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VIA RESS and EMAIL

November 15, 2021

Christine Long
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, Ontario
M4P 1E4

Dear Christine Long;

**Re: Enbridge Gas Inc. (Enbridge Gas)
Ontario Energy Board (OEB) File No.: EB-2021-0002
Multi-Year Demand Side Management Plan (2022 to 2027)
Interrogatory Responses**

In accordance with the OEB's Decision on the Issues List and Procedural Order No. 3 dated, September 9, 2021, enclosed please find the interrogatory responses of Enbridge Gas.

Also, enclosed please find a correction to the Exhibit E, Tab 4, Schedule 5. In the original submission, the exhibit reference was mislabeled.

Exhibit	Correction
E-4-5	The reference to Exhibit E, Tab 4, Schedule 1 has been corrected to Exhibit E, Tab 4, Schedule 5.

The above noted submission has been filed electronically through the OEB's RESS and will be made available on Enbridge Gas's website at:

<https://www.enbridgegas.com/Regulatory-Proceedings>

Should you have any questions on this matter please contact the undersigned at 416- 495-5642.

Sincerely,

Asha Patel
Technical Manager, Regulatory Applications

cc: D. O'Leary, Aird & Berlis – VIA email
EB-2021-0002 Intervenors – Via email

DSM PORTFOLIO

EVALUATION TOPICS

EM&V Protocols Proposal

1. Over the course of the 2015-2020 DSM Framework, more than \$10M of ratepayer funding has been spent on DSM evaluation activities, including:
 - Impact evaluation and verification studies and assessments (net-to-gross studies, custom project savings verifications, annual EC review of programs, etc.), coordinated by the OEB;
 - TRM maintenance and updates, coordinated by the OEB;
 - Process evaluation activities, coordinated by Enbridge Gas; and
 - Non-utility stakeholder and independent expert engagement costs (i.e., EAC).
2. With significant ratepayer spending expected to continue in support of evaluation activities, it is critical that the OEB, Enbridge Gas, and stakeholders are confident these activities are executed effectively and efficiently. In addition to the Evaluation Governance Terms of Reference discussed in Section 8.7 of the Proposed Framework, which ensures clear roles and accountabilities for those involved in DSM evaluation activities in Ontario, it is imperative that DSM evaluation protocols are developed and maintained. Enbridge Gas is requesting that the OEB direct OEB Staff to coordinate the development of Ontario DSM evaluation protocols, with engagement from Enbridge Gas and the EAC, with an initial version to be completed by December 31st, 2022.
3. The development and maintenance of Ontario DSM evaluation protocols would provide:
 - Clarity on how and which evaluation methodologies are used in Ontario. This clarity is important to:

- Enbridge Gas's program design and delivery efforts, to ensure they are executed in a manner which appropriately considers the evaluation methodologies;
 - Current and future Evaluation Contractors, to ensure they are effectively and appropriately executing evaluation activities;
 - The OEB and stakeholders, to ensure they are engaged with, understanding of, and can contribute to the evaluation methodologies; and,
 - The greater DSM evaluation community beyond Ontario. While the OEB, Enbridge Gas, and stakeholders rely on information from other regulators and DSM program administrators, the development of Ontario DSM evaluation protocols would provide those parties with the Ontario perspective.
- A venue for the continuous improvement of evaluation methodologies in Ontario. Without evaluation protocols, it is difficult for Enbridge Gas, the OEB, or stakeholders to assess and ultimately improve DSM evaluation practices. Currently in Ontario, it is Enbridge Gas's experience that evaluation methodologies are generally determined by the status-quo historical practice, which may be outdated or sub-optimal. In some cases, evaluation methodology discussions occur among those involved in the OEB's evaluation governance structure (i.e., OEB Staff, the EC, Enbridge Gas, and the EAC) and a judgement can be made to incrementally adjust an existing evaluation methodology. However, without Ontario DSM evaluation protocols, the opportunity to more comprehensively assess and improve evaluation methodologies, has not been made available.
4. Although Enbridge Gas has been engaged in DSM under OEB frameworks since 1995, DSM evaluation protocols have never been developed. This is inconsistent

with other jurisdictions and program administrators, where evaluation protocols of varying degrees and styles exist. Some examples include:

- The New York State Energy Research and Development Authority (“NYSERDA”)¹
- The Independent Electricity System Operator (“IESO”)²
- The State and Local Energy Efficiency Action Network (“SEE Action”)³
- Arkansas⁴
- California⁵

5. For clarity, Enbridge Gas is not requesting the adoption of evaluation protocols from other jurisdictions or program administrators. These evaluation protocols have been developed for purposes relevant to other jurisdictions, and in some cases for other fuel types that fundamentally differ from natural gas. Furthermore, Enbridge Gas is not suggesting that Ontario DSM evaluation protocols should necessarily follow the structure, content, and scope of evaluation protocols from other jurisdictions or program administrators. In some cases, these evaluation protocols may be unnecessarily lengthy, and not focused on the critical issues that have the largest impacts on evaluation methodology effectiveness.

6. Instead, to be effective and efficient with ratepayer spending when developing and maintaining the Ontario DSM evaluation protocols, Enbridge Gas recommends a recurring three stage approach:

¹ [https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/255ea3546df802b585257e38005460f9/\\$FILE/CE-05-EMV%20Guidance%20Final%20%2011-1-2016.pdf](https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/255ea3546df802b585257e38005460f9/$FILE/CE-05-EMV%20Guidance%20Final%20%2011-1-2016.pdf)

² <https://www.ieso.ca/-/media/Files/IESO/Document-Library/EMV/Evaluation-Measurement-and-Verification-Protocol-V4.ashx>

³ https://www7.eere.energy.gov/seeaction/sites/default/files/pdfs/emv_ee_program_impact_guide_1.pdf

⁴ <http://www.apscservices.info/EEInfo/TRM6-1.pdf>

⁵ https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/EE_and_Energy_Savings_Assist/CAEnergyEfficiencyEvaluationProtocols.doc

- i. *Identify and select* evaluation topics that would provide the most benefit from evaluation methodology improvements, either topics that are not currently addressed in the Ontario DSM evaluation protocols, or existing topics that require refinements. The selected topics should be agreed upon by OEB Staff, Enbridge Gas, and the EAC.
 - ii. *Define and action* the steps required to assess the selected evaluation topics. This would include developing a scope of work and project plan to address the topic and may include additional research and/or the involvement of third-party expert consultants. The deliverable would result in an update to the Ontario DSM evaluation protocols.
 - iii. *Publish* the updated version of Ontario DSM evaluation protocols
7. Examples of topics that can be addressed within evaluation protocols include, but are not limited to, cost effectiveness methodology and net-to-gross evaluation methodology.
8. Cost-effectiveness assessments are a critical input to DSM policy discussions and decisions. As part of the 2015-2020 DSM Framework, the OEB provided guidelines for cost-effectiveness assessments, and as part of this DSM Plan Application, Enbridge Gas has reiterated and updated those guidelines where necessary. While this topic is not necessarily onerous, including it in Ontario DSM evaluation protocols ensures that OEB Staff, Enbridge Gas, and stakeholders are provided sufficient opportunity to contribute and improve the guidelines. This provides all parties the assurance that the approach to cost-effectiveness continues to be appropriate, and that a process exists to continuously review and improve the methodology as needed.

Modernization of Net-to-Gross Evaluation Methodology

9. Net-to-gross adjustments (which include free-ridership and spillover adjustments) reflect the savings specifically influenced by energy conservation programs. In general terms, net-to-gross mitigation refers to the way in which a DSM program's design and delivery is executed to minimize participation from customers who would have completed the efficiency upgrade without the DSM program. Enbridge Gas is taking steps to mitigate NTG through the design and delivery of its programming.
10. Separate from net-to-gross mitigation efforts, net-to-gross evaluation methodology refers to the way in which net-to-gross adjustments are determined. The net-to-gross evaluation methodology is critical to understanding how successful a program's design and delivery methods are at influencing customers to participate in the program. Historically, net-to-gross adjustments have been determined for natural gas utilities in Ontario via self-reported studies, where a sample of past program participants are asked whether their participation was attributable to the program. However, energy conservation program experts across North America have identified fundamental concerns with the effectiveness of measuring net-to-gross adjustments using the self-reported methodology. Research Into Action Inc., with input from expert Dr. Jane Peters, set out these concerns in its August 2017 report to Enbridge Gas (Attachment 1). In Section 3 of the report, Research Into Action Inc. states that the self-reported methodology can lead to inaccurate net-to-gross adjustments, due to the following:
 - Difficulty for participants to accurately attribute energy conservation decisions between themselves and the energy conservation program.
 - Difficulty for participants to identify the hypothetical alternative (i.e. what energy conservation decisions would they have made absent the energy conservation program).
 - Tendency for participants to rationalize past decisions in ways that are consistent with their current attitude, as opposed to their prior attitude. For example, if a

participant has become more energy-conscious due to the energy conservation program's influence, when asked to self-report the programs' influence on past decisions, they are more likely to consider their current attitude towards energy conservation, as opposed to their attitude at the time of the decision.

- Tendency for participants to provide socially desirable responses. For example, if the participant believes it is socially desirable to be energy-conscious, they may respond to a self-reported survey in a way that indicates they would have done the "right" thing themselves – even if it was in fact the energy conservation program that influenced their behaviour.
- Difficulty for participants to recognize all elements of the energy conservation program's influence. For example, the participant may not be aware of the utility's program efforts towards contractors or equipment vendors, which may have influenced their behaviour.

11. In an effort to better understand other net-to-gross evaluation methodologies utilized in other jurisdictions, in 2020 Enbridge Gas retained SeeLine Group to conduct a jurisdictional scan (Attachment 2). As noted in the Executive Summary, the scan found that, while the self-report methodology continues to be common, there are at least five net-to-gross evaluation methodologies currently being used across North America:

- Self-report
- Expert/Delphi Panel
- Market effects (as proxy value or for consideration)
- Randomized Control Trials & Quasi-Experimental Studies
- Econometric modeling

12. One of the methodologies that appears to be gaining traction in other jurisdictions (Illinois, Massachusetts, and Michigan) is the Expert/Delphi Panel methodology. This

methodology consists of a more intelligent approach to determining net-to-gross adjustments. Rather than simply accepting the outcomes of a self-report study (which has its limitations noted above), the Expert/Delphi Panel consists of a group of DSM experts who can use the self-report study as an input into the determination of net-to-gross adjustments, along with other information and inputs (including market data and program design/delivery approaches).

13. In Michigan specifically, the Delphi Panel is provided with all appropriate inputs, and each expert provides their recommendation for a net-to-gross adjustment with supporting rationale, (Attachment 2, page 8). The evaluator then “reviews the input from all panel members, distills the information, and shares a recommended NTG value to the Panel with the basis for the recommendation. There is an opportunity for the panel to provide feedback if there is a disagreement”, (Attachment 2, page 10).
14. While Enbridge Gas is not necessarily requesting an Expert/Delphi Panel be implemented, Enbridge Gas is concerned that without Ontario DSM evaluation protocols, the net-to-gross evaluation methodology in Ontario will remain unchanged and potentially sub-optimal, when other well-considered methodologies may be available. To ensure the OEB is reasonably reassessing the net-to-gross evaluation methodology used in Ontario, it is imperative that a process to develop and maintain Ontario DSM evaluation protocols is initiated.

Evaluation Contractor Recommendations Status

15. In its DSM Letter, the OEB stated the following:

Additionally, as part of its application for a new multi-year DSM plan, Enbridge Gas is expected to provide information on how it has refined its processes and improved its tracking databases, as recommended by the OEB’s Evaluation Contractor, to support the OEB’s evaluation process, reduce costs and increase efficiencies.⁶

⁶ EB-2019-0003, OEB Letter Post-2020 Natural Gas Demand Side Management Framework (December 1, 2020), p. 5.

16. The following sets out Enbridge Gas's response to this. Within EGD and Union Gas' 2015-2020 DSM Plans, the utilities requested funding for improved DSM tracking and reporting systems. The OEB approved the request in its January 20th, 2016 Decision on the utilities' plans. For the Union rate zones, the system was rolled out during the 2018 program year, and for the EGD rate zone during the 2019 program year. The systems have resulted in improved in-year tracking processes, and a more streamlined delivery of data to the OEB's Evaluation Contractor ("EC").
17. As part of the annual DSM audit process, the EC provides a list of findings and recommendations to support continuous improvement of Enbridge Gas's DSM programs and the audit process itself. As part of the most recently completed audit, the EC provided two findings and recommendations related to tracking databases within its 2019 Natural Gas Demand Side Management Annual Verification Report.⁷ Enbridge Gas's responses to all the findings and recommendations are also included the EC's report.
18. The first finding and recommendation (O1) referred to a request by the EC that Enbridge Gas "include a unique site-level or customer-level identifier for every measure installed in the program to allow the evaluator to identify all projects installed at a single customer, regardless of program or program year."⁸ Within Enbridge Gas's response, the utility confirmed that the Union rate zones tracking information provided to the EC currently provides this information. Enbridge Gas also confirmed that, starting with the 2020 verification cycle, Enbridge Gas will include the information for the EGD rate zone.

⁷ Ontario Gas DSM Evaluation Contractor, 2019 Natural Gas Demand-Side Management Annual Verification Report, DNV.GL (December 3, 2020), pp. 33-34. <https://www.oeb.ca/sites/default/files/2019-Natural-Gas-Demand-Side-Management-Annual-Verification-Report.pdf>

⁸ Ibid.

19. The second finding and recommendation (O2) referred to a request by the EC that electronic components be developed for the Technical Resource Manual (“TRM”), to reduce burden on utility staff, reduce evaluation costs, and limit errors on the tracking data. Within Enbridge Gas’s response, Enbridge Gas confirmed that the OEB has primary ownership of the TRM including the development of an electronic component. OEB Staff also provided a response, agreeing that an electronic component could be beneficial and that it would consider options on how to implement the finding and recommendation during the 2021 year.
20. Furthermore, starting with the 2019 program year, Enbridge Gas aligned where possible the format and structure of the tracking database files provided to the EC, between the Union rate zones and the EGD rate zone. This included providing data to the EC in a single flat file, which the EC had previously indicated would be beneficial.

Process Evaluation Plan

21. In alignment with the OEB DSM Letter, indicating the expectation that “all future process evaluations undertaken by Enbridge Gas will be included in the OEB’s EM&V Plan.”⁹ Enbridge Gas submits that following the OEB’s Decision on the DSM Plan, the Company will develop a formalized Process Evaluation Plan (“PE Plan”) and submit to the EC and EAC for inclusion in the EC’s EM&V Plan.
22. This PE Plan will include a list of the offerings proposed for review including the recommended scope and expected deliverables for each. While Enbridge Gas will ultimately be responsible for overseeing all aspects of the Process Evaluation studies, it commits to take into consideration feedback received from the EAC and

⁹ EB-2019-0003, OEB Letter Post-2020 Natural Gas Demand Side Management Framework (December 1, 2020), p. 5.

EC concerning final scopes of work and deliverables prior to securing a third party delivery agent and executing each evaluation.