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Advocacy

October 8, 2024

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

Dear Nancy Marconi:

Re: Enbridge Gas Inc. Integrated Resource Planning (IRP) Pilot Project
Ontario Energy Board File Number: EB-2022-0335

I am writing on behalf of Environmental Defence to provide submissions on Enbridge's proposed IRP pilot project. Despite being long overdue, the pilot project is a positive step forward. However, there are significant opportunities to improve the pilot. In particular, Environmental Defence requests that the OEB direct Enbridge to:

1. **Eliminate or greatly reduce spending on gas heat pumps**, which are not cost-effective, and reallocate those funds to pilot instant rebates and expanded electric heat pump participants;

2. **Pilot instant rebates** as a tool to increase interest, participation rates, equity, and customer benefits;

3. **Expand the heat pump** participants as this measure is the most cost-effective method of achieving peak reductions; and

4. **Implement a second pilot** focused on larger customers.

Background re IRP

Although the proposed pilot is a step forward, it is not sufficiently ambitious in light of the numerous times that the OEB has directed Enbridge to undertake integrated resource planning over the past 30 years.[1] These directions date back to the OEB's IRP proceeding in the early 1990s.[2] The OEB's 2021 IRP decision and its direction to carry out pilots is only the latest in a long line of direction from the OEB. A summary of the previous directions is contained in

[1] E.g. EBO 169-III*, Report of the Board on the Demand-Side Management Aspects of Gas Integrated Resource Planning*, July 23, 1993, pp. 1-4; Ontario Energy Board, *Decision in EB-2012-0451/0433, January 30, 2014*, p. 46-47 (GTA Pipeline) (link); Ontario Energy Board, *DSM Framework,* December 22, 2014, p. 35-36 (link); EB-2018-0097, Decision and Order, January 3, 2019, pp. 6-7 (Bathurst Reinforcement) (link); EB-2020-0192 (London Lines), OEB Decision and Order, January 28, 2021, p. 20 (link).
[2] EBO 169-III*, Report of the Board on the Demand-Side Management Aspects of Gas Integrated Resource Planning*, July 23, 1993 (link).

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appendix A. Greater progress is warranted in light of repeated orders from the OEB for more and better integrated resource planning.

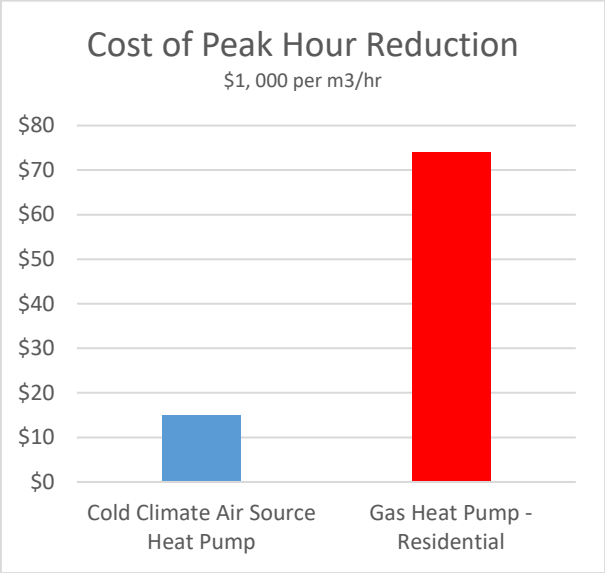
Reduce spending on gas heat pumps

Enbridge should be directed to eliminate or greatly reduce the proposed spending on gas heat pumps and re-allocate those dollars to pilot instant savings and expand the pilot of cold climate heat pumps (discussed below). Gas heat pumps should not be funded via this pilot beyond a minimal level for the same reasons the OEB ordered that they be removed from Enbridge's gas DSM plan. The OEB in that case found as follows:

> The OEB finds that focusing efforts on gas heat pumps, a technology that is not currently commercially available nor as cost-effective as electric heat pumps is not prudent. Although gas-fired heat pumps may be more efficient than high efficiency gas furnaces, offering incentives for this measure would continue the use of natural gas and associated GHG emissions well into the future.
>
> The OEB is of the view that it is more effective to re-allocate the entire Low Carbon Transition Program budget to the Residential Whole Home program offering so that greater progress can be made in advancing the use of electric heat pump technologies throughout Ontario.[3]

However, there are additional reasons to eliminate this spending in the context of this pilot – namely the near universal recommendation of the IRP Working Group to refocus these dollars on more promising technologies. Enbridge agreed with the following summary of that position: "generally speaking the technical working group disagreed with the amount of promotion of gas options in the program, particularly gas heat pumps and too much hybrid heating and not enough electrification."[4]

Furthermore, gas heat pumps are even less cost-effective when considered as a means to reduce peak gas use, as necessary for a successful IRP alternative. Reducing peak gas demand with a gas heat pump costs *five times* as with an electric air source heat pump. This is shown in the figure to the right.[5]



In this context, the proposed spending on gas heat pumps does not make economic sense.

[3] EB-2021-0002, Decision and Order, November 15, 2022, p. 53.
[4] Technical conference transcript, p. 132-133.
[5] JT1.4 (calculation: total cost divided by m3/hr reduction).

Pilot instant rebates

Enbridge should be directed to use this pilot to test ways provide instant rebates to customers for Demand Side Management ("DSM") measures such as insulation, air sealing, and heat pumps. Enbridge states that it plans to use the standard DSM channels to provide the enhanced offerings.[6] Enbridge's DSM program requires customers to pay for upgrades up front and trust that a cheque will come in the mail in the future. This creates major barriers for customers who cannot front the costs or are worried that the rebate will not actually materialize for one reason or another. These are huge barriers. They can be resolved with instant rebates that come directly off the price of the equipment or off the invoice of the insulation contractor.

Instant rebates are good for customers and equity because they allow participation by the large number of customers who do not have the cash on hand to pay for upgrades up front. But they are also good for the viability of an IRPA because of the potential expanded reach. They should at least be piloted.

Expand electric heat pump pilot

Enbridge should be directed to use funds saved from gas heat pumps to expand its piloting of electric heat pumps, or at least should be permitted to do so. Enbridge proposed the least funding and the least participants for electric heat pumps even though they are by far the most cost-effective method of reducing peak demand.[7] More of the funding envelope should be allocated to electric heat pumps.

This would have a number of concrete benefits. Unlike all other measures, Enbridge plans to add heat pump participants only in 2025 and not in 2026.[8] This will limit their ability to test methods of garnering participants. Adding incremental participants in 2026 would remedy that and also generate more robust results.

This change would also follow the expert advice of the working group, which included a general view that there was "not enough electrification" in the pilot.[9] The discrepancy between the allocation of resources to gas heat pumps versus electric heat pumps was glaring to the working group members. One member described the issue in this way:

> I also find it highly problematic that the Company's proposed participation (capped or not) for gas heat pumps is ~2.5 times the budgeted number of full electrification participants and that the hybrid heating participation is double the full electrification participation – even though both options produce far less peak reduction per participant. [10]

[6] Exhibit D, Tab 1, Schedule 2, Page 11
[7] JT1.4 (calculation: total cost divided by m3/hr reduction).
[8] Exhibit D, Tab 1, Schedule 2, Page 33
[9] Technical conference transcript, p. 132-133.
[10] Exhibit I.ED-2, Plus Attachments, Page 10.

Non-pipeline alternatives are valued based on the degree to which they can lower peak demand. It is irrational for the most effective and least expensive method of achieving reductions in peak demand to be the one that receives the least study and investment in this pilot.

Finally, we note that additional emphasis on electric heat pumps would be consistent with OEB guidance, including guidance in the recent Phase 1 rebasing decision. In that decision, the OEB stated as follows:

> A comprehensive IRP approach to renewal projects would include measuring the cost of the renewal project against the cost of the alternative of replacing gas equipment with electric equipment and to implement alternatives that defer or eliminate the need for the replacement project when they are economically feasible.[11]

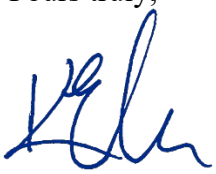
Second pilot for large commercial and industrial customers

Enbridge should be directed by the OEB to conduct a second IRP pilot focused on large commercial and industrial customers. Environmental Defence supports the submissions of other parties making a similar request, such as those made by the Building Owners and Mangers Association ("BOMA"). These larger customers are often a major component of the demand in areas where pipeline projects are proposed. It is important that they be included in IRP analysis.

Conclusion

For the reasons set out above, Environmental Defence asks that the OEB make the directions listed on page 1 of these submissions. This would result in a pilot that would produce more robust results and represent better value-for-money, and could potentially lead to better non-pipe alternatives in the future to the benefit of all ratepayers.

Yours truly,



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[11] EB-2022-0200, Decision and Order, December 21, 2023, p. 52.

APPENDIX A: SUMMARY OF OEB DIRECTIVES RE IRP

The Board has directed Enbridge to practice Integrated Resource Planning many times over the past 30 years.[12] These directions date back to the OEB's IRP proceeding in the early 1990s.[13] This summary will focus on the directions provided by the OEB over the last decade. Through these directions, the OEB has repeatedly highlighted the importance of IRP, expressed concerns about the lack of progress by Enbridge in this area, and directed Enbridge to do IRP better and sooner.

In the decision in the GTA pipeline case (EB-2012-0451), the OEB directed Enbridge "to provide a more rigorous examination of demand side alternatives, including rate options, in all gas leave to construct applications."[14] The decision also directed Enbridge to incorporate IRP in its planning in a more systematic way:

> Environmental Defence urged the Board to send a signal to the companies that new supply-side investments will not be approved unless all lower cost DSM and/or interruptible service options have been explored and documented. Other parties agreed and argued that both Enbridge and Union should be required to do a better job…
>
> In light of the evidence presented, the Board concludes that further examination of integrated resource planning for gas utilities is warranted. The evidence in this proceeding demonstrates that the following issues should be examined:
> - The potential for targeted DSM and alternative rate designs to reduce peak demand
> - The role of interruptible loads in system planning
> - Risk assessment in system planning, including project prioritization and option comparison
> - Shareholder incentives.[15]

In the 2014 DSM Framework decision, the Board again directed Enbridge to conduct IRP and develop a consistent IRP methodology:

> As part of all applications for leave to construct future infrastructure projects, the gas utilities must provide evidence of how DSM has been considered as an alternative at the preliminary stage of project development.
>
> In order for the gas utilities to fully assess future distribution and transmission system needs, and to appropriately serve their customers in the most reliable and

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[12] E.g. EBO 169-III*, Report of the Board on the Demand-Side Management Aspects of Gas Integrated Resource Planning*, July 23, 1993, pp. 1-4; Ontario Energy Board, *Decision in EB-2012-0451/0433, January 30, 2014*, p. 46-47 (GTA Pipeline) (link); Ontario Energy Board, *DSM Framework,* December 22, 2014, p. 35-36 (link); EB-2018-0097, Decision and Order, January 3, 2019, pp. 6-7 (Bathurst Reinforcement) (link); EB-2020-0192 (London Lines), OEB Decision and Order, January 28, 2021, p. 20 (link).

[13] EBO 169-III*, Report of the Board on the Demand-Side Management Aspects of Gas Integrated Resource Planning*, July 23, 1993 (link).

[14] Ontario Energy Board, *Decision in EB-2012-0451/0433, January 30, 2014*, p. 46-47 (GTA Pipeline) (link).

[15] *Ibid*.

> cost-effective manner, the Board is of the view that DSM should be considered when developing both regional and local infrastructure plans. …The Board expects the gas utilities to consider the role of DSM in reducing and/or deferring future infrastructure investments far enough in advance of the infrastructure replacement or upgrade so that DSM can reasonably be considered as a possible alternative. If a gas utility identifies DSM as a practical alternative to a future infrastructure investment project, it may apply to the Board for incremental funds to administer a specific DSM program in that area where a system constraint has been identified.
>
> The Board is also of the view that the gas utilities should each conduct a study, completed as soon as possible and no later than in time to inform the mid-term review of the DSM framework. The studies should be based on a consistent methodology to determine the appropriate role that DSM may serve in future system planning efforts. As part of the multi-year DSM plan applications, the gas utilities should include a preliminary scope of the study it plans to conduct and propose a preliminary transition plan that outlines how the gas utility plans to begin to include DSM as part of its future infrastructure planning efforts.[16]

In the 2016 DSM Plan decision, the OEB found that Enbridge's proposed next steps would cause "delay" and directed them to develop an IRP transition plan:

> The OEB agrees that a case study, as proposed by Enbridge, would assist in assessing the merits of a transition plan. However, the OEB is concerned that the time required to complete a case study would delay the utilities' infrastructure planning activities proposal and the transition plan would not be available in time for the mid-term review.
>
> The OEB directs Enbridge and Union to work jointly on the preparation of a proposed transition plan that outlines how to include DSM as part of future infrastructure planning activities. The utilities are to follow the outline prepared by Enbridge, and should consider the enhancements suggested by the intervenors and expert witnesses. The transition plan should be filed as part of the mid-term review.[17]

In the 2018 DSM Mid-Term Review decision, the OEB expressed concerns about the lack of progress on IRP and directed Enbridge to do better.

> Stakeholders indicated reservations in the usefulness of the transition plan provided by the natural gas utilities. The OEB agrees that although the progress made is at an early stage, the transition plan does not advance the understanding of the role and impact that energy conservation can play in deferring or avoiding capital projects. Currently, leave to construct applications do not include a description of the DSM alternatives considered to help avoid and/or defer the proposed capital project. The natural gas utilities should continue to develop rigorous protocols to include DSM as part of their internal capital planning

[16] Ontario Energy Board, *DSM Framework,* December 22, 2014, p. 35-36 (link).
[17] EB-2015-0029/0049, *Decision and Order*, January 20, 2016 (2015-2020 DSM Plans), p. 84 (link).

> process. This should include a comprehensive evaluation of conservation and energy efficiency considered as an alternative to reduce or defer infrastructure investments as part of all leave to construct applications.[18]

In the 2019 Bathurst Reinforcement decision, the OEB again directed Enbridge "to provide sufficient and timely evidence of how DSM has been considered as an alternative at the preliminary stage of project development."[19] It also warned Enbridge that it "faces the risk that future application will be deemed incomplete."[20]

In the 2021 London Lines decision, the OEB directed Enbridge to do better once again and to conduct an "in-depth quantitative and qualitative analyses of alternatives".[21] In particular, the OEB said:

> However, despite the OEB approval of the application for leave to construct this Project, the OEB agrees with Environmental Defence that Enbridge Gas has an obligation to conduct a more rigorous Integrated Resource Planning assessment at the preliminary stage of projects development in future cases. As OEB staff also notes the failure to present detailed analyses makes it unlikely that Enbridge Gas would select an alternative including DSM or other non-build project option. The OEB acknowledges that more direction is likely to be provided to Enbridge Gas in future leave to construct projects as part of the ongoing IRP proceeding. In the interim, however, the OEB believes that all parties would be assisted if Enbridge Gas would, in the future, undertake in-depth quantitative and qualitative analyses of alternatives that specifically include the impacts of DSM programs on the need for, or project design of facilities for which Enbridge Gas has applied for leave to construct.[22]

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[18] EB-2017-0127/0128, *Report of the Ontario Energy Board, Mid-Term Review of the Demand Side Management (DSM) Framework for Natural Gas Distributors (2015-2020)*, November 29, 2018, p. 20-21 (link).
[19] EB-2018-0097, Decision and Order, January 3, 2019, pp. 6-7 (link).
[20] *Ibid*.
[21] EB-2020-0192 (London Lines), OEB Decision and Order, January 28, 2021, p. 20 (link).
[22] EB-2020-0192 (London Lines), OEB Decision and Order, January 28, 2021, p. 20 (link).