

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Schedule B).

IN THE MATTER OF an Application by Enbridge Gas Distribution Inc and Union Gas Limited seeking approval of the Ontario Energy Board for new and updated DSM measures and the Technical Reference Manual.

WRITTEN SUBMISSION OF ONTARIO SUSTAINABLE ENERGY ASSOCIATION

April 12, 2017

I. OVERVIEW

- 1 Enbridge Gas Distribution Inc. (Enbridge) and Union Gas Limited (Union), (collectively the Utilities) jointly brought an application seeking approval of the Ontario Energy Board (Board) for new and updated Demand Side Management (DSM) measures and the Technical Reference Manual (TRM).
- 2 The Ontario Sustainable Energy Association (OSEA) is supportive of demand site management (DSM) programming and the ultimate goals of reducing natural gas consumption and lowering energy bills for Ontarians.

3 OSEA submits that

- (a) Utilities must incorporate the implications of the Cap and Trade program in the TRM and the DSM measure assumptions, including but not limited to the Cap and Trade compliance costs savings and greenhouse gas (GHG) emission savings for each DSM measure
- (b) the TRM be used in the interim until the Utilities can adopt an approach that incorporates measured and reported data instead of relying on engineering calculated estimates.

II. INCORPORATE CAP AND TRADE IMPLICATIONS INTO DSM

- 4 Ontario implemented a Cap and Trade Program as of January 1, 2017. The goals and objectives of the Cap and Trade Program align with those of the DSM Program. Both involve increased use of a mix of energy efficient, renewable and sustainable technology to reduce natural gas consumption and GHG emissions.
- 5 As a result, the DSM Program and Cap and Trade Programs will inherently be intertwined. Though outside the scope of this hearing, the Utilities and the Board will need to decide how these two programs will formally interact and co-exist moving forward. For the purposes of this hearing, OSEA submits that the Utilities must start to consider how efficiencies or opportunities under the DSM Program will impact Cap and Trade and reduce costs associated with GHG emissions

- 6 The Utilities should incorporate the costs and compliance opportunities under the Cap and Trade Program into the TRM and the DSM Measure Assumptions. This will assist the Utilities, ratepayers and the public to assess the full spectrum of conservation and cost savings of DSM measures under the Cap and Trade Program and DSM.
- 7 The DSM measures included in the Updated Summary Table of Measure Assumptions¹ should report, at a minimum, the associated GHG emission savings and the Cap and Trade cost compliance savings for each DSM Measure.
- 8 Assessing the GHG emission savings for DSM measures will benefit the Utilities and the ratepayers. GHG emission savings that correspond with each DSM measure will result in fewer GHG emissions, requirements to purchase fewer carbon credits and more cost-effective Cap and Trade compliance costs. Utilities and ratepayers will be able to assess the effective reductions in the capital costs to install a DSM measure by identifying both the DSM savings and the Cap and Trade compliance costs savings.
- 9 This could lead to increased penetration of DSM measures, reductions in natural gas usage and GHG emissions and the overall success of both the DSM and Cap and Trade Programs.

¹ Joint Submission by Enbridge Gas Distribution Inc. and Union Gas Limited, Updated Summary Table of Measure Assumptions, Exhibit B, Tab 1, Schedule 2 [Evidence].

- 10 This could also lead to the identification of new technologies or new options for DSM that have to-date not been feasible because of capital or other costs. By accounting for the savings that will accrue under Cap and Trade, in addition to DSM savings, these projects may become financially viable.
- 11 Further, by assessing the implications of the Cap and Trade Program on the DSM Program now, the Board and Utilities will be better able to make future decisions about how the two programs should co-exist.

III. INPUTS USED IN MEASURING DSM RESULTS SHOULD REFLECT REAL MEASURED DATA

- 12 OSEA submits that the TRM should be considered a transitional document until the Utilities develop an approach measuring DSM results using real data. This could be accomplished either during or after the upcoming DSM mid-term review with direct links to calculating results for achieving GHG emission reductions for greater transparency and efficacy.
- 13 The model for utility driven DSM had been developed in the United States and was founded on the basis that investments in new supply could be avoided if conservation programs which were cheaper than the supply alternative could be delivered. Historically, utilities assessed the cost effectiveness of conservation by determining the costs of replacing standard efficiency equipment with higher efficiency equipment. This relied on theoretical mathematical calculations between standard efficiency and high efficiency equipment.

- 14 Ontario's natural gas utilities with the support of the Board, pioneered the concept of custom projects which enabled programs that were more customer centric. These programs look at a project and are not limited to one specific higher efficiency product at a time. However, the pre-and post evaluation process typical of the product by product installations has been applied to custom projects. This has been ineffective and created more complexities, greater debate and costlier third party audit processes in addition to third party evaluations.
- 15 The current policy framework in Ontario provides an excellent opportunity to enhance, rationalize and reduce the costs of conservation in Ontario and to better account for energy savings and GHG emission reductions. These plans and public disclosure provide a better basis for planning, implementing and evaluating DSM programs than the complex and costly approach in the TRM.
- 16 The relevant elements of the current policy framework are:
- (a) O.Reg. 397/11 under the *Green Energy Act*² which requires the public sector to develop energy management plans and report on energy savings and greenhouse gas emission reductions and,
 - (b) O.Reg. 20/17 under the *Green Energy Act*³ will require building owners of properties not owned by a public agency to report on energy consumption, water use, and performance metrics.

² O Reg 397/11: ENERGY CONSERVATION AND DEMAND MANAGEMENT PLANS under Green Energy Act, 2009, SO 2009, c 12, Sched. A.

³ O Reg 20/17: REPORTING OF ENERGY CONSUMPTION AND WATER USE.

- 17 The widespread use of big data applications and accessible communications infrastructure has dramatically altered the technical landscape for using real data to make informed decisions about managing energy (and water) use. For example, the regulation for private sector buildings requires the data to be added to Portfolio Manager, the ENERGY STAR electronic reporting system developed by the United States Environmental Protection Agency, as adapted for use in Canada and administered by Natural Resources Canada, and available on the Internet.
- 18 It is likely that once these applications are used to measure real reduction, the cost effectiveness of renewable energy and storage will be enhanced. This can be achieved with an increased adoption of distributed energy resources to reduce costly transmission and distribution systems as well as to support energy conservation and reduce greenhouse gas emissions.
- 19 Real data inputs in the TRM are more valuable than estimates and weighted averages.
- 20 For illustrative purposes, real data versus estimates can be helpful in assessing natural gas consumption at school. The Utilities have decided to assume that schools operate 54 hours per week.⁴ This estimated value was arrived at through the use of data from the U.S. and is an average value. The assumed operating hours for Ontario schools was previously 84 hours per week. This change in assumption alone results in an approximate 35% reduction in energy usage. OSEA submits that a real data input would more accurately reflect the

⁴ Evidence, supra note 1, Exhibit B, Tab 1, Schedule 6, p 139; Exhibit I.EGDI.OSEA.8

cold Ontario climate and the expanded uses of schools for various community, day care, athletic and educational programs.

- 21 The Utilities should be taking advantage of reported and measured data from schools that are becoming increasingly available through regulations, such as O.Reg. 397/11. With real data, the intensity of energy use (gas, electricity or water) for a given unit of floor space for the facility could be determined and tracked annually. The Utilities could be assessed on how much they help school boards reduce the energy intensity in their schools. DSM measures should not be restricted by size limits which are barriers for individual schools.
- 22 OSEA submits that the Utilities review and update the input data to more accurately reflect measured and reported energy use. This will fulfill the purpose of the TRM, which is to provide assumptions and calculation algorithms, and to support stakeholders' estimates of the savings achieved for the Ontario energy efficiency portfolios.⁵

IV. **CONCLUSIONS**

- 23 OSEA submits that
 - (a) Utilities must incorporate the implications of the Cap and Trade program in the TRM and the DSM measure assumptions, including but not limited to the Cap and Trade compliance costs savings and GHG emission savings for each DSM measure, and

⁵ Exhibit B, Tab 1, Schedule 3, p 2.

- (b) the TRM be used in the interim until the Utilities can adopt an approach that incorporates measured and reported data instead of relying on engineering calculated estimates.

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