

Natural Gas and Electricity Conservation Compared

Table 1: Relative Greenhouse Gas (GHG) Emissions from Natural Gas vs. Electricity in Ontario

Source	GHG Emissions (MT CO ₂ equivalent)
Natural Gas (2010) ⁱ	45.9
Electricity (2013) ⁱⁱ	10.9

Note: In 2015, a significantly higher proportion of GHG emissions will arise from natural gas as compared to electricity because: (i) natural gas consumption in Ontario has increased since 2010 and (ii) GHG emissions arising from electricity have fallen since 2013 due to the completion of the phasing out of coal power in 2014.

Table 2: Relative Budgets for Natural Gas and Electricity Conservation in Ontario

Energy Type	Approximate Annual Conservation Budgets (2015-2020)
Natural Gas ⁱⁱⁱ	\$135,000,000
Electricity ^{iv}	\$517,000,000

The conservation budget for electricity is 3.83 times larger than the conservation budget for natural gas.

Table 3: Relative Cost-Effectiveness of Natural Gas and Electricity Conservation in Ontario^v

Energy Type	Total Resource Cost Ratio
Electricity Conservation (2011-2013) ^{vi}	1.2
Natural Gas - Enbridge (2013) ^{vii}	2.35
Natural Gas - Union (2013) ^{viii}	3.83

ⁱ EB-2012-0394, Exhibit I, Schedule 1-ED-5

ⁱⁱ Environmental Commissioner of Ontario, Greenhouse Gas Progress Report 2015, p. 15 (www.eco.on.ca/uploads/Reports-GHG/2015/2015%20GHG.pdf)

ⁱⁱⁱ EB-2014-0134, Report of the Board Demand Side Management Framework for Natural Gas Distributors (2015-2020), p. 18

^{iv} Calculation: \$3.1 billion divided over 6 years; Ontario Power Authority, Target and Budget Allocation Methodology, Conservation First Framework LDC Tool Kit (<http://www.powerauthority.on.ca/sites/default/files/conservation/LDC-Target-and-Budget-Allocation-Methodology-Summary-v2%202014-12-16.pdf>) (\$2.6 for LDC-related conservation and demand response); Document Prepared by Terry Young, VP of IESO, at tab 6 of Environmental Defence's Document Book for Enbridge Cross-Examinations (\$500 million for transmission-connected conservation delivered by the IESO directly).

^v Figures include resource acquisition and low-income programs. The year 2013 was chosen as the most recent year for which actual results are available for electricity and natural gas conservation programs.

^{vi} Environmental Commissioner of Ontario, Annual Energy Conservation Report 2014, p. 105
(<http://www.eco.on.ca/uploads/Reports-Energy-Conservation/2014/2014%20Energy%20Conservation%20Report%20Final.pdf>)

^{vii} Enbridge DSM 2013 Annual Report (EB-2014-0273, Exhibit B, Tab 1) p. 120.

^{viii} Union Gas DSM 2013 Annual Report (EB-2014-0273, Exhibit B, Tab 1) p. 16.