

## Home Energy Spending in Ontario: Regional and Income Distribution Perspectives

Home energy spending,<sup>1</sup> how much Ontarians pay to heat and cool their homes and power their appliances, is a frequent topic of debate in Ontario’s Legislative Assembly. While changing prices are an important driver of home energy spending, changes in energy efficiency and substitution between energy sources also matter. Some Ontarians, but certainly not all, have the opportunity to respond to rising prices for a particular energy source like gas or electricity by either using energy more efficiently or by switching energy sources. Looking at how much households actually spend on energy in the home, rather than at prices alone, provides a clearer picture of how energy affects the cost of living of Ontarians.

A previous FAO commentary<sup>2</sup> explored how average Ontario home energy spending has changed over time and how it compares to that in other provinces. This commentary answers two further questions: 1) on average how do home energy costs in Ontario compare across regions of the province? and 2) how much do Ontario households at different levels in the income distribution spend on home energy?

### Home energy spending by region<sup>3</sup>

Average household spending on home energy varies significantly by region (Figure 1 presents average spending from 2012 to 2014).<sup>4</sup> Households in Northern Ontario spend more on average than residents in other regions. Residents of Toronto and Hamilton-Niagara have the lowest spending. Numerous factors likely explain these differences including access to natural gas for heating, dwelling size and climate. Households in the north typically spend more on electricity and other fuel (heating oil), but less on natural gas.

Figure 1: Average Household Home Energy Spending in Ontario by Energy Source and Region, Average 2012-2014



Source: Adapted by FAO from Statistics Canada, Survey of Household Spending, September 19, 2016. This does not constitute an endorsement by Statistics Canada of this product.

<sup>1</sup> Home energy spending is spending on energy used in the home. This commentary does not address household energy spending outside of the home, such as gasoline or diesel fuel for vehicles or energy spending incurred at secondary residences such as cottages. Also excluded from this analysis, due to an absence of data, is home energy spending paid by property owners on behalf of tenants.

<sup>2</sup> Financial Accountability Office of Ontario (2016) "Home Energy Costs in Ontario," August 25, [http://www.fao-on.org/en/Blog/Publications/home\\_energy](http://www.fao-on.org/en/Blog/Publications/home_energy).

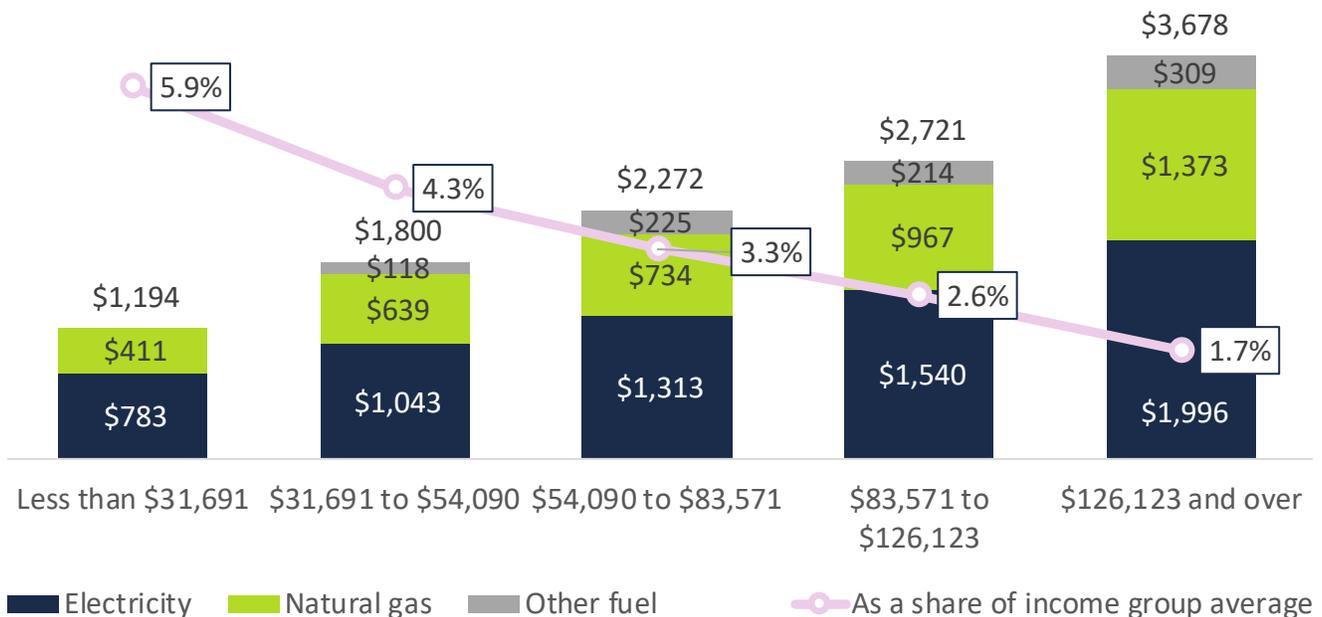
<sup>3</sup> Regions were developed by the FAO with input from Statistics Canada in order to achieve sufficient sample sizes while showing geographical variation. Eastern Ontario is the Economic Regions of Ottawa and Kingston-Pembroke; Hamilton-Niagara is the Economic Region of Hamilton-Niagara Peninsula; Northern Ontario is the Economic Regions Muskoka-Kawarthas, Northeast, and Northwest; Toronto is the Economic Region of Toronto; and Western Ontario is the Economic Regions of Kitchener-Waterloo-Barrie, London, Windsor-Sarnia, and Stratford Bruce Peninsula. It was not possible to obtain a sufficient sample size for the Northeast and Northwest Economic Regions without the addition of one other Economic Region to the grouping. Economic Regions are a unit of analysis developed by Statistics Canada (<http://www.statcan.gc.ca/pub/92-195-x/2011001/geo/er-re/er-re-eng.htm>).

<sup>4</sup> 2014 is the most recent available estimates of spending. Statistics Canada is scheduled to release 2015 data early in 2017. Figure 1 presents a multi-year average as sample sizes are small and the differences between regions can fluctuate significantly from year to year.

## Home energy spending by income level

Average household home energy spending also varies with household income (Figure 2).<sup>5</sup> Higher income households spend more on home energy. For example, the highest-income 20% of households, that is households which earned more than \$126,123 in 2014, spent \$3,678 on home energy, whereas households in the lowest-income 20% spent on average only \$1,194. These differences result in part from differences in size of dwelling and in the use of appliances such as air conditioning, lighting and heating.

Figure 2: Average Household Energy Spending in Ontario by Energy Source and Income Level, 2014



Source: Adapted by FAO from Statistics Canada, Survey of Household Spending, September 19, 2016. This does not constitute an endorsement by Statistics Canada of this product.

Note: For households with income lower than \$31,691, Statistics Canada reports average expenditure on other fuel is too unreliable to be published.

However, as a share of income, higher income households on average spend less than lower income households. In 2014, the lowest-income 20% spent on average 5.9% of pre-tax income on home energy, while the highest-income 20% spent only 1.7% of their incomes on home energy.

## Government programs to offset the burden of energy costs by region and income level

The burden, as measured by share of income, of home energy cost falls more heavily on lower income households in spite of their lower spending. Residents in more rural parts of Ontario also spend more on home energy than residents in more urbanized regions like Toronto. The Province has in place programs to lessen these regional and income related burdens associated with home energy spending, including

<sup>5</sup>In this case the FAO uses household income before tax. Statistics Canada defines household income before tax as

income from all sources including government transfers: scholarships, bursaries and fellowships, wages and salaries before deductions, farm self-employment net income, non-farm self-employment net income, Universal Child Care Benefit, Old Age Security pension, Canada Pension Plan and Quebec Pension Plan benefits, Employment Insurance benefits, social assistance, workers' compensation benefits, Federal GST/HST Credit, provincial tax credits, other government transfers, private retirement pensions, support payments received, other taxable income and income from a Registered Disability Savings Plan and investment income. (Source: correspondence between FAO and Statistics Canada)

- The Ontario Electricity Support Program reduces bills by up to \$600 annually for eligible low-income electricity consumers and up to \$900 for those with electric heating and certain medical equipment.<sup>6</sup> Rural and Remote Electricity Rate Protection reduces the bills of consumers in rural and remote areas of Ontario.<sup>7</sup> Both programs are funded through charges to all ratepayers, and so re-distribute funds among electricity consumers.<sup>8</sup>
- The Northern Ontario Energy Credit provides individuals living in northern Ontario with a credit of up to \$146 per year for the 2016 benefit year, and families up to \$224.<sup>9</sup>
- The Ontario Energy and Property Tax Credit provides up to \$1,008 per year for low- to moderate-income individuals and families, and up to \$1,148 for qualifying seniors.<sup>10</sup>
- As of January 1, 2017 the Province plans to reduce residential electricity bills by an amount equivalent to the 8% provincial portion of the Harmonized Sales Tax.<sup>11</sup> This measure would provide a benefit proportional to electricity spending. For instance, using 2014 spending estimates to illustrate, the average household in the top 20% of income earners would have saved \$160 annually, whereas the average household in the lowest 20% would have saved \$63.<sup>12</sup>
- The saveONenergy electricity conservation program (including Home Assistance Program for low income customers).

A variety of other provincial and federal programs also provide more general support not directly related to energy spending such as the federal Northern residents deductions.

## Key Messages

- Average household spending on home energy varies significantly by region. Households in Toronto and Hamilton-Niagara spend the least, while households in Northern Ontario on average spend the most.
- Household home energy spending in Ontario rises with income, but is a greater burden for lower income households. In 2014 households in the bottom 20% of the income distribution spent on average 5.9% of income on home energy, while those in the top 20% spent only 1.7% of their much larger incomes.
- A variety of provincial programs exists to assist households with paying for home energy.

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<sup>6</sup> <https://ontarioelectricitysupport.ca/FAQ>

<sup>7</sup> [http://www.veridian.on.ca/wp-content/uploads/Dec\\_Order\\_Reg\\_Charges\\_20151119.pdf](http://www.veridian.on.ca/wp-content/uploads/Dec_Order_Reg_Charges_20151119.pdf)

<sup>8</sup> Because the Ontario Electricity Support Program and Rural and Remote Electricity Rate Protection would result in reduced spending on electricity for some households, and increased spending for others, they would already be reflected in the Survey of Household Spending estimates.

<sup>9</sup> <http://www.energy.gov.on.ca/en/programs-to-reduce-electricity-costs-for-consumers/>

<sup>10</sup> <http://www.energy.gov.on.ca/en/programs-to-reduce-electricity-costs-for-consumers/>

<sup>11</sup> <https://news.ontario.ca/mei/en/2016/09/ontario-reducing-electricity-costs-for-families-and-businesses.html>

<sup>12</sup> The 8% HST rate applied to the average household electricity spending as presented in Figure 2 (p. 2).