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April 26, 2017

**VIA RESS, EMAIL and COURIER**

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
Suite 2700  
Toronto, ON M4P 1E4

Dear Ms. Walli,

**Re: Enbridge Gas Distribution Inc. (“Enbridge”) and  
Union Gas Limited (“Union”)  
Ontario Energy Board (the “Board”) File: EB-2016-0246  
New and Updated DSM Measures and the Technical Reference Manual  
Joint Reply Submission**

Enclosed please find a submission prepared jointly for the above noted proceeding by Enbridge Gas Distribution Inc. (“Enbridge”) and Union Gas Limited (“Union”).

The submission has been filed through the Board’s Regulatory Electronic Submission System (“RESS”) and will be available on the Utilities’ respective websites. The submission can be found under the “Other Regulatory Proceedings” tab at [www.enbridgegas.com/ratecase](http://www.enbridgegas.com/ratecase) (Enbridge) and, [www.uniongas.com/about-us/regulatory/rate-cases/eb-2016-0246](http://www.uniongas.com/about-us/regulatory/rate-cases/eb-2016-0246) (Union Gas).

As this Application has been filed jointly, please direct correspondence to the following representatives of the Utilities:

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Yours truly,

(Original Signed)

Stephanie Allman  
Regulatory Coordinator

Encl.

cc: Mr. Dennis O'Leary, Aird & Berlis  
Myriam Seers, Torys  
Adam Stiers, Union Gas  
EB-2016-0246 Intervenors

TEC Members:

Ted Kesik – Independent Member  
Bob Wirtshafter – Independent Member  
Jay Shepherd – School Energy Coalition  
Julie Girvan – Consumers Council of Canada  
Chris Neme – Green Energy Coalition  
Deborah Bullock – Enbridge Gas Distribution  
Tina Nicholson – Union Gas

## ONTARIO ENERGY BOARD

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule. B, as amended;

**AND IN THE MATTER OF** an application by Enbridge Gas Distribution Inc. for an order or orders approving the balances and the clearance of certain Demand Side Management Variance Accounts into rates, within the next available QRAM following the Board's approval.

### REPLY SUBMISSION - ENBRIDGE GAS DISTRIBUTION INC. AND UNION GAS LIMITED

#### Overview

This is the joint reply submission of Enbridge Gas Distribution Inc. ("Enbridge") and Union Gas Limited ("Union"), (collectively the "Utilities"), in respect of their joint application for approval of new and updated DSM measures and the Technical Reference Manual ("TRM") (together the "Application").

In accordance with the Ontario Energy Board's (the "Board") procedural order, this reply submission responds to common subject areas brought forward by those who filed written submissions on the Application: Ontario Energy Board Staff ("Board Staff"), Building Owners and Managers Association ("BOMA"), Industrial Gas Users Association ("IGUA"), Ontario Sustainable Energy Association ("OSEA"), and School Energy Coalition ("SEC").

The Utilities agree with Board Staff's characterization that the TRM is "the culmination of several years of consultative efforts between the retained consultant, Technical Evaluation Committee ("TEC") members, and the TRM sub-committee which included utility staff, industry experts and stakeholders."<sup>1</sup> The assumptions and underpinning references contained therein constitute the best available information and should be approved as filed.

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<sup>1</sup> Board Staff submission, p. 3

The Utilities also acknowledge acceptance of the present form of the TRM by IGUA, understanding the established evaluation process intends additional review of input assumptions.

Regarding the process for updating input assumptions, including assessing the various methodologies for estimating savings of the TRM, the Utilities also agree with Board Staff that “the OEB’s 2015 to 2020 DSM Evaluation process with input from the Evaluation Contractor (“EC”) and Evaluation Advisory Committee (“EAC”) is the appropriate forum for updating the input assumptions.”<sup>2</sup> This is consistent with the new Board led evaluation process outlined in Section 7.1 of the DSM Framework and further detailed in the August 21, 2015 Board letter regarding the 2015 to 2020 DSM Evaluation Process of Program Results (EB-2015-0245).

### **Updated Summary Table of Measure Assumptions**

This Application includes input assumptions for DSM activities as described in EB-2008-0346 which have been adopted as part of the current DSM Framework<sup>3</sup>, and is not limited to prescriptive measures. Further, the Summary Table of Measure Assumptions in the current Application (Schedule 2) provides information drawn from non-TRM substantiation documents that have received prior Board approval.

Since 2008, in accordance with Chapter 5 of the EB-2006-0021 Decision with Reasons, the Utilities have annually filed input assumptions for both prescriptive technologies and custom measures, including free ridership rates and custom measure lives. After review by the Board, these input assumptions received Board approval. These input assumptions have also been considered through multiple

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<sup>2</sup> Board Staff submission, p. 3

<sup>3</sup> Filing Guidelines to the 2015-2020 DSM Framework, EB-2014-0134, Section 8.2

audits, evaluation studies, variance and deferral account clearance applications and the Custom Project Savings Verification process for each utility.

The annual input assumptions filing reflects the relevant findings resulting from the above described evaluation processes and complies with the annual process for updating input assumptions established in the DSM Guidelines for the 2012 to 2014 Framework<sup>4</sup> as well as the Filing Guidelines to the 2015-2020 DSM Framework.<sup>5</sup>

The 2012 to 2014 DSM Guidelines, state that: “the application should be made annually, whether or not the natural gas utilities are requesting any changes to their set of input assumptions.”<sup>6</sup> Where the Utilities are seeking approval for changes to inputs, these have been outlined in Schedule 1, highlighted in Schedule 2, or further clarified through interrogatory responses. In keeping with this annual process, inputs that have not been updated or changed will remain valid, given that they received prior approval from the Board in an earlier filing.

As part of this Application, the Utilities are also seeking approval of the Enbridge Measure Life Guide and Union Custom Effective Useful Life (“EUL”) Table in accordance with the established application process outlined above. As a reminder, Utilities note that “where site specific information or a relevant prescriptive measure life is available to support an alternate measure life value for a specific custom project, the Utilities will use the alternate value for that custom project.”<sup>7</sup>

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<sup>4</sup> EB-2008-0346, Section 6.1.2

<sup>5</sup> EB-2014-0134, Section 8.2

<sup>6</sup> EB-2008-0346 (2011) “Demand Side Management Guidelines for Natural Gas”, p.19

<sup>7</sup> EB-2016-0246, Ex 1, Tab. 1, Sch. 2, p.15

### **The TRM Development Process**

Regarding the TRM development process, the following clarifications are provided:

- The TRM was developed through a consensus-based process as set out in the Joint Terms of Reference on Stakeholder Engagement for DSM Activities (EB-2011-0327). The development of a joint, province-wide TRM represents best practice in DSM administration.<sup>8</sup>
- To ensure timely completion of the TRM, the TEC directed the third party consultant Energy and Resource Solutions Inc. (“ERS”) to work with a subcommittee of the TEC comprised of one intervenor member, one independent member and the Utilities. The subcommittee included industry experts with extensive technical expertise in natural gas fired technologies related to space and water heating.
- The existing substantiation documents (“sub docs”) were largely based on previously approved sub docs developed in the Board commissioned “*Measure and Assumptions for Demand Side Management (DSM) Planning*” undertaken by Navigant Consulting in 2009. Subsequent updates to the sub docs were made with Evaluation and Audit Committee or TEC endorsement to reflect evaluation findings.
- Any assertion that ERS never drew on its own expertise is unfounded. As outlined in the Request for Proposal (“RFP”) for the TRM, which was developed by the TEC, ERS was mandated to review and update existing substantiation documents and provide new substantiation documents as appropriate. The collaborative nature of the subcommittee’s work required all parties to thoroughly consider ERS’ findings and recommended updates to the substantiation documents and supporting sources. Under the guidance of the TEC, ERS and the TRM subcommittee exercised due diligence by substantiating sources and references in accordance with ERS’ mandate.

As outlined in the RFP for the TRM developed by the TEC, ERS was mandated to:

- Review and validate or update existing measure assumptions
  - Review the current material to:
    - assess where assumptions may be harmonized between the two utilities, remove unnecessary duplication, and determine which assumptions are outdated.

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<sup>8</sup> EB-2011-0327 (2011) “Joint Terms of Reference on Stakeholder Engagement for DSM Activities by Enbridge Gas Distribution Inc. and Union Gas Limited”, p.6

- Undertake a scan to determine if more up to date information is readily available;
  - determine if the alternate values are applicable to the utilities' programs and franchise areas.
- Determine where research is required to update an assumption value and assess the degree of uncertainty involved, i.e., the importance of the measure to the utility's portfolio.
- Make recommendations regarding alternate values and/or requirements for further research.
- Develop new assumptions for measures that are both likely to produce a sufficiently significant portion of one or both of the utilities future gas savings and are measures that are conducive to prescriptive assumptions.
- In consultation with the TEC, design and develop an appropriate structure and format for the materials, suitable for publishing in hard copy and/or web based format.
- Produce the TRM:
  - Assemble the updated assumptions into a TRM,
  - Develop additional sections of the TRM, e.g., Glossary of Terms, Table of Measure Life Assumptions for custom projects, and
  - Assemble a library of all supporting research reports.
- While one TEC member expressed concerns about specific matters in this Application, there was no objection by any member to filing the TRM as part of this Application. It is worth clarifying that the December 16, 2015 Input Assumptions Application (EB-2015-0344) received full endorsement by all members of the TEC, including the Adaptive Thermostat measure, which was a new addition to the TRM. As outlined in the cover letter appended to this Application, input assumptions filed in the December 16, 2015 Input Assumptions Application (EB-2015-0344) are included in accordance with the Board's directive.

TEC members included:

- Ms. Julie Girvan, Consumers Council of Canada
  - Mr. Chris Neme, Green Energy Coalition
  - Mr. Jay Shepherd, School Energy Coalition
  - Dr. Bob Wirtschafter, Independent Member (evaluation)
  - Dr. Ted Kesik, Independent Member (technology)
  - Union Gas Ltd.
  - Enbridge Gas Distribution Inc.
- Consistent with the requirements set out by the TEC in the RFP, the TRM Glossary and Definitions are intended to provide context and a brief explanation of terms used throughout the TRM and were developed, in part, using definitions common to the energy industry and adopted from TRMs in other jurisdictions.

- The Utilities agree that definitions provided in the TRM are not expressly intended to apply to custom projects. It is clearly stated that the purpose of the TRM does not include “methodologies for determining the potential savings for custom measures.”<sup>9</sup>

In its Decision and Order, dated January 20, 2016 (EB-2015-0049) at page 74, the Board modified the treatment of input assumptions and net-to-gross adjustment factors effective 2015. The Board specifically stated that “any updates to existing input assumptions or new input assumptions identified during a year, should be applied prospectively when evaluating savings from prescriptive measures”. In this Application, the Utilities are seeking approval from the Board for the input assumptions and supporting substantiation documentation as filed.

The Utilities submit that the submission by SEC at page 3 of its submission that the Board should not approve the sub docs but rather only “accept” them as a useful guide is inconsistent with the Board’s above noted determination. While not explicitly stated, it appears that SEC may wish to reargue the question of whether input assumptions should be applied retroactively. The Utilities submit that with the Board’s Decision and Order it is clear that while input assumptions and supporting sub docs will be the subject of updating as better information becomes available, the purpose of the Board annually reviewing and approving input assumptions in proceedings like this Application is to allow those input assumptions to then be used to evaluate savings from prescriptive measures. Under such circumstances, they are therefore more than a mere “useful guideline”.

### **Cap and Trade and Demand Side Management**

The TRM and DSM measure assumptions follow input assumption and cost definitions outlined in the current established DSM Framework. While the current Framework does not give explicit consideration to Cap and Trade implications, a

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<sup>9</sup> Exhibit B, Tab 1, Sch. 3, p. 2

15% benefit is added to cost effectiveness calculations to account for externalities. The Utilities submit that it is not appropriate to address how carbon pricing is included in measure values currently, but expect this will be reviewed at a future date.

### **Performance-Based Conservation**

In respect of the merits of measured outcomes and benchmarking vs. prescriptive savings, the Utilities note that the TRM is based on engineering estimates, consistent with the Board's approach to previous substantiation documents and the considerations set out in the TEC-endorsed Terms of Reference establishing the scope of work for the TRM.

The Utilities note that the Board recently described the TRM as "a standard set of engineering assumptions related to the energy savings of different technologies and pieces of equipment, to be included in the master list of assumptions (the Technical Reference Manual ("TRM")), which is used by the gas utilities when designing and screening DSM programs."<sup>10</sup>

Going forward, the EC, with input from the EAC, will lead a process to update the TRM on an annual basis. This may include assessing different methodologies or criteria for TRM substantiation, updates based on relevant findings in the annual evaluation processes, additional research and/or use of metering and analysis. The TRM is intended to reflect the best information available while also providing a standard set of energy efficient measure assumptions.

Depending on program design, performance-based savings estimates, custom calculations or prescriptive savings each provide advantages and disadvantages to the ratepayer. The use of deemed savings is common across North American

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<sup>10</sup> EB-2014-0354, p. 24

jurisdictions, and the Utilities continue to support this approach as part of a balanced DSM portfolio. In its Decision on the Utilities' respective DSM Plans (EB-2015-0029/EB-2015-0049), the Board approved a DSM portfolio that included, among other program offerings, a deemed program offering and performance-based program offerings.

### **Conclusion**

The TRM represents a significant investment to update and validate input assumptions used by the Utilities. It was developed in accordance with direction provided in the DSM Framework under the guidance of the TEC. ERS was commissioned to research, update and validate new and existing prescriptive input assumptions under the guidance of the TEC, who defined and advised on the scope of work. The TRM is the result of a comprehensive and rigorous review to gather best available information. Values included in the TRM enable the effective estimation of energy savings achieved through the delivery and implementation of prescriptive DSM program offerings, subject to evaluation. Given the level of effort and TEC oversight of the TRM, the Board can have confidence in the validity and quality of the final product.

The Utilities submit Cap and Trade considerations are outside the DSM framework and not applicable to this current filing.

As acknowledged previously, while the Utilities offer performance based programming, the purview of this Application is limited to the input assumptions as filed.

Annual input assumptions filings, including Schedule 2, are consistent with previous filings. In addition to new and updated input assumptions, this Application contains Board approved values where no update is proposed, and provides all common input assumptions available to the Utilities as directed in the DSM Framework.

Consistent with Section 9.5 of the Board's EB-2015-0029/EB-2015-0049 Decision and Order, updated prescriptive Input Assumptions will be applied prospectively. The Utilities seek approval of the entire filing with the understanding that the values contained therein will be subject to review through the 2015 to 2020 DSM evaluation process and any further refinements made through the annual input assumption update process.

All of which is respectfully submitted.