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Enbridge Gas Inc.
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VIA EMAIL and RESS

September 24, 2024

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario, M4P 1E4

Dear Nancy Marconi:

Re: Enbridge Gas Inc. ("Enbridge Gas")
Ontario Energy Board ("OEB") File No. EB-2022-0335
Integrated Resource Planning Pilot Project
Argument-in-Chief

Pursuant to the OEB's Procedural Order No. 5, enclosed please find the Argument-in-Chief of Enbridge Gas for the above-noted proceeding.

If you have any questions, please contact the undersigned.

Sincerely,

Haris Ginis
Technical Manager, Regulatory Applications

cc: David Stevens (Aird & Berlis LLP, Enbridge Gas Counsel)
Lawren Murray (OEB Counsel)
Stephanie Cheng (OEB Staff)
Intervenors (EB-2022-0335)

EB-2022-0335

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15, Schedule B; and in particular section 36 thereof;

AND IN THE MATTER OF an Application for approval of costs and the accounting treatment of costs, associated with the Integrated Resource Planning (IRP) Pilot Project

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ENBRIDGE GAS INC.

ARGUMENT IN CHIEF

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A. OVERVIEW

1. Enbridge Gas Inc. (Enbridge Gas or the Company) seeks approval of its integrated resource planning (IRP) Pilot Project to test integrated resource planning alternatives (IRPAs) in the Southern Lake Huron area.

2. The Southern Lake Huron (SLH) IRP Pilot Project will allow Enbridge Gas to design, implement and monitor a variety of IRPAs including enhanced targeted energy efficiency (enhanced demand side management measures, limited electrification measures, and limited advanced technology measures) and demand response. The presence of a large number of advanced metering units via encoder receiver transmitter (ERT) technology in the pilot project area allows for the collection of hourly data and makes this an excellent candidate for testing IRPAs.

3. The testing, monitoring and reporting proposed for the SLH IRP Pilot Project will help ensure that the experience and learnings from the implemented IRPAs can be used to evaluate, design and implement future IRP plans.

4. As explained in evidence and summarized below, Enbridge Gas has combined most of its planned IRPAs into a single pilot project, choosing not to proceed with the previously proposed Parry Sound Pilot Project (in an area with fewer ERTs). Effectively, Enbridge Gas is undertaking multiple IRP pilots at the same time, by testing a variety of IRPAs in a single project area. In substance this satisfies the OEB's direction for the Company to undertake two IRP pilot projects.

5. Enbridge Gas has worked collaboratively with the IRP Technical Working Group (IRP TWG) in developing and amending the SLH IRP Pilot Project. The IRP TWG members generally support this Application, with some suggestions as to what could be changed, particularly in relation to the inclusion of advanced technologies that use natural gas.

6. The cost of the SLH IRP Pilot Project is around $14 million and will be recovered through the appropriate IRP cost deferral accounts. With OEB approval of the SLH IRP Pilot Project before the end of 2024, Enbridge Gas expects to be able to proceed with detailed planning and implementation in 2025. Results should start to be available by 2026. Enbridge Gas will provide reporting each year in its IRP Annual Report, as well as in a more detailed manner at the end of the term of the SLH IRP Pilot Project.

B. BACKGROUND

7. On July 22, 2021, the Ontario Energy Board (OEB) issued the first iteration of the IRP Framework for Enbridge Gas (EB-2020-0091, Appendix A).

8. Section 12 of the IRP Framework states,

> *Enbridge Gas is expected to develop and implement two IRP pilot projects. The pilots are expected to be an effective approach to understand and evaluate how IRP can be implemented to avoid, delay, or reduce facility projects.*

9. In accordance with the IRP Framework, Enbridge Gas filed an application (EB-2022-0335) with the OEB on July 19, 2023 for an Order or Orders approving the cost consequences of the IRP Plans for two IRP Pilot Projects (the Parry Sound Pilot Project and the Southern Lake Huron or SLH Pilot Project), including approval to record the associated costs in the IRP costs deferral accounts.

10. The primary objectives of the IRP Pilot Projects were, and continue to be, to develop an understanding of how enhanced targeted energy efficiency (ETEE) and demand response (DR) programs impact peak hour flow/demand and to develop an understanding of how to design, deploy, and evaluate ETEE and DR programs.

11. Enbridge Gas has worked closely with the IRP TWG in the development and design of the SLH IRP Pilot Project. The materials where this was discussed and where input and comments were provided to Enbridge Gas are set out in response to Exhibit I.ED.2.[1] There is general support from the IRP TWG for the SLH IRP Pilot Project.[2] It should be noted that members of the IRP TWG disagreed with the amount of promotion of natural gas options in the pilot, taking the position that not enough electrification is included.[3]

12. Since the time that this Application was filed, there have been a large number of developments that have impacted the scope of the Application and the approval requests from Enbridge Gas. Below is a summary, as explained at Exhibit A, Tab 3, Schedule 1, pages 1 to 5.

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[1] See also Exhibit I.PP-32.
[2] See April 30, 2024 letter from Enbridge Gas to OEB.
[3] See TC Tr. 130-133.

i. On November 3, 2023 in accordance with Procedural Order No. 2, Enbridge Gas filed written interrogatory responses based on the originally filed Application and prefiled evidence.

ii. On November 10, 2023, Enbridge Gas filed a letter notifying the OEB that, on November 8, 2023, NRCan informed the Company that it will be discontinuing new entrants into the Canada Greener Homes Grant in Q1 2024. As a result of the change, Enbridge Gas stated that it expects it will be required to file updates to the Company's evidence including its interrogatory responses.

iii. On November 17, 2023, the OEB issued Procedural Order No. 3 and placed the proceeding in abeyance pending the filing of Enbridge Gas's updated evidence.

iv. On December 21, 2023, Enbridge Gas filed updates to the Company's evidence including its interrogatory responses. The updates primarily reflected Enbridge Gas's proposal to replace the incentives previously funded by NRCan with funding from the Pilot Projects budget to maintain the level of incentives the Company believes are required to drive the high levels of ETEE programming uptake to achieve the necessary peak hour demand reductions.

v. On January 12, 2024, Enbridge Gas filed a letter requesting that the OEB continue to hold the proceeding in abeyance to allow time for the Company to assess the impacts (if any) to the Application and evidence arising from the OEB's Decision and Order on Enbridge Gas's Application for 2024 Rates – Phase 1 (EB-2022-0200).

vi. On February 29, March 26, April 30 and June 7, 2024, Enbridge Gas filed letters regarding the status of the Application and the planned changes it will be proposing for the Application. Within these updates, Enbridge Gas indicated that it will be withdrawing the Parry Sound Pilot Project from the Application and revising the SLH Pilot Project. The primary reason for the changes is that the underlying facilities requirements that the Pilot Projects would be addressing have now been removed from the Company's Asset Management Plan (AMP), and therefore it makes sense to focus the Pilot Projects on the SLH Pilot Project.

13. Enbridge Gas filed updates to the Application and evidence (including interrogatory responses) on June 28, 2024, focusing the Application on the SLH Pilot Project. As explained in the Company's updated evidence,

> *It was determined that learnings for demand-side alternatives can be better achieved at a more optimal cost by focusing on the Southern Lake Huron Pilot Project given that existing Encoder Receiver Transmitter ("ERT") technology is already in place within the Southern Lake Huron Pilot Project area. In contrast, ERTs are only in place in approximately 10% of the Parry Sound Pilot Project area and additional installations would have been required across the remaining area. To preserve the demand-side learnings that were unique to the Parry Sound Pilot Project (i.e., the inclusion of ETEE*

with advanced technologies and residential electrification) these alternatives would be moved to the Southern Lake Huron Pilot Project.[4]

14. On August 27, 2024, a technical conference was held where parties asked follow-up questions about the updated Application and evidence. Enbridge Gas filed undertakings from the technical conference on September 10, 2024.

15. On September 5, 2024, the OEB issued Procedural Order No. 5, directing that the Application be determined by a written hearing.

C. THE SOUTHERN LAKE HURON (SLH) IRP PILOT PROJECT

16. The SLH IRP Pilot Project proposes to implement a suite of ETEE programming for residential, commercial and industrial customers in the City of Sarnia and the Village of Point Edward[5], including an enhanced version of existing DSM offerings, a limited offering for electrification measures (featuring limited units of electric air source heat pumps and electric ground source heat pumps for residential only), a limited offering for advanced technologies measures (featuring limited units of simultaneous hybrid heating, natural gas heat pumps and thermal energy storage), as well as a residential DR program.

17. The primary objectives of the SLH IRP Pilot Project are to develop an understanding of how ETEE and residential DR programs impact peak hour flow/demand and to develop an understanding of how to design, deploy, and evaluate ETEE and residential DR programs.[6]

18. The SLH IRP Pilot Project was initially planned in part to delay or avoid future facilities requirements in the area.[7] However, in 2024 the Company undertook work and analysis to refresh and update its 10-year capital forecast, which included: (i) the annual system reinforcement plan (SRP) update, (ii) the annual energy transition adjustments update, which are applied to the Company's 10-year demand forecast to reflect best available information in Ontario, and (iii) reductions in approved capital in the 2024 Rebasing Phase 1 (EB-2022-0200) Decision.

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[4] Exhibit A, Tab 3, Schedule 1, paragraph 18.
[5] A map of the pilot area is filed as Exhibit A, Tab 2, Schedule 1, Attachment 1.
[6] Described in more detail at Exhibit B, Tab 1, Schedule 1, pages 3-4. The manner in which Enbridge Gas seeks to address these objectives is discussed further at Exhibit JT1.6.
[7] Exhibit A, Tab 3, Schedule 1, pages 8-9.

19. In the course of the annual SRP update in Q1 2024, the baseline facility alternatives associated with the SLH IRP Pilot Project were pushed out of the Company's 10-year capital forecast. As a result of the changes to the baseline facility alternatives, Enbridge Gas, in consultation with the IRP TWG in April 2024, determined that it is appropriate, based on the best available information at the time, to move forward with the SLH IRP Pilot Project focused solely on demand-side alternatives. To preserve the demand-side learnings that were no longer being proposed for the Parry Sound Pilot Project (i.e., the inclusion of ETEE with advanced technologies and residential electrification), these alternatives were moved to the SLH Pilot Project.[8]

20. Enbridge Gas appropriately determined that even though there is no longer a facility need to be addressed in the SLH area, it is reasonable and appropriate to proceed with this Pilot Project. Evaluating and choosing a new pilot project and taking steps to design and stakeholder a new project and then file a new application would delay the implementation of the first IRP Pilot Project in a way that neither Enbridge Gas or the IRP TWG support.[9]

21. Although there is no baseline facility need associated with the SLH IRP Pilot Project, Enbridge Gas expects that the learnings obtained from the Pilot Project will be transferable to the assessment and implementation of future IRP Plans for both growth and non-growth projects. Pilot Project learnings that are expected to be transferrable include insights on peak hour flows, peak hour flow reductions resulting from DR and ETEE measures and different customer types, as well as the impact varying program designs have on the adoption rates of IRPAs.[10] The IRP TWG agrees.[11]

22. As a result of the changes to the identified system constraints for the Sarnia area, the updated SLH IRP Pilot Project no longer differentiates between an "area of influence" and a "greater Southern Lake Huron area". Instead, the SLH IRP Pilot Project will now target all of the City of Sarnia and Village of Point Edward with all demand-side alternatives. Increasing the size of the SLH IRP Pilot Project area for the targeting of all enhanced DSM offerings allows Enbridge Gas to leverage existing ERT technology that is already in place across the larger

[8] Exhibit A, Tab 3, Schedule 1, pages 9-10. The benefits of expanding the scope of the Pilot Project are set out at Exhibit JT1.12.
[9] Exhibit I.STAFF-4. See also TC Tr. 134.
[10] Exhibit I.OGVG-1. See also TC Tr. 25-26.
[11] TC Tr. 133.

area for residential and small commercial customers, including the associated available baseline data, and avoids the need for additional ERT installation. Approximately 93% of customers within the Southern Lake Huron Pilot Project area have ERTs installed.[12] Implementing enhanced DSM across the larger SLH IRP Pilot Project area is expected to support increased participation, reduce the timeframe required to obtain learnings related to the IRP Pilot Project's objectives, and enhance the representative nature of the IRP Pilot Project when extrapolating learnings to other geographies.[13]

23. In the subsections below, details are provided about the scope and components of the SLH IRP Pilot Project as well as the associated timing, costs/cost recovery and evaluation/reporting.

(i) Components of SLH IRP Pilot Project

24. The SLH IRP Pilot Project comprises several pilot project initiatives being conducted at the same time. The goal of the wide-ranging Pilot Project is to gain experience with a variety of IRPAs, to inform the evaluation, development, implementation and costing of future IRP Plans. This goal can be achieved without a current facilities requirement in the Pilot Project area.

25. The SLH IRP Pilot Project includes the following components:

i. Enhanced DSM ETEE offerings targeting the full Southern Lake Huron Pilot Project area;

ii. Demand Response (DR) targeting the full Southern Lake Huron Pilot Project area for residential only;

iii. ETEE offering for electrification measures (featuring limited units of electric air source heat pumps and electric ground source heat pumps for residential only); and

iv. ETEE offering for Advanced Technologies (featuring limited units of simultaneous hybrid heating, natural gas heat pumps and thermal energy storage).

26. Unlike the originally proposed IRP Pilot Projects, Enbridge Gas is not proposing to include any CNG injection or other supply side IRPAs in the SLH Pilot Project. This is because there

[12] Exhibit JT1.2.
[13] Exhibit A, Tab 3, Schedule 1, page 10.

is no facility need being avoided, meaning that there is no practical application for such IRPAs.[14]

27. The largest share of the participation, results and budget for the SLH IRP Pilot Project are aimed at the Enhanced DSM ETEE offerings. The DR program will also have a broad target reach. The technology-specific ETEE offerings for electrification measures and Advanced Technologies have a smaller target reach, but will provide different information about future IRPA potential.

28. A summary of each of the proposed components of the IRP Pilot Project is set out over the following subparagraphs. Full details are set out at Exhibit D, Tab 1, Schedule 2.[15]

i. Enhanced DSM ETEE offerings[16]: A suite of ETEE offerings for residential and commercial/industrial customer sectors will be implemented in the Pilot Project area. Pilot Project offerings will leverage existing DSM programming approved by the OEB as part of Enbridge Gas's Application for Multi-Year Natural Gas Demand Side Management Plan 2022-2027 (the 2023-2025 DSM Plan Decision/EB-2021- 0002) where applicable, and will provide enhanced incentives, engagement, and/or marketing efforts to meet the specific objectives of the Pilot Project.

The broad-based DSM measures expected to have the greatest impact on peak demand reduction are those that have been enhanced with additional IRP ETEE incentives. The Company's expectations in this regard will also be examined as part of the Pilot Project. The approach to the Pilot Project ETEE offerings, including attribution of costs and savings between the Pilot Project and existing broad-based DSM Programs, for each of the major customer sectors are discussed in the prefiled evidence.

Leveraging existing offerings with enhanced offers specific to the geographic scope of the Pilot Project is expected to result in an overall reduction in ETEE programming costs relative to developing net new ETEE offerings. Further, this ETEE programming approach

[14] Exhibit I.STAFF-1(a).
[15] Further details about the costs and estimated peak reductions from each of the proposed IRPAs are provided at Exhibit I.ED-3 and 6 and Exhibit JT1.4.
[16] Exhibit D, Tab 1, Schedule 2, pages 6-20.

can build on the existing market awareness of DSM programming. The benefits of this approach will be examined as part of the Pilot Project.

Table 1 below sets out a list of the proposed Enhanced DSM ETEE offerings that Enbridge Gas would offer. Information about the incentive levels associated with each is set out in the prefiled evidence.[17] Incentive levels could be increased, depending on results/observations.[18]

Table 1 – Summary of Enhanced DSM ETEE offerings

2023-2025 DSM Plan Program and Offerings	Pilot Project ETEE Customer Incentive Funding
Residential Program	**Yes**
Residential Whole Home	Yes
Residential Single Measure	No
Residential Smart Home	No
Low Income Program	**No**
Home Winterproofing	No
Affordable Housing Multi-Residential	No
Commercial Program	**Yes**
Commercial Custom	Yes
Prescriptive Downstream	Yes
Direct Install	Yes
Prescriptive Midstream	No
Industrial Program	**Yes**
Industrial Custom	Yes
Large Volume Program	**No**
Energy Performance Program	**No**
Building Beyond Code Program	**No**

ii. Demand Response[19]: For the SLH IRP Pilot Project, Enbridge Gas is proposing to offer a residential DR program in the Pilot Project area. The DR program will seek to understand the impact of shifting hourly gas flows/demands during peak periods on the distribution system. The program is targeting residential customers in the Pilot Project area with natural gas central heating systems controlled by an eligible Wi-Fi connected smart thermostat with DR capabilities. The program will apply a bring-your-own-device

[17] See Exhibit D, Tab 1, Schedule 2, Tables 7-10.
[18] See, for example, Exhibit I.CCC-13 and TC Tr. 135-138.
[19] Exhibit D, Tab 1, Schedule 2, pages 28-32. See also Exhibit I.STAFF-14 and 15.

approach, leveraging the existing smart thermostats of customers. Customers will be financially incented to enroll in the DR program in exchange for allowing Enbridge Gas to control their smart thermostat during the winter heating season; specifically, during peak demand response events.

For the first year of the DR offering, an up-front enrollment incentive of $55 will be provided to customers that enroll to participate in the program. For every heating season the participant remains enrolled in the program and meets eligibility requirements (including participation in at least 50% of DR event hours each heating season), they will receive an additional $25 incentive. Enbridge Gas expects to call approximately 10 total DR events during the program's first heating season (Winter 2025/2026) depending on how cold the winter is. Registered participants who choose to consistently opt-out of DR events (e.g., by manually overriding temperature setbacks during DR event hours, or taking their thermostats offline during DR event hours) may be subject to removal from the offering.

As the Company undertakes the DR offering and learns more about the market for natural gas DR programming, there may be a need to adjust incentive levels to optimize uptake. The proposed Pilot Project budget accounts for such incentive flexibility (i.e., increased uptake over budgeted participation and incentive levels). Changes to the incentive levels will be discussed with the IRP TWG and reported in the Company's IRP Annual Report.

iii. ETEE offering for electrification measures[20]: While the first-generation IRP Framework does not yet make provisions for Enbridge Gas to explicitly fund electric IRPAs, it acknowledges that, "This may be an element of IRP that will evolve as energy planning evolves, and as experience is gained with the IRP Framework."[21]

On a limited participant basis, the Company proposes to offer additional incentives for electric cold climate air source heat pumps (ccASHP) and electric ground source heat pumps (GSHP) in the Pilot Project ETEE-version of the residential whole home offering.

The Company believes the Pilot Project offers a unique opportunity to evaluate the potential applicability and feasibility of electrification measures in an isolated environment.

[20] Exhibit D, Tab 1, Schedule 2, pages 21-23.
[21] See also Exhibit I.PP-24.

Enbridge Gas expects that broader implementation of electrification measures in the future will require integrated energy planning across energy sources, including discussion and engagement between Enbridge Gas and the electricity sector, to ensure a holistic assessment of the impact of these types of measures on the respective grid and system.

To support and inform such future works and collaboration, and to maximize the potential learnings resulting from the Pilot Project, Enbridge Gas is proposing to include incentives for electric ccASHPs and electric GSHPs in conjunction with its ETEE-version of the residential whole home offering.[22]

The additional incentives for electric ccASHPs and electric GSHPs will be capped at 20 participants and 10 participants, respectively. It is expected the additional electrical load demand from these limited number of measures would not have a material impact to the local electricity grid.[23]

iv. ETEE offering for Advanced Technologies[24]: As part of the ETEE programming, Enbridge Gas proposes to incentivize three technologies through an advanced technology ETEE offering within the Pilot Project:

(a) *simultaneous hybrid heating (SHH)* - traditional hybrid heating systems use a natural gas furnace, electric air source heat pump, and a controller that switches between the two heating sources depending on a variety of factors but does not optimize for natural gas peak load reduction. The SHH measure is different in that, when required, the smart controller will operate the electric ccASHP and the natural gas furnace simultaneously to meet heating needs and reduce natural gas peak load.[25]

(b) *natural gas heat pump* - a natural gas heat pump (GHP) is an air source heat pump powered by natural gas that can provide building space heating and cooling as well as domestic hot water heating. With the total delivered energy in the 120–160% efficiency range, GHPs can provide impactful reductions in energy consumption and natural gas

[22] The proposed incentives are described in Table 10 of Exhibit D, Tab 1, Schedule 2 (page 23).
[23] Exhibit I.STAFF-10a)
[24] Exhibit D, Tab 1, Schedule 2, pages 23-28. See also Exhibit I.STAFF-10 and 11. See also TC Tr. 25-26.
[25] Further details are provided at Exhibit JT1.8.

peak demand compared to conventional space heating and water heating equipment, without shifting load to another energy source (such as electricity).

(c) *thermal energy storage* - thermal energy storage (TES) uses a phase change material (PCM) as the storage medium to store thermal energy in off-peak periods to be used during peak periods to reduce natural gas peak flow/demand. Since TES uses PCM as the storage medium, the units are much smaller than traditional water heater tanks that hold a similar amount of energy. Depending on the size of the unit, TES can reduce natural gas peak period demand by up to 20% for residential homes (the entire water heating load) by charging the storage medium with both hydronic gas equipment (boiler or tankless water heater) and off-peak electricity and then dispatching that energy to offset domestic water heating.

The three advanced technologies have been evaluated against the following criteria to be included in the ETEE offering: (i) can reduce system peak load; (ii) can lower energy costs for customers; (iii) can benefit a large number of customers; (iv) are already or will be commercially available in Ontario before the Winter 2025/2026 heating season; and (v) offer additional benefits such as resiliency and customer choice.

In addition to helping Enbridge Gas achieve the Pilot Project objectives described above, the inclusion of advanced technologies in the SLH IRP Pilot Project is intended to build further learnings to support wider market deployment in potential future IRP Plans, through contractor installation and service experiences for these advanced technologies.

For the three advanced technologies, Enbridge Gas is proposing to offer incentives in conjunction with its ETEE-version of the residential whole home offering. The proposed incentives would cover up to 60% of the energy efficiency project costs (including equipment and installation costs of the project), utilizing a direct install delivery model for the region.

Residential incentives for simultaneous hybrid heating, natural gas heat pumps and thermal energy storage will be capped at 40 participants, 20 participants and 40 participants, respectively. Incentives for commercial natural gas heat pumps will be capped at 5 participants.

29. Based on the proposed ETEE and DR programming in the Pilot Project area, the budgeted number of participants and corresponding estimated peak hour savings for each of the proposed IRPAs included in the SLH IRP Pilot Project are summarized in Table 2.[26] These forecasts will be compared to actual results as part of the Company's planned monitoring and reporting (described below).

Table 2 – Summary of Estimated Peak Hour Savings in SLH by Program[27]

	2025	2026
ETEE - Enhanced DSM		
Budgeted Number of Participants	741	751
Estimated Peak Reduction - Cumulative (m^3/hr)	179.7	364.1
ETEE - Electrification Measures		
Budgeted Number of Participants	30	0
Estimated Peak Reduction - Cumulative (m^3/hr)	24.5	24.5
ETEE - Advanced Technology - Gas Heat Pump		
Budgeted Number of Participants	15	10
Estimated Peak Reduction - Cumulative (m^3/hr)	8.1	13.5
ETEE - Advanced Technology - Simultaneous Hybrid Heating		
Budgeted Number of Participants	24	16
Estimated Peak Reduction - Cumulative (m^3/hr)	12.5	20.8
ETEE - Advanced Technology - Thermal Energy Storage		
Budgeted Number of Participants	24	16
Estimated Peak Reduction - Cumulative (m^3/hr)	4.9	8.2
Demand Response		
Budgeted Number of Participants	382	509
Estimated Peak Reduction - Cumulative (m^3/hr)	84.0	196.0

[26] The assumptions underlying Table 2 are set out at Exhibit D, Tab 1, Schedule 2, page 32.
[27] Exhibit D, Tab 1, Schedule 2, page 33, Table 14. Also see Exhibit JT1.4, p. 1, regarding a minor correction to the table.

(ii) Timing and Implementation

30. The SLH IRP Pilot Project has a proposed term of 2023 to 2027. A timeline of major activities associated with the Pilot Project are shown in Table 3.[28]

Table 3 – Southern Lake Huron IRP Pilot Project Timeline

	2023			2024				2025				2026				2027			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Regulatory																			
File Application																			
File Application Update																			
OEB Decision (Estimated)																			
Data Collection																			
Initial Engagement of C/I Customers																			
Hourly Measurement Installation (C/I)																			
Collection of Hourly Data [1]																			
Enhanced Targeted Energy Efficiency (ETEE) [2]																			
Finalize and Setup Programming																			
Deliver Residential ETEE																			
Deliver Commercial / Industrial ETEE																			
Evaluate and Refine Program Design																			
Demand Response (DR) [1]																			
Finalize and Setup Programming																			
Recruit Participants																			
Call DR Events																			
Evaluate and Refine Program Design																			
Monitoring & Evaluation																			
Analyze Baseline Data																			
Analyze Post Implementation Data																			
Evaluation of Pilot Project																			
Reporting																			
Pilot Updates in Annual Report																			
Pilot Report																			

Notes:
[1] Collection of hourly data in 2023/2024 corresponds to customers with existing hourly metering.
[2] Timing subject to date of OEB approval. At least four months after OEB approval is required.

31. The Company will require at least four months from OEB approval to implement ETEE and DR programming in the market and the timing of all aspects of the Pilot Project is subject to the ultimate date of receipt of a Decision and Order of the OEB approving the Company's current Application.[29]

[28] Exhibit D, Tab 1, Schedule 1, pages 2-3.
[29] Exhibit D, Tab 1, Schedule 1, pages 2-3. Further discussion is found at Exhibit I.Staff-9.

(iii) Pilot Project Costs and Cost Recovery

32. The total cost for the SLH IRP Pilot Project over the proposed term of 2023-2027 is estimated to be $14.2 M, excluding overheads.

33. As set out in Table 4 below[30], the costs (both O&M and capital in nature) are subdivided into:

i. Direct Pilot IRPA (Line 4): Costs totaling $12.4M associated directly with the implementation of IRPAs as part of the SLH IRP Pilot Project; and

ii. Pilot Learnings Costs (Line 8): Costs totaling $1.8 M associated with obtaining learnings critical to fulfilling the Pilot Project objectives, as outlined in Exhibit B, Tab 1, Schedule 1. These learnings / fulfilling the pilot project objectives is not only critical to the Pilot Project but also to all future non-pilot IRP plans.

Table 4 - Summary of Southern Lake Huron Pilot Project Budget ($)

Line No.	Particulars ($)	2023	2024	2025	2026	2027	Total
1	**Direct Pilot IRPA**						
2	Demand Side IRPA	-	-	5,864,400	5,260,137	382,884	**11,507,420**
3	Other Costs (O&M)	34,100	80,100	319,136	325,519	166,015	**924,869**
4	**Total Direct Pilot IRPA**	**34,100**	**80,100**	**6,183,536**	**5,585,655**	**548,898**	**12,432,289**
5	**Pilot Learnings**						
6	Data Collection & Analysis (O&M)	-	80,100	582,567	413,123	421,386	1,497,177
7	Hourly Metering Installs (Capital)	-	80,100	194,189	-	-	274,289
8	**Total Pilot Learning**	-	**160,200**	**776,756**	**413,123**	**421,386**	**1,771,466**
9	**Total Pilot**	**34,100**	**240,300**	**6,960,292**	**5,998,779**	**970,284**	**14,203,755**

34. Further details about the nature and quantification of the cost estimates is set out at Exhibit E, Tab 1, Schedule 1.

[30] Exhibit E, Tab 1, Schedule 1, page 2.

35. A detailed breakdown of the specific costs for the ETEE and DR programming is set out below in Table 5.[31]

Table 5 - Breakdown of ETEE and DR Budget ($)

Line No.	Particulars ($)	2023	2024	2025	2026	2027	Total
1	**ETEE**						
2	ETEE - Enhanced DSM						
3	Incentive Cost	-	-	2,806,865	2,885,639	-	**5,692,504**
4	Promotion & Delivery	-	-	1,409,480	1,403,714	285,215	**3,098,409**
5	Administrative Cost	-	-	18,864	18,789	-	**37,653**
6	**Enhanced DSM Total**	-	-	**4,235,209**	**4,308,142**	**285,215**	**8,828,565**
7	ETEE - Electrification Measures *						
8	Incentive Cost	-	-	332,896	-	-	**332,896**
9	Promotion & Delivery	-	-	22,193	-	-	**22,193**
10	Administrative Cost	-	-	-	-	-	-
11	**Electrification Measures Total**	-	-	**355,089**	-	-	**355,089**
12	ETEE - Advanced Technology						
13	Incentive Cost	-	-	643,154	437,345	-	**1,080,499**
14	Promotion & Delivery	-	-	241,349	156,421	-	**397,770**
15	Administrative Cost	-	-	26,521	17,770	-	**44,291**
16	**Advanced Technology Total**	-	-	**911,024**	**611,536**	-	**1,522,560**
17	**Total ETEE**	-	-	**5,501,322**	**4,919,678**	**285,215**	**10,706,214**
18	**DR**						
19	Incentive Cost	-	-	35,176	63,383	37,059	**135,618**
20	Promotion & Delivery	-	-	317,360	267,115	60,610	**645,086**
21	Administrative Cost	-	-	10,542	9,960	-	**20,502**
22	**Total DR**	-	-	**363,078**	**340,459**	**97,669**	**801,206**
23	**Total Demand Side IRPA**	-	-	**5,864,400**	**5,260,137**	**382,884**	**11,507,420**

*Note: Majority of Promotion & Delivery cost is captured under ETEE - Enhanced DSM.

36. Enbridge Gas notes its understanding that the 25% cost adjustment threshold, as noted in the OEB's IRP Framework Decision, will be applicable to the Pilot Project, such that Enbridge Gas is not required to seek approval for cost adjustments within 25% of the total proposed Pilot Project budget. Enbridge Gas notes its expectation that it will have flexibility in the allocation of annual budgets between the years included in the pilot term. This flexibility will allow Enbridge Gas to be responsive to learnings and feedback and allow for adjustments to the program designs as necessary.[32]

37. Enbridge Gas proposes to include the IRP Pilot Project operating costs for the SLH IRP Pilot Project in the IRP Operating Costs Deferral Account and the actual annual revenue

[31] Exhibit E, Tab 1, Schedule 1, page 3.
[32] Exhibit E, Tab 1, Schedule 1, page 1. See also Exhibit I.STAFF.24.

requirement for the IRP Pilot capital cost for the SLH Pilot Project in the IRP Capital Costs Deferral Account.

38. A summary of the SLH IRP Pilot Project costs by year is set out in Table 6 below[33]:

Table 6 – Summary of IRP Pilot Project costs by year ($000)

Line No.		2023	2024	2025	2026	2027	2028	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Southern Lake Huron Project							
1	Operating Costs (1)	34	160	6,766	5,999	970	-	13,929
2	Capital Costs (2)	-	99	235	-	-	-	334
3	Total	34	259	7,001	5,999	970	-	14,264
4	Total Pilot Costs	34	259	7,001	5,999	970	-	14,264

Notes:
(1) Exhibit E, Tab 1, Schedule 1, Attachment 1.
(2) Exhibit E, Tab 1, Schedule 1, Attachment 2.

39. Enbridge Gas proposes to allocate the IRP Operating Costs and the IRP Capital Costs deferral account balances related to the SLH IRP Pilot Project to Union South in-franchise rate classes in proportion to Union South design day demands, excluding design day demands served directly off transmission lines.[34] The proposed cost allocation methodology is consistent with the allocation of distribution mains in the Union South rate zone in Union's 2013 OEB-approved Cost Allocation Study. The proposed cost allocation methodology is the same as the allocation methodology that would be used for the majority of assets that would be installed under a similar facility project.[35]

40. Enbridge Gas has proposed harmonized cost allocation methodologies in the 2024 Rebasing application that are different than the cost allocation methodology described above. If the OEB approves cost allocation methodologies that are different than described in this Application, Enbridge Gas may propose a change to the allocation methodology as part of the Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application where disposition is requested for actual IRP Pilot Project costs.[36]

[33] Exhibit E, Tab 1, Schedule 2, pages 3-4.
[34] Exhibit E, Tab 1, Schedule 2. Further details are set out at Exhibit I.CCC-16.
[35] Exhibit E, Tab 1, Schedule 2, page 4. See also Exhibit I.STAFF.20
[36] Exhibit E, Tab 1, Schedule 2, page 5. See also Exhibit JT1.19.

(iv) Evaluation, Monitoring and Reporting

41. Enbridge Gas has developed data collection and evaluation plans to support the two main objectives of the SLH IRP Pilot Project, which are: (i) to evaluate and observe the impact of ETEE and DR programs on peak demand; and (ii) to understand how to design, deploy, and evaluate ETEE and residential DR programs.[37]

42. To support the peak hour impact evaluation of ETEE, Enbridge Gas will leverage existing hourly flow measurement on residential/small commercial customers and will install additional hourly flow measurement on larger commercial/industrial customers in the Pilot Project area, where data will be collected for the duration of the Pilot Project. Customers will be grouped by type and their peak hour flows will be estimated at the beginning and the end of the Pilot Project. The average flow change in customers that did not participate in ETEE (baseline) will be compared with the change in those that did participate. This difference will be the net impact of ETEE.[38]

43. To support the peak hour impact evaluation of DR, the same flow measurement will be used to create hourly flow estimates at various temperatures. For customers participating in DR, their peak hourly flow estimates will be compared with the actual flow data on event days. The difference between estimated flows and actual flows for a group of participants will be the net impact of DR.[39]

44. Each of the above evaluation approaches will be supported and enabled by the fact that there is already widespread deployment of ERTs in the SLH Pilot Project Area.[40]

45. The evaluation plan for ETEE and DR programming will include process and outcome evaluation approaches. These approaches will include conducting surveys and interviews along with data analysis of financial and participation results. In undertaking these evaluation plans, a third-party consultant may be engaged to assist the Company in optimizing its learnings. If engaged, the third-party consultant could provide support at the start of the Pilot Project regarding data collection and throughout the duration of the Pilot Project to provide in-

[37] Described at Exhibit D, Tab 1, Schedule 3.
[38] Exhibit D, Tab 1, Schedule 3, page 1. Further details are set out at pages 2-4 of the same Exhibit.
[39] Exhibit D, Tab 1, Schedule 3, page 1. Further details are set out at pages 4-7 of the same Exhibit.
[40] Exhibit D, Tab 1, Schedule 3, pages 3-4.

year feedback, and could produce a report at the end of the Pilot Project regarding successes and learnings.[41]

46. Enbridge Gas will provide Pilot Project updates and key learnings to the OEB and stakeholders through the IRP Annual Report that the Company files as part of its annual Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application.[42] More frequent reporting will be provided to the IRP TWG.[43]

47. As results become available on the primary objectives of the Pilot Project (understanding impact on peak hour flows, and understanding how to design, deploy and evaluate ETEE and DR programs), these results will be reported to the OEB and stakeholders and subsequently integrated into future IRP Plans. This will reduce the risk of these future IRP Plans by ensuring program design and measures implemented will deliver more consistently known peak hour savings, and the resultant impact on future facility needs can be more closely estimated. Results will also inform better estimates on the costs of ETEE programing.[44]

48. It is expected that the availability of peak hourly data may allow for a greater understanding of customer usage patterns by customer type and could provide insight that will support future system design and demand forecasting.[45]

49. Based on the evaluation methods outlined above, where conclusions can be drawn on the Pilot Project's impact on peak hour flow of specific customer groups, the need for detailed monitoring of individual customer hourly consumption data may not be required in future IRP Plans. This will provide cost savings on future IRP Plans by reducing the amount of metrology required on those customers. In instances where the results are inconclusive, detailed monitoring of individual customer hourly consumption data may be required on a go-forward basis.[46]

[41] Exhibit D, Tab 1, Schedule 3, pages 3-4
[42] Exhibit D, Tab 1, Schedule 3, page 10.
[43] Exhibit I.STAFF-23.
[44] Exhibit D, Tab 1, Schedule 3, page 10.
[45] Exhibit D, Tab 1, Schedule 3, page 10.
[46] Exhibit D, Tab 1, Schedule 3, page 10.

50. Upon conclusion of the Pilot Project term, final reporting will be presented/provided and the results from the Pilot Project's evaluation will be reviewed to determine next steps.[47]

D. ALIGNMENT WITH IRP FRAMEWORK AND ISSUES LIST

51. The SLH IRP Pilot Project proposal is consistent with and responsive to the OEB's direction set out in the IRP Framework.[48]

52. The OEB's IRP Framework indicates that:

> *Enbridge Gas is expected to develop and implement two IRP pilot projects. The pilots are expected to be an effective approach to understand and evaluate how IRP can be implemented to avoid, delay or reduce facility projects.*

53. Enbridge Gas submits that the multi-faceted nature of the SLH IRP Pilot Project, which aims to test the impacts of both ETEE and DR, including new technologies, satisfies the intent of the OEB's direction.[49]

54. Enbridge Gas acknowledges that the timing of the SLH IRP Pilot Project is later than expected. The reasons for this are explained in Exhibit A, Tab 3, Schedule 1.

55. In the IRP Framework, the OEB encouraged Enbridge Gas to use the IRP pilot projects as a testing ground for an enhanced DCF+ test. That has not been done in this case, because the test has not yet been developed. Ultimately, given that there are no facility needs being addressed through the SLH IRP Pilot Project, this would not have been an ideal forum to test the enhanced DCF+ test. In any event, Enbridge Gas has committed to including the enhanced DCF+ test in its first non-pilot IRP Plan application. Enbridge Gas intends to implement learnings from the SLH Pilot Project (as they become available and where possible) into the enhanced DCF+ tests completed to support future IRP Plan applications.[50]

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[47] Exhibit D, Tab 1, Schedule 3, page 11.
[48] The OEB's expectations and direction about IRP Pilot Projects is set out at page 24 of the IRP Framework.
[49] TC Tr. 142.
[50] Exhibit B, Tab 1, Schedule 2, page 2. See also Exhibit I.STAFF-17 and Exhibit I.ED-1.

56. Enbridge Gas has complied with the expectation in the IRP Framework that IRP pilot project costs are to be tracked in the IRP Costs deferral accounts, and recovery can be requested annually for prudently incurred costs.

57. Finally on the topic of IRP Pilot Projects, the IRP Framework states that:

> *Enbridge Gas should share key learnings from the pilots through reporting to the OEB and stakeholders, through the annual IRP report and more frequent updates to the IRP Technical Working Group, as needed. This experience will facilitate the development of other IRP Plans and identify areas for enhancement to the IRP Framework.*

58. Enbridge Gas has worked closely with the IRP TWG in developing the SLH IRP Pilot Project. The Company intends to continue to update the IRP TWG on progress as the Pilot Project is implemented. Annual reporting, as well as end-of-project reporting, will provide all stakeholders with information about key learnings from the SLH IRP Pilot Project.

59. In Sections 3 and 9 of the IRP Framework, the OEB set out guiding principles for IRP and directed Enbridge Gas to discuss how the IRP guiding principles have been addressed within each IRP Plan application.

60. Enbridge Gas's prefiled evidence explains how the SLH IRP Pilot Project fits with applicable IRP guiding principles, including public policy, optimized scoping and risk management.[51]

61. The OEB has established a detailed Issues List for this Application. The Company's evidence has addressed all of the issues, and the reasons why approvals should be granted.

62. In Appendix A to these submissions, Enbridge Gas sets out its high-level response to each issue on the Issues List, along with a summary of the evidence responsive to that issue.

[51] Exhibit B, Tab 1, Schedule 2.

E. RELIEF REQUESTED

63. Enbridge Gas respectfully requests that the OEB approve the SLH IRP Pilot Project as proposed.

64. The specific items for which Enbridge Gas requests approval are the following:

i. The scope and contents of the SLH IRP Pilot Project;

ii. The cost consequences of the SLH IRP Pilot Project;

iii. The proposed accounting treatment to record costs of the SLH IRP Pilot Project in the IRP costs deferral accounts for later disposition and recovery; and

iv. A determination that the SLH IRP Pilot Project scope and objectives, which includes testing of a variety of IRPAs, satisfies the direction in the IRP Framework to bring forward two IRP pilot projects.

All of which is respectfully submitted this 24th day of September 2024.

David Stevens, Aird & Berlis LLP
Counsel to Enbridge Gas

APPENDIX A - ANNOTATED ISSUES LIST

Issue 1.0: Project Need

1.1: Will the Pilot Project assist in understanding and evaluating how IRP can be implemented to avoid, delay or reduce facility projects?

Yes. The objectives of the Pilot Project are to develop an understanding of how ETEE and DR programs impact peak hour flow/demand and how to design, deploy and evaluate ETEE and residential DR programs.

Although there is no baseline facility need associated with the Pilot Project, learnings from the Pilot Project regarding ETEE and DR program impacts on peak hour flow/demand will be used to refine Enbridge Gas's assumptions, to be used in future IRP assessments to better assess how IRPAs can be implemented to avoid, delay or reduce facility projects.

Evidence: The evidence in relation to this issue includes the following:

A-2-1	Application
A-3-1	Project Update Summary
B-1-2	Project Need
D-1-2	Pilot Project Description (Southern Lake Huron)
I.OGVG-1	OGVG Interrogatory #1
JT1.6	PP Undertaking #1.6

1.2 Are the objectives developed for the Pilot Project appropriate?

Yes. Enbridge Gas considered a broad array of potential IRPAs, alone and in combination, when determining its Pilot Project objectives. Ultimately, the Company determined that the Pilot Project would primarily be focused on gathering transferrable learnings regarding IRPA design, performance and potential for scalability, including insights on peak flow reductions from demand-side IRPAs (i.e., ETEE and DR programs).

Enbridge Gas focused the Pilot Project objectives on demand-side alternatives (ETEE and DR) as Enbridge Gas has limited experience with using these alternatives to reduce peak hour demands, compared to supply-side alternatives.

Throughout the Pilot Project selection process, and in an iterative manner, Enbridge Gas sought and considered feedback from the IRP TWG on the proposed Pilot Project objectives, alternatives, selection criteria, potential IRPAs and the Company’s rationale for selecting the Pilot Project.

Evidence: The evidence in relation to this issue includes the following:

B-1-1, para. 8	Objectives of the Pilot Project
C-1-2, para. 1	Pilot Project Alternatives
C-1-2, para. 6	Pilot Project Alternatives
I.STAFF-1, p. 2	STAFF Interrogatory #1

Issue 2.0: Project Alternatives

2.1: Is Enbridge Gas's IRP pilot project selection process, selection criteria, and decision to select the Southern Lake Huron community appropriate?

Yes. Enbridge Gas considered several criteria to develop a list of potential Pilot Projects. Potential Pilot Projects were evaluated and ranked using a weighted average scoring matrix based on several criteria. Southern Lake Huron scored the highest in the evaluation matrix given that existing ERT technology is already in place for the majority of residential and small commercial customers and has a representative customer mix compared to provincial averages.

Throughout the Pilot Project selection process, and in an iterative manner, Enbridge Gas sought and considered feedback from the IRP TWG on the proposed Pilot Project objectives, alternatives, selection criteria, potential IRPAs and the Company's rationale for selecting the Pilot Project.

Evidence: The evidence in relation to this issue includes the following:

C-1-2, pp. 1-3	Pilot Project Alternatives
C-1-2, pp. 7-10	Pilot Project Alternatives
JT1.2	PP Undertaking #1.2

2.2: Will the Pilot Project selected give Enbridge Gas the ability to apply learnings to future IRPA design, performance and have the potential for scalability?

Yes. The demographics and market characterizations of the City of Sarnia are comparable to provincial averages, enabling transferrable learnings to other geographies. Additionally, the customer base served by the Southern Lake Huron system consists of a balanced mix of residential, commercial, and industrial customers, enabling transferable learnings.

Evidence: The evidence in relation to this issue includes the following:

C-1-2, pp. 7-10	Pilot Project Alternatives

Issue 3.0: Proposed Project

3.1: For the Pilot Project, has Enbridge Gas appropriately described the identified system need, and the baseline facility alternative?

There is no longer a baseline facility alternative related to the Southern Lake Huron Pilot Project in the Company's 10-year capital forecast.

The primary objectives of the Pilot Project are to gather learnings regarding demand-side alternatives rather than to address a system constraint using the most cost-effective alternative. The Southern Lake Huron Pilot Project learnings will be used to refine Enbridge Gas's current assumptions regarding IRPAs and provide more accurate data and information that can be used in future IRP assessments.

Evidence: The evidence in relation to this issue includes the following:

A-3-1, paras. 21-27	Project Update Summary
JT1.12(1)	APPrO Undertaking #1.12(1)

3.2: Has Enbridge Gas appropriately described how the Pilot Project meets the applicable IRP Framework Guiding Principles?

Yes. The Southern Lake Huron Pilot Project meets the relevant criteria related to the IRP Framework Guiding Principles.

Evidence: The evidence in relation to this issue includes the following:

B-1-2	IRP Framework Guiding Principles

3.3: Taking into consideration the OEB's IRP Framework that says that electricity IRPAs will not be included in the first generation IRP projects, is it appropriate to include a limited offering of electrification measures as an IRPA for the Pilot Project?

Yes. The Pilot Project offers a unique opportunity to evaluate the potential applicability and feasibility of electrification measures in an isolated environment. Enbridge Gas expects that broader implementation of electrification measures in the future will require integrated energy planning across energy sources, including engagement with the electricity sector. To support and inform such future works and collaboration with the electricity sector, and to maximize the potential learnings resulting from the Pilot Project, limited electricity IRPAs are required within the Pilot Project.

Evidence: The evidence in relation to this issue includes the following:

D-1-2, para. 40	Pilot Project Description

3.4: Are Enbridge Gas's proposed IRPAs for the Pilot Project appropriate?

Yes. Enbridge Gas considered a broad array of potential IRPAs, alone and in combination, when determining its Pilot Project objectives. Enbridge Gas focused the Pilot Project objectives on demand-side alternatives (ETEE and DR) as Enbridge Gas has limited experience with using these alternatives to reduce peak hour demands, compared to supply-side alternatives. ETEE includes a suite of offerings featuring a portfolio of measures that leverages existing DSM programming for residential, commercial and industrial customers, to gain an understanding of differences in ETEE versus broad-based DSM programming with respect to design, implementation, uptake, and impact to peak hour. This also includes limited ETEE offerings for electrification and advanced technologies to build learnings to support integrated energy planning and wider market deployment. The Southern Lake Huron Pilot Project includes a residential DR program, which will be the first time Enbridge Gas is piloting a program of this nature.

Evidence: The evidence in relation to this issue includes the following:

C-1-2, para. 1	Pilot Project Alternatives
C-1-2, para. 6	Pilot Project Alternatives
I.STAFF-1, p. 2	STAFF Interrogatory #1

3.5: Is Enbridge Gas's proposed spending appropriately allocated between the IRPAs (e.g., efficiency programs vs. electrification measures vs. advanced technologies) for the Pilot Project?

Yes. The majority of the proposed spending for the Pilot Project is allocated towards the implementation of Enhanced DSM ($8.8M of $11.5M budget, excluding overheads) with the remainder of the IRPA program budget allocated to electrification measures, advanced technologies, and DR. The enhanced DSM offer includes the largest portion of the budget to support enriched incentives, that are expected to cover 100% of the project costs for the majority of participants, and increased marketing across all sectors, including residential, commercial and industrial, to drive higher penetration and participation within the pilot area and in turn, support the key objectives of the SLH IRP Pilot Project.

While the IRP Framework does not support funding for electrification measures, the SLH IRP Pilot Project offers a unique opportunity to evaluate the potential applicability and feasibility of electrification measures in an isolated environment to gain learnings regarding electricity-based IRPAs.

The advanced technology offering is included as a supplemental new offering to complement the enhanced DSM offerings as these technologies, while in the early stage of full commercialization, still offer sizeable natural gas peak hour demand reduction. Learnings for these technologies can support wider market deployment in future IRP Plans.

Both the electrification and advanced technology offering includes caps to the number of participants, limiting the budget relative to the enhanced DSM offering, while still enabling learnings to support broader deployment in future IRP Plans.

Evidence: The evidence in relation to this issue includes the following:

D-1-2	Pilot Project Description
E-1-1	Pilot Project Costs & Economics
I.STAFF-10	Staff Interrogatory #10

3.6: Are Enbridge Gas's proposed program designs for IRPAs (e.g., measures included, sectors targeted, incentive levels, marketing and outreach strategy, attribution approach between DSM and IRP) appropriate for the Pilot Project?

Yes. The proposed program design for IRPAs includes offerings for all sectors (residential, commercial and industrial), and a wide range of measures that have an impact on natural gas peak hour demand to allow for transferable learnings. The proposed enhanced incentive levels are expected to cover 100% of the project costs (for the majority of participants), and the geo-

targeted engagement and marketing includes exploring a variety of strategies to drive increased awareness and offering uptake.

For the purpose of the SLH IRP Pilot Project, Enbridge Gas has proposed a simplified attribution approach for ETEE offerings whereby all incentives will be funded by the Pilot Project, and accordingly, all results would be attributed to the Pilot Project's ETEE program and not to DSM programs. A general policy on the approach to DSM-IRP attribution is anticipated to be considered as part of the first non-pilot IRP Plan application filed by the Company.

Evidence: The evidence in relation to this issue includes the following:

D-1-2	Pilot Project Description (Southern Lake Huron)

3.7: Are Enbridge Gas's proposed evaluation, measurement, and verification objectives and methodologies appropriate for the Pilot Project? Do they enable Enbridge Gas to determine the effectiveness of IRPAs and to report on the results of the IRP pilot project?

Yes. Enbridge Gas has developed data collection/monitoring and data analysis/evaluation approaches for each IRPA, related to the objectives for the Pilot Project. Enbridge Gas will use the collected data and observations as the basis for its reporting.

Evidence: The evidence in relation to this issue includes the following:

D-1-3	Evaluation and Monitoring
JT1.6	PP Undertaking #1.6

3.8: Is the timeframe for the Pilot Project appropriate?

Yes. The proposed Pilot Project timeframe includes two years of in-market ETEE and DR programming, which will allow for the opportunity to observe market responses, while being responsive to learnings and feedback as needed. Additionally, the amended application includes a larger Pilot Project area for enhanced DSM, providing the opportunity to obtain a more representative sample size of participants within a shorter timeframe, and in turn inform learnings on the IRP Pilot Projects' objectives.

Evidence: The evidence in relation to this issue includes the following:

D-1-2, Table 1	Southern Lake Huron Pilot Project Timeline
JT1.12(2)	APPrO Undertaking #1.12(2)

Issue 4.0: Project Cost and Economics

4.1: Is Enbridge Gas's proposed budget for the Pilot Project appropriate?

Yes. Enbridge Gas's proposed budget was determined based on achieving the Pilot Project objectives. In the amended Application, Enbridge Gas aims to maximize the opportunity of the available existing Encoder Receiver Transmitter (ERTs) already in place in the Southern Lake

Huron system, to reduce costs associated with data collection and metering while enhancing the representative nature of the pilot and subsequent learnings that can then be transferrable to future IRP assessment and IRP Plans.

Evidence: The evidence in relation to this issue includes the following:

B-1-1, para. 8	Project Need
A-3-1	Project Update Summary
JT1.12(2)	APPrO Undertaking #1.12(2)
E-1-1	Pilot Project Costs & Economics

4.2: Is Enbridge Gas's economic analysis for the Pilot Project appropriate?

While the OEB encouraged Enbridge Gas to use the Pilot Projects as a testing ground for an enhanced DCF+ test, due to the timing of the IRP TWG's review of the enhanced test and the timing of the current Application, the Company will defer presenting a three-stage enhanced DCF+ test for adjudication until its first non-pilot IRP Plan application.

As there are no longer any baseline facilities being delayed or avoided through the SLH IRP Pilot Project, the need for economic analysis is less clear in this instance.

Evidence: The evidence in relation to this issue includes the following:

E-1-1	Pilot Project Costs & Economics
I.OGVG-1	OGVG Interrogatory #1

4.3: Is Enbridge Gas's proposed approach to cost allocation and cost recovery appropriate and consistent with the intended use of the two OEB approved IRP Operating Cost and Capital Cost Deferral Accounts?

Yes. Enbridge Gas proposes to include the IRP Pilot Project costs in the IRP Costs deferral accounts because the project costs are incremental to the costs that support Enbridge Gas's 2024 current-approved interim rates.

Enbridge Gas's proposed cost allocation methodology is consistent with the allocation of distribution mains in the Union South rate zone in Union's 2013 OEB-approved Cost Allocation Study.

Evidence: The evidence in relation to this issue includes the following:

E-1-2	Cost Allocation and Recovery
I.Staff-20	Staff Interrogatory #20
JT1.13	APPrO Undertaking #1.13
JT1.19	OGVG Undertaking #1.19
JT1.20	OGVG Undertaking #1.20

Issue 5.0: Stakeholdering

5.1: Has Enbridge Gas appropriately engaged with stakeholders and the IRP Technical Working Group on the Pilot Project?

Yes. Enbridge Gas conducted targeted engagement within the Pilot Project area. Multiple stakeholder engagement sessions with the local municipalities, local electric distribution companies (LDC), and Independent Electricity System Operator (IESO) were held to provide an overview of the Pilot Project and to seek input in confirming the natural gas demand forecast in the area as well as any electrical grid system constraints.

Throughout the Pilot Project selection process, and in an iterative manner, Enbridge Gas sought and considered feedback from the IRP TWG on the proposed Pilot Project objectives, alternatives, selection criteria, potential IRPAs and the Company's rationale for selecting the Pilot Project.

Evidence: The evidence in relation to this issue includes the following:

F-1-1	Stakeholder Engagement
B-1-1, para. 3	Project Need
C-1-2, para. 6	Pilot Project Alternatives

Issue 6.0: Other

6.1: Are there appropriate milestones/ checkpoints/ metrics in place to ensure Enbridge Gas is monitoring and adjusting the design of a Pilot Project on a timely basis to optimize project performance and achieve the intended project outcomes?

Yes. Enbridge Gas has developed data collection/monitoring and data analysis/evaluation approaches for each IRPA, related to the objectives for the Pilot Project. Third party consultants may also be engaged to assist Enbridge Gas in the analysis and evaluation of the pilot project results**.**

Enbridge Gas will gather and provide Pilot Project updates, learnings and key insights on an ongoing basis to the IRP TWG, municipalities, electric LDCs and the IESO when information is available. Any feedback obtained through these updates to the IRP TWG, municipalities, electric LDCs, the IESO or from the OEB and other intervenors will be reviewed by Enbridge Gas and implemented where appropriate.

Evidence: The evidence in relation to this issue includes the following:

D-1-3	Evaluation and Monitoring
E-1-1, para. 3	Pilot Project Costs and Economics
I.STAFF-23	Staff Interrogatory #23

6.2: What timing, frequency, and format is appropriate for reporting on the Pilot Project?

Enbridge Gas will provide updates on, including but not limited to, ETEE and DR program implementation and the impact of the IRPAs on natural gas peak hour demands over the Pilot Project duration.

Enbridge Gas will provide Pilot Project updates and key learnings to the OEB and stakeholders through the IRP Annual Report that the Company files as part of its annual Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application. At the conclusion of the Pilot Project, final reporting will be provided to the OEB and stakeholders.

Evidence: The evidence in relation to this issue includes the following:

D-1-3, para. 33	Evaluation and Monitoring
I.STAFF-23	Staff Interrogatory #23

6.3: What are the appropriate Conditions of Approval for the Pilot Project?

Enbridge Gas submits that no Conditions of Approval are necessary. The OEB's standard leave to construct Conditions of Approval generally relate to construction activities regarding facilities projects and are not applicable to the Pilot Project.[52] There are no facilities associated with the Pilot Project.

Evidence: The evidence in relation to this issue includes the following:

N/A

[52] OEB Natural Gas Facilities Handbook (March 31, 2022), Appendix D (link).