



2017-18 Natural Gas Demand Side Management Custom Studies Executive Summary

Ontario Gas DSM Evaluation Contractor

Ontario Energy Board

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SAFER, SMARTER, GREENER

To verify the impacts of the Enbridge Gas Distribution, Inc. (Enbridge) and Union Gas Limited (Union) demand side management (DSM) programs, the Ontario Energy Board (OEB) undertakes various annual evaluation studies.¹ The 2017-2018 Natural Gas Demand Side Management Custom Savings Verification report and 2018 Natural Gas Demand Side Management Free Ridership Based Attribution Evaluation report are two such studies.² The results of the studies are summarized in this document.

In the 2017 and 2018 calendar years, Enbridge and Union delivered ratepayer funded DSM programs to residential, multifamily, low income, commercial, and industrial customers.³ Included within the programs offered throughout 2017 and 2018 were custom programs available to commercial and industrial customers that encouraged them to reduce their energy consumption by providing customer-specific energy efficiency and conservation solutions.

The custom commercial and industrial DSM programs offered by the utilities provide financial incentives, technical expertise, and guidance with respect to energy-related decision-making and business justification to help customers prioritize energy efficiency projects against their own internal competing factors. Multi-residential buildings — other than low-income buildings, which are dealt with separately — are eligible to participate in both Union and Enbridge's custom commercial programs.

The OEB evaluates the custom commercial and industrial program results annually as the programs have significant OEB-approved savings targets. Based on the results of the utilities' programs, the utilities may be eligible for performance incentives. The portion of shareholder incentives that come from the custom commercial and industrial programs is based on the amount of verified net natural gas savings achieved by each utility relative to the OEB-approved targets.

- **Verified savings** are utility draft program savings that are audited and confirmed by an independent third party. The process and results of the verification are described in the 2017-2018 Natural Gas Demand Side Management Custom Savings Verification report. The result of the analysis is a ratio that represents the percentage of utility-draft energy savings that are verified by the auditor.
- **Net savings** are those that are caused, or influenced, by the utility. The process and results of the net savings assessment are described in the 2018 Natural Gas Demand Side Management Free Ridership Based Attribution Evaluation report. The result of the analysis is a ratio that represents the percentage of verified savings that were caused by the utility.

The two ratios are applied to the utility draft savings to produce final verified net natural gas savings according to the equation in the following figure.

¹ Enbridge Gas Distribution Inc. and Union Gas Limited amalgamated effective January 1, 2019 to become Enbridge Gas Inc.; however, because the programs will continue to be implemented individually through the remainder of the current framework, the EC will also evaluate each program by utility.

² All DSM evaluation results can be found on the OEB's [website](#).

³ The OEB issued its Decision and Order on Enbridge and Union's multi-year DSM Plans on January 20, 2016 (EB_2015-0029/EB-2015-0049)

Equation to determine verified net savings



This summary reports the verification ratio and net savings ratio. The two ratios are applied to the utility draft savings to produce final verified net savings in the annual verification report for each program year. The custom program results are combined with the results from other utility programs in a “scorecard”. The utilities’ scorecard results determine overall performance and if the utility is eligible for a shareholder incentive.

The following table shows the verification ratio and the net savings ratio from these studies.

Results from the 2017-18 custom DSM evaluation studies⁴

Program	Verification Ratio	Net Savings Ratio
Enbridge Commercial and Industrial Custom	105%	38%
Union Commercial and Industrial Custom	91%	50%
Union Large Volume	90%	14%

1.1 Findings

Key findings from the 2017-2018 Natural Gas Demand Side Management Custom Savings Verification study include:

- Both utilities generally calculate sound draft savings estimates, resulting in high verification ratios, largely using engineering approaches. None of the three program verification ratios were statistically different from 100%. Much of the variation in verification ratios among projects is driven by factors that the utilities only partially control, such as changes in operating conditions, changes in operating hours and changes in production levels. In some cases, the utility can control these types of discrepancies with more thorough documentation, but some changes can be difficult to anticipate when calculating savings before the project is installed.
- Both utilities could provide better supporting documentation of assumptions and inputs in their savings estimates and each could benefit from investing in a modern program tracking database with document storage capabilities

Key findings from the 2018 Natural Gas Demand Side Management Free Ridership Based Attribution Evaluation study include:

- Overall the study found somewhat higher net savings ratios than the last study, which was conducted in 2015.
- Enbridge has been successful in influencing vendors to recommend more energy efficient options to their commercial and multi-residential customers.

⁴ This table presents the sample weighted overall results which differ slightly from the official domain results in the 2017 and 2018 Annual Verification Reports. The official domain results are the ones that are applied to determine shareholder incentive.

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- Union has been successful in influencing agricultural customers to adopt energy efficiency upgrades in greenhouses.
 - Enbridge has been successful in increasing net savings for industrial customers.
 - The net savings ratio for the Large Volume programs is low, though the program remains cost effective, meaning the benefits resulting from the program outweigh the cost of implementing it even with low net savings ratios.
 - The primary source of influence for both utilities is in convincing customers to install energy efficiency measures sooner than they would have without the program.



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