) and total electricity usage of 515 kWh a month.

3 For 2016 and 2017, the family is assumed to have high-intensity electricity usage (e.g., by using certain medical equipment), making them eligible for more generous OESP payments.

Families in the North Face Higher Costs Reflecting Higher Usage

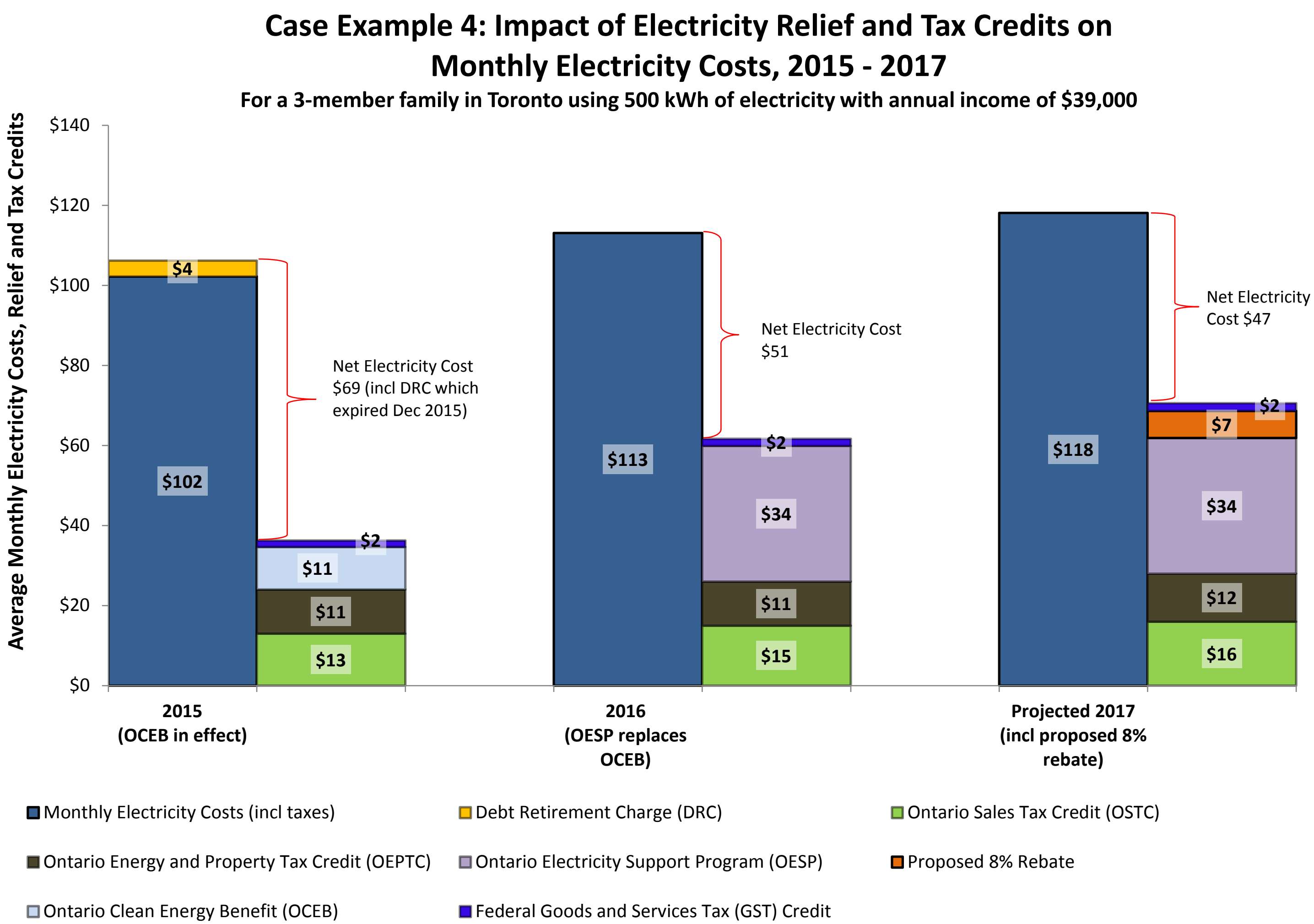


Source: Ministry of Finance / Ministry of Energy

NOTES:

1. This example assumes the family lives in northern Ontario, owns a house that is heated with electricity. In low-density, rural areas, reliance on electricity for home heating is more common. The family pays property taxes of $2,500.
2. The family is a client of the Hydro One Networks Inc. – Low Density (R2).
3. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 65%, mid-peak 18% and on-peak 17%) and total electricity usage of 2,600 kWh a month. The time-of-usage pattern used here is close to the average pattern, given that the heating load is relatively flat and information is not available on specific heating profile for this type of home.
4. For 2016 and 2017, the family is entitled to high-intensity OESP payments, due to having electric heating.

Low-Income Families Receive Increased Support for Electricity



Source: Ministry of Finance / Ministry of Energy

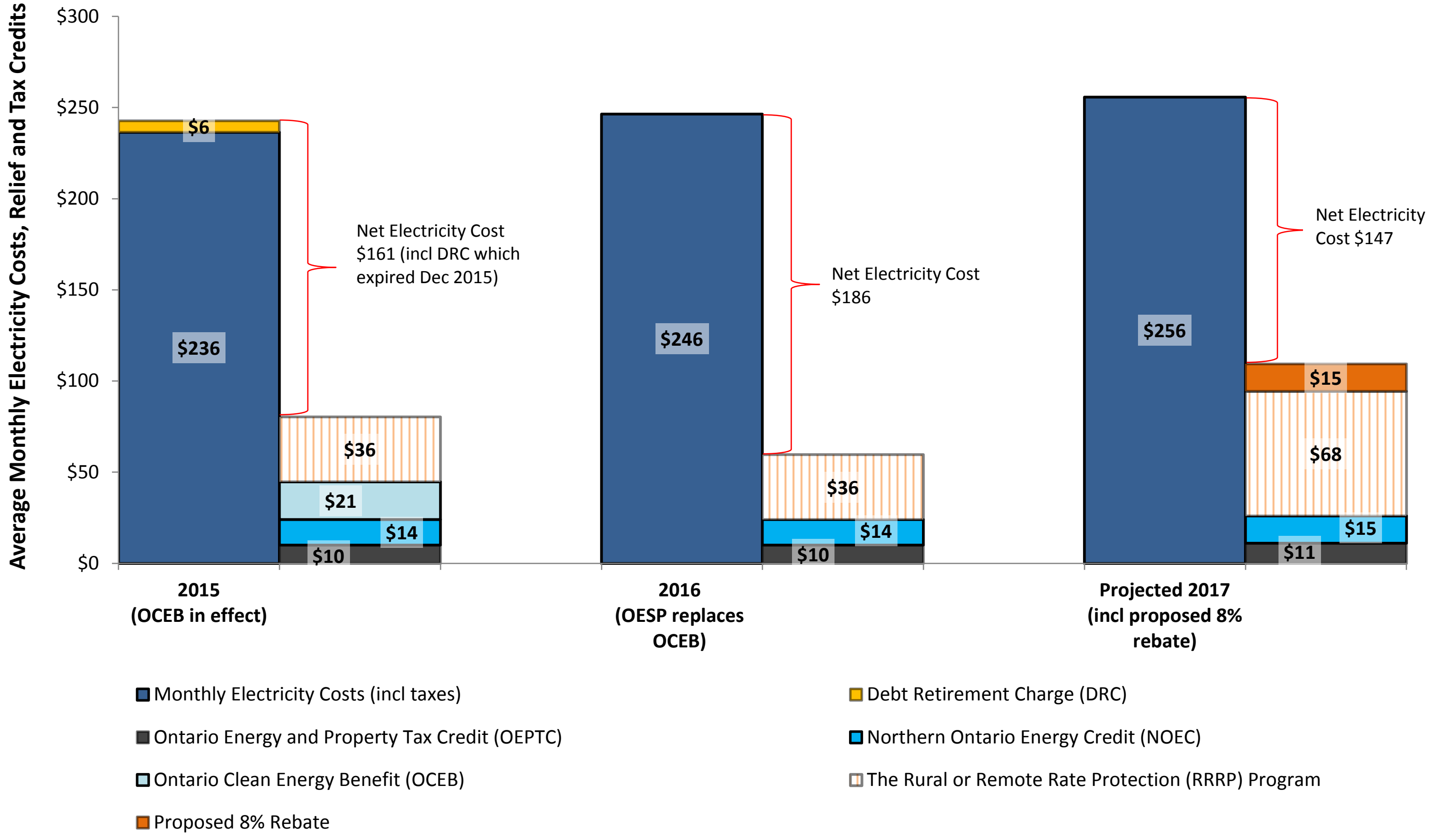
NOTES:

1. This example assumes the family lives in Toronto, owns a house and pays about $2,800 in property taxes.
2. This family is a client of the Toronto Hydro.
3. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 65%, mid-peak 18% and on-peak 17%) and total electricity usage of 500 kWh a month.

Rural and Remote Senior Families will Receive Enhanced Support

Case Example 5: Impact of Electricity Relief and Tax Credits on Monthly Electricity Costs, 2015 - 2017

For a senior couple in Cochrane, ON using 800 kWh of electricity with annual income of $55,000

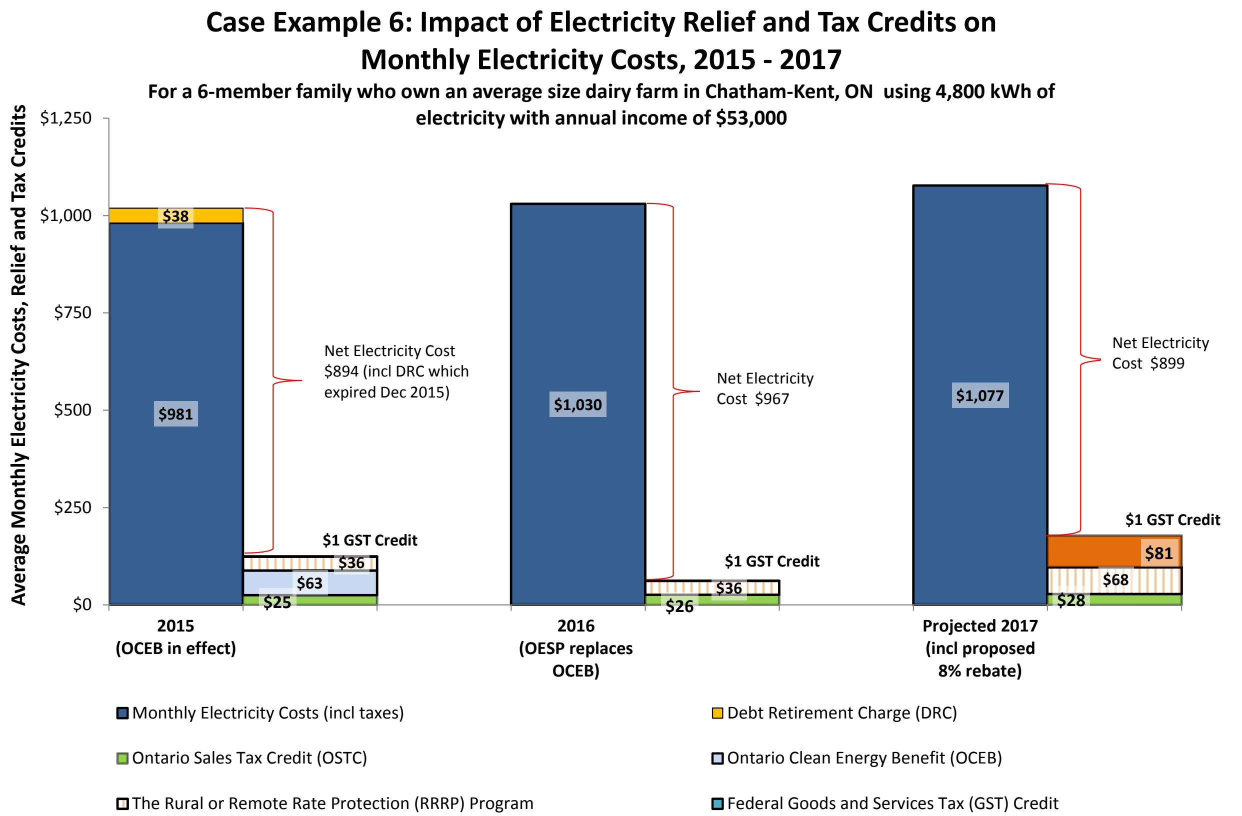


Source: Ministry of Finance / Ministry of Energy

NOTES:

1. This example assumes the family lives in a propane-heated home in the District of Cochrane, North-eastern Ontario; and pays about $2,250 in property taxes.
2. The family is a client of the Hydro One Networks Inc. – Low Density (R2), making them eligible for Rural or Remote Rate Protection (RRRP).
3. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 60%, mid-peak 20% and on-peak 20%) and total electricity usage of 800 kWh a month.
4. The family, at its current income level, is not entitled to the Ontario Sales Tax Credit and federal Goods and Services Tax credit.

Farm Families Receive Modest Support for Electricity Costs



Source: Ministry of Finance / Ministry of Energy

NOTES:

1. This example assumes the family owns an average-sized dairy farm, which is not incorporated and files farm income under personal income taxes, in Chatham-Kent, South-western Ontario; and pays about $2,000 in property taxes for their residential home.
2. The family is a client of the Hydro One Networks Inc. – Low Density (R2), making them eligible for Rural or Remote Rate Protection (RRRP).
3. Monthly electricity costs (including delivery and regulatory charges) were estimated by the Ministry of Energy, assuming a 'time-of-use' pattern (off-peak 65%, mid-peak 18% and on-peak 17%) and total electricity usage of 4,800 kWh a month. This is an estimated average monthly consumption for an average-sized dairy farm (source: an OMAFRA study).
4. As the family lives on the farm, they pay residential electricity rates for their farm operations, as well.
5. The family received the Ontario Clean Energy Benefit (OCEB) in 2015 only for up to 3,000 kWh per month of electricity usage. The OCEB provided 10% rebate only on up to $3,000 kWh of electricity usage.

Appendix: Background

On-Bill Relief:

- Both the Ontario Clean Energy Benefit (OCEB) and the Debt Retirement Charge (DRC) have ended December 2015.
  - The OCEB provided typical residential consumers[1] relief of about $16 a month and typical residential consumers paid DRC of about $5.25 a month (pre-tax).
- Effective January 2016, the government has introduced the Ontario Electricity Support Program (OESP).
  - The OESP provides ongoing, on-bill relief (up to $75 a month) for low-income electricity ratepayers who apply for the program.
- The government has recently announced its proposal to provide further support, including:
  - A proposed 8% electricity bill rebate reflecting the provincial portion of the Harmonized Sales Tax (HST), effective January 1, 2017, if passed by the legislature; and
  - A proposed enhancement of about $29 a month to the existing Rural or Remote Rate Protection (RRRP) program, also effective January 1, 2017, to be enacted by Regulation.

[1] Utilizing 750 kWh of electricity a month

Appendix: Background (Cont'd)

Ontario Tax Relief:

- The Ontario Sales Tax Credit (OSTC) provides relief to low- to moderate-income Ontarians to help with their sales taxes.
- The Ontario Energy and Property Tax Credit (OEPTC) provides relief to low- to moderate-income Ontarians, including seniors, to help them with their sales tax on energy and property taxes.
  - The energy component of the OEPTC is a flat, notional amount that, with certain exceptions, is not tied to actual home energy costs paid.
- The Northern Ontario Energy Credit (NOEC) provides relief to low- to moderate-income residents of northern Ontario to help them with their higher energy costs.
- The OSTC, OEPTC and NOEC are delivered to eligible recipients by the Canada Revenue Agency on behalf of the Province through the Ontario Trillium Benefit.

Federal Tax Relief:

- The federal Goods and Services Tax (GST) credit provides relief to low- to moderate-income Canadians for the federal portion of sales taxes they pay.