

Ms. Nancy Marconi  
Registrar  
Ontario Energy Board  
P.O. Box 2319, 27th Floor  
2300 Yonge Street  
Toronto, ON M4P 1E4

October 13, 2023

**EB-2022-0335 – Enbridge IRP Pilot Projects  
Pollution Probe Interrogatories to the Applicant**

Dear Ms. Marconi:

In accordance with Procedural Order No. 1 for the above noted proceeding, please find attached Pollution Probe's Interrogatories to the Applicant.

Please reach out should you have any questions.

Respectfully submitted on behalf of Pollution Probe.



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**ONTARIO ENERGY BOARD**

**Enbridge Gas Inc.  
IRP Pilot Projects**

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**POLLUTION PROBE INTERROGATORIES**

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**October 13, 2023**

**Submitted by: Michael Brophy  
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Consultant for Pollution Probe**

1-PP-1

Please detail what facility projects will be avoided, delayed or reduced as a result of each proposed Pilot Project.

1-PP-2

- a) For each proposed Pilot Project, please provide a copy of the completed IRP Screening documents for the capital project(s) being avoided, delayed or reduced.
- b) For the capital project(s) being avoided, delayed or reduced, please provide a copy of all related reports or documents which assesses the technical feasibility and likelihood of IRP alternatives (IRPA) eliminating, reducing or deferring the project scope.
- c) Please provide a copy of all materials (e.g. documents, reports, spreadsheets, presentations, etc.) assessing cost effectiveness of the IRP alternatives proposed for each Pilot Project

1-PP-3

Reference: PollutionProbe\_IR\_AppendixA\_EnbridgeIRPGuide\_20231013

- a) Please confirm that Enbridge created its internal IRP Guide to guide IRP assessment in accordance with OEB requirements.
- b) Please explain how Enbridge's IRP Guide was used to identify and assess the opportunity to apply IRP for the pilots. Alternatively, if the Guide was not used, please explain why not.

1-PP-4

For each Pilot Project impacted area, please provide:

- a) The total peak system design capacity
- b) The current peak capacity per year for the past 10 years
- c) The peak capacity reduction targeted by the pilot project
- d) A list of upstream pipelines that feed the pilot area (or a map of the gas supply route to feed these communities from transmission lines if that is easier)

1-PP-5

For each proposed Pilot Project, please provide the following:

- Please provide a list of objectives from the municipality that were provided for consideration and explain which were accepted/rejected by Enbridge and why.
- Please provide a list of objectives from the local LDCs that were provided for consideration and explain which were accepted/rejected by Enbridge and why.
- Please provide a list of objectives from the IESO that were provided for consideration and explain which were accepted/rejected by Enbridge and why.
- Please provide a list of objectives from the OEB IRP Technical Working Group that were provided for consideration and explain which were accepted/rejected by Enbridge and why.
- Please provide a list of objectives from other relevant stakeholders that were provided for consideration and explain which were accepted/rejected by Enbridge and why.

1-PP-6

Please provide a full list of potential IRP alternatives that could be applied under the OEB IRP Decision and related IRP Framework. Please provide a column for each pilot project proposed and mark which of IRP alternatives from the full list are proposed to be applied to each pilot project.

1-PP-7

For each pilot project, please provide a table of each IRP alternative being piloted and include the following information for each:

- Number of customers for each IRP alternative proposed (by customer type if possible)
- The estimated peak (per unit and total) demand load reduction per IRP alternative
- The estimated cost (per unit and total) per IRP alternative
- The estimated benefit (per unit and total) per IRP alternative
- The net economic analysis result (all IRP tests) (per unit and total) per IRP alternative

1-PP-8

Reference: "...the Company intends to present a three-stage enhanced DCF+ as part of its first full IRP Plan application for adjudication, not as part of the current Application..." [Exhibit B, Tab 1, Schedule 1, Page 5]

- a) Please explain why this application is exempt from full DCF consideration including the three-stage enhanced DCF.
- b) Has Enbridge conducted its own DCF calculations for the proposed Pilot Projects? If yes, please provide a copy.

1-PP-9

For each pilot area:

- a) Please explain what curtailment tools are included or considered options for each pilot area being considered.
- b) Please provide what amount (and percentage) of the peak load could be avoided if all commercial and industrial large volume customers could be curtailed.

1-PP-10

For each pilot area please provide an estimate of DSM/Greener Homes Grant results expected over the next 10 years, by year and in aggregate.

1-PP-11

Did Enbridge conduct broader integrated energy considerations (e.g. the community full energy needs and plans to meet those needs) as part of Pilot Projects or just those related to natural gas for each Pilot Project?

1-PP-12

Reference: "Following the OEB's Decision on Enbridge Gas's IRP proposal, the Company developed specific objectives for the pilot projects (described in detail at Exhibit C, Tab 2, Schedule 1). Enbridge Gas then selected two Pilot Projects that were able to meet those objectives." [Exhibit B, Tab 1, Schedule 1, Page 1]

Please provide a copy of the completed evaluation for all pilot options considered, including the Pilot Projects selected by Enbridge.

1-PP-13

Reference: [Exhibit C, Tab 1, Schedule 1]

Enbridge indicates that in the 2023-2032 AMP, the required in-service date to address the identified system need/constraint in the Parry Sound system is 2032, but then Enbridge identifies additional projects for Parry Sound in 2025, 2027 and 2030. Are all these projects avoided if the IRP alternatives are successful? If not, please explain.

1-PP-14

Reference: [Exhibit C, Tab 1, Schedule 1]

Enbridge indicates that In the 2023-2032 AMP, the required in-service date to address the identified SLH system need/constraint is 2032, but then Enbridge identifies additional projects for SLH in 2025 and 2032. Are all these projects avoided if the IRP alternatives are successful? If not, please explain.

2-PP-15

- a) Please provide a copy of the criteria and weighting used to select each pilot location.
- b) Please provide the completed assessment used to evaluate and select the pilot locations.
- c) Please provide a copy of the correspondence to the municipalities and related LDCs for the Pilot Project identifying the reasons for selecting their territory for the gas IRP pilot.

2-PP-16

The OEB requires Enbridge to implement IRP assessment and alternatives on all project in the Asset Management Plan and the OEB indicated that the implementation of pilots should not be a barrier to addressing a system need through IRP. Please explain how the Pilot Projects are different from just applying regular IRP requirements and what would be different if Enbridge just applied regular IRP requirements to these projects rather than treating them as specific pilot projects.

2-PP-17

Reference: "...the Company has already taken limited steps to advance their implementation, including installation of necessary measurement devices within the affected municipalities..." [EGI\_LTR\_IRP\_Pilots\_20221222\_eSigned]

- a) Please provide a summary of activities and related costs incurred to date for the Pilot Projects proposed by Enbridge.
- b) Given that Enbridge has already commenced portions of the Pilot Projects, please comment on whether this restricts the OEB's ability to modify or change the pilots as proposed by Enbridge.
- c) If the Pilot Projects are not accepted by the OEB, please explain how the costs incurred to-date would be treated (e.g. would they just be absorbed in Enbridge's capital and/or O&M envelope).

2-PP-18

- a) Please explain how the Pilot Projects selected are representative of recent or future Leave to Construct project candidates and how Enbridge intends to apply the learnings from these Pilot Projects to other potential projects in the IRP.
- b) Please explain how the Pilots would inform IRP for the following projects currently in Enbridge's IRP:
  - St. Laurent Project (any or all phases in AMP)
  - Panhandle Reinforcement
  - The 10 largest projects in the IRP that passed the IRP Screening and required detailed IRP assessment.

2-PP-19

Please explain the process used for Enbridge management approval to select the proposed Pilot Projects and provide a copy of the materials used to gain that approval (e.g. presentations, emails, etc.).

2-PP-20

- a) Please confirm that Enbridge's current Asset Management Plan resulted in 878 projects passing the IRP Screening resulting in the need for further IRP assessment and potential implementation of IRP alternatives in lieu of the pipeline solution. If incorrect, please provide the right value.
- b) The OEB requires that Enbridge shall identify potential system needs/constraints up to ten years in the future, and describe these in annual updates to the Asset Management Plan (AMP) to allow time for a detailed examination of IRPAs [OEB IRP Framework, Section 5.1]. Please identify which IRP alternatives in the Pilot Projects are options applicable to the 878 (or alternate value from Enbridge) projects that passed the IRP Screening in Enbridge's current Asset Management Plan.
- c) Enbridge has proposed a Pilot timeframe from 2024-2027, which suggests that the final analysis and report would be available in 2027 or later. Please indicate how Enbridge intends to apply Pilot Project learnings real-time starting in 2024 to projects in Enbridge's Asset Management Plan.
- d) Please provide a spreadsheet with the 878 (or alternate value from Enbridge) projects in Enbridge's current AMP that passed the IRP Screening requiring detailed analysis. Please highlight the lines that related to the projects proposed to be replaced by the Pilot Projects. Please include the following columns in the spreadsheet.
  - Project name
  - Year Project is expected to be required
  - Project Costs
  - Project Description (per AMP)

3-PP-21

- a) Please explain what risk assessment Enbridge did to identify potential challenges and barriers related to the proposed pilot areas. Please provide a copy of those risks and any proposed mitigation measures.
- b) Did Enbridge consult with the local LDCs and IESO about any electricity constraints or other factors (e.g. DER/CDM pilots or planned facilities) in the proposed pilot areas. If not, why not. If yes, please provide a copy of the responses.



3-PP-22

Reference: Southern Lake Huron Pilot Project Area [Exhibit A, Tab 2, Schedule 1, Attachment 1, Page 2]

- a) Please explain the difference between the SLH Pilot Area vs. the SLH Area of Influence.
- b) Please explain why the Parry Sound pilot does not have an area of influence.

3-PP-23

- a) Please provide a summary of how DSM (plus Greener Homes Grant program delivered by Enbridge with DSM, as applicable) programs, research, incentives, learning and other value has been leveraged to develop and implement the proposed Pilot Projects.
- b) Please estimate the cost savings for the proposed Pilot Projects due to the synergies and value extracted from DSM and other programs as noted in part a.
- c) In accordance with the OEB's DSM (EB-2021-0002) Decision, will any customers be incented to disconnect from natural gas (e.g. via DSM, Greener Homes Grant, or other incentives) as part of the proposed Pilot Projects, in order to test the effectiveness of those incentives?

3-PP-24

- a) Please confirm that Enbridge understood it was not able to include electric IRP alternatives (e.g. electric cold climate air source heat pumps) in the Pilot Project application, resulting in exclusion of those alternatives.
- b) If the OEB confirms that electric IRP alternatives (e.g. electric cold climate air source heat pumps) are an option for the Pilot Project application, please highlight what will be required by Enbridge to include such alternatives.

3-PP-25

Reference: PollutionProbe\_IR\_AppendixB\_CanmetReport\_20231013 [from Enbridge per EB-2022-0200 Exhibit J11.5]

- a) Please confirm that a Hybrid Heating system using and air source heat pump and gas furnace switches from the heat pump to the gas furnace based on the temperature (or other) setting programed into the controls. If incorrect, please explain.
- b) Please explain what temperature control setting Enbridge proposes to use to switch to the gas furnace for the Hybrid Heating systems.

3-PP-26

Reference: PollutionProbe\_IR\_AppendixB\_CanmetReport\_20231013 [from Enbridge per EB-2022-0200 Exhibit J11.5]

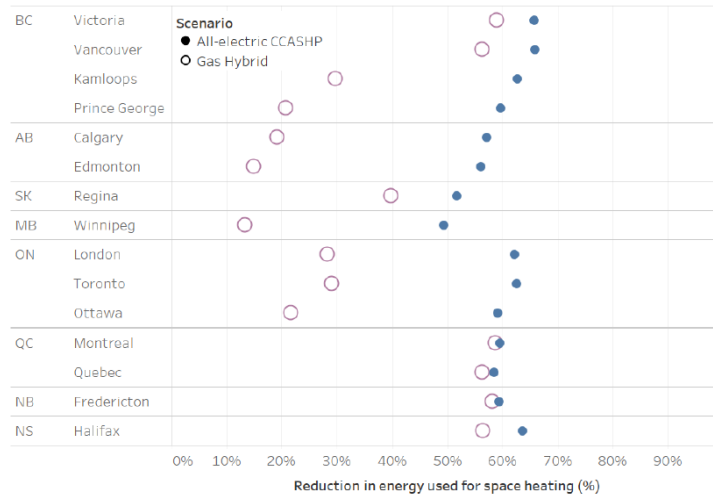


Figure 15: Comparison between energy savings achieved by all-electric CC-ASHP and gas-hybrid in Archetype B (Post 1980s 2-story home), relative to a gas-furnace

The above-noted CanmetENERGY report indicates that Hybrid Heating systems are less efficient than an all electric ccASHP system. If Enbridge has any reports or information which suggests otherwise, please provide a copy.

4-PP-27

Have benefits from the electricity grid (e.g. reduced summer peak loads due to IRP alternatives, or community GHG emission reductions, etc.) been considered and captured in the benefit costs analysis of the project? If not, why not. If yes, please provide a summary of those benefits, value and source (e.g. IESO).

4-PP-28

Enbridge recently confirmed [EB-2022-0200] that there have been no costs included in the OEB approved IRP Operating Cost or Capital Cost Deferral Accounts. It seems odd that Enbridge has never incurred any IRP related costs, including costs related to the proposed Pilot Projects. Please confirm or provide an update on the costs applied to these accounts if this has changed.

4-PP-29

Reference: The OEB indicates that the IRP Variance Accounts must recognize off setting amounts in the account balances to reflect avoided capital cost impacts related to facilities projects that are delayed, avoided or downsized by IRP. [EB-2022-0200 dec\_Settlement Proposal\_EGI 2024 Rebasing\_20230817, Page 54]

For each Pilot Project, please provide the estimated value and timing proposed for off setting amounts in the account balances to reflect avoided capital cost impacts related to facilities projects that are delayed, avoided or downsized by IRP.

5-PP-30

- a) Please provide a full list of stakeholders consulted during development of the Pilots and a summary of feedback received.
- b) Please confirm which stakeholders Enbridge provide details of this OEB proceeding to consider the Pilot Projects and details on how to participate.
- c) Please provide a list of all municipalities considered for the IRP pilots and a copy of correspondence provided.

5-PP-31

- a) Please provide a copy of the municipal energy and emission plans for each municipality where the Pilot Projects are proposed to be conducted and please explain how the pilot objectives align with each municipal energy and emission plan.
- b) For each pilot, please explain how the pilot activities align with the LDC CDM activities/programs in accordance with the OEB CDM Guidelines.
- c) Please identify the synergies and/or efficiencies of selecting these locations for the Pilot Projects, including:
  - Alignment with specific municipal energy and emission programs, resources or metrics.
  - Alignment with LDC CDM programs, consumer outreach or resources.
  - Alignment with IESO CDM programs, funding, consumer outreach or resources.
  - Alignment with Greener Homes Grant Program incentives, consumer outreach or resources.

5-PP-32

Reference: “Enbridge Gas understands that most members are supportive of most elements of the proposed Pilot Projects. Enbridge Gas expects that where a member of the TWG has concerns with one or more elements of the proposed Pilot Projects, they will make this known through the regulatory approval process”. [Exhibit B, Tab 1, Schedule 1, Page 2]

Reference: “Enbridge Gas intends to review its application(s) and supporting evidence with members of the IRP Technical Working Group early in 2023 in order to consider their feedback, in advance of filing with the OEB”.  
[EGI\_LTR\_IRP\_Pilots\_20221222\_eSigned]

- a) Please provide a copy of the materials provided to the OEB IRP TWG related to the Pilot Projects.
- b) Please provide a copy of the feedback received from the OEB IRP TWG related to the IRP Pilots.
- c) Were the pilots already chosen prior to discussion with the OEB IRP TWG or did the TWG have input into pilot objectives and pilot project section?
- d) Enbridge indicated in December 2022 that it intended to have the OEB IRP TWG review its supporting evidence prior to filing with the OEB. Please provide copies of the supporting evidence provided to the TWG prior to filing and indicate what changes were made based on TWG feedback.

6-PP-33

- a) Please provide a copy of the Terms of Reference for the OEB IRP TWG
- b) Please explain the frequency and intended content of Pilot Project updates to the OEB IRP TWG during the 2024-2027 period.
- c) What role (if any) does the OEB IRP TWG have for reviewing, approving or recommending changes during implementation of the Pilot Projects.

6-PP-34

- a) Does Enbridge agree that objectivity and credibility of results from the Pilot Projects are important? If no, please explain why not.
- b) Please explain what controls has Enbridge included for each Pilot Project to ensure that the results are objective and credible.

- c) Has Enbridge considered use of an objective and credible third-party to compile and/or validate the results for the Pilot Projects? If no, why not?