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August 8, 2023

**EB-2022-0249 – Hidden Valley Community Expansion Project Leave to Construct
Pollution Probe Submission**

Dear Ms. Marconi:

In accordance with Procedural Order No. 4 for the above noted proceeding, please find attached Pollution Probe's Submissions.

Respectfully submitted on behalf of Pollution Probe.

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ONTARIO ENERGY BOARD

**Enbridge Gas Inc.
Hidden Valley Community Expansion
Leave to Construct**

POLLUTION PROBE SUBMISSION

August 8, 2023

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Background and Introduction

Enbridge Gas Inc. (Enbridge) has applied to the Ontario Energy Board (OEB) under sections 90 and 97 of the Ontario Energy Board Act, 1998, for an order granting leave to construct for approximately 4 kilometers of natural gas pipeline and associated facilities to serve potential customers in Hidden Valley in the Town of Huntsville and District of Muskoka. Enbridge's updated evidence¹ indicates that the project is needed to supply natural gas to approximately 130 customers in Hidden Valley, within the Town of Huntsville and District of Muskoka. Enbridge has also applied to the OEB for approval of the form of land-use agreements it offers to landowners for the routing and construction of the project.

The project was selected to be eligible to receive funding assistance as part of Phase 2 of the Government of Ontario's Natural Gas Expansion Program (NGEP), which provides financial support to help utilities expand natural gas distribution into communities that are not currently connected to the natural gas system. Per NGEP requirements, the applicable NGEP projects require OEB review and consideration through a Leave to Construct application process. This is meant to ensure the review and consideration of relevant issues rather than an automatic approval to proceed with such an expansion project. Leave to Construct review per the generic Issues List includes evaluation for likelihood to meet all EBO 188 requirements as well as other public interest issues such as environmental and socio-economic impact assessment and mitigation.

The project as filed is a modification (e.g. customer estimate and cost) from Enbridge's NGEP project proposal in EB-2019-0255². Additionally, on May 8, 2023 Enbridge filed updated evidence adjusting core project information such as the number of customers estimated to be served, the project estimated costs and project routing.

Enbridge filed one set of Argument-in-Chief for all three expansion projects currently being considered by the OEB³. There are similarities between the projects and there are also distinct differences between the projects that are relevant to OEB Leave to Construct consideration. Each project should be considered based on its own individual facts and situation. It is also possible for the OEB to approve, deny or place different considerations on each project relevant to their individual characteristics. Therefore, Pollution Probe has prepared and filed individual submissions for each proceeding, replicating the elements that are common.

¹ Filed May 8, 2023 and updates also included in Exhibit I.ED.16

² Updated Exhibit E Tab 1 Schedule 1 Page 2 of 5 Plus Attachments

³ EB-2022-0156 (Selwyn Project), EB-2022-0248 (Mohawks of the Bay of Quinte Project), EB-2022-0249 (Hidden Valley Project)

In accordance with Procedural Order No. 4, the following is the written submission of Pollution Probe.

Options and High Level Recommendations

This section provides a high-level summary of the recommended options for consideration. Additional details and recommendations are included in this submission, but Pollution Probe thought it may be helpful to the OEB to provide this section first.

Based on the details highlighted in this submission it is clear that the application and evidence provided in this proceeding are not of sufficient detail or quality to support the project as filed, including a lack of supporting evidence to provide comfort that the project will meet the OEB's EBO 188 required Profitability Index (PI) = 1.0 or greater⁴. Particularly given that planning for this project has been underway for many years (even prior to 2020), it is reasonable to expect that the level of information to support this Leave to Construct application would be more comprehensive and complete. Corrections to significant evidence errors continued as late as May 2023 and residual issues remain. Perhaps, Enbridge believes that a lower level of rigour is acceptable for projects where NGEF grant funding is accessible.

OEB approval of this project without specific conditions and related language could be interpreted by Enbridge that the new 'low bar' set by this application is now a benchmark that is acceptable for the future. Pollution Probe encourages the OEB to not dilute the level of rigour required in Leave to Construct applications (in perception or reality). The Energy Transition and related requirements set by the OEB have been modernizing over time to meet the needs for Ontario energy consumers and any steps backwards would be counterproductive.

An inadequate level of planning, stakeholder engagement and documented assumption support for projects is a reason why performance of recent expansion projects have not actually performed in alignment with expectations⁵. The economic risks for the OEB and rate payers related to an expansion project are particularly elevated when a project barely meets a PI=1.0⁶ leaving no safety factor should the costs be higher or the revenue (including attachments, volumes and SES collection from real customers over 40 years) be lower. When there is no safety factor and the risks are high, it is prudent to ensure that project assumptions are supported by robust (community specific) information, comprehensive stakeholder engagement and more reliable survey data that ensures consumers have the information needed to make an informed decision on their

⁴ The initial NGEF application was to support a project to meet a PI=1.0 to avoid additional cross subsidization.

⁵ Actual Project PI's have been as low as 0.47 when forecasted by Enbridge in evidence to meet or exceed 1.0 – See B-2022-0200 Exhibit JT3.16 Table 1 for a short summary.

⁶ Enbridge's application is predicated on meeting this economic threshold.

likelihood to attach to natural gas and stay on natural gas over the duration of the project (i.e. 40 years). Enbridge has confirmed that when Energy Transition elements and declining average use are properly included in a project analysis, it reduces actual project PI below 1.0⁷. This is logical and pertinent to this project.

The OEB should consider two options to mitigate the issues outlined in this submission. The options are:

Option 1

The OEB could decline Leave to Construct approval for the project on the basis that the evidence is insufficient to validate the economic assumptions and require that should Enbridge refile for project approval to serve this community in the future require that Enbridge:

- Undertake a detailed survey that increases the reliability of the estimate for which customers will actually connect to natural gas in order to support a PI=1.0 or greater over the asset time horizon (e.g. 40 years under current EBO 188 requirements unless otherwise updated by the OEB⁸). Enbridge should provide more robust information⁹ including questions clearly identifying whether customers would consider to leave the natural gas system for other non-gas technologies in the future (i.e. within 40 years of attaching to the natural gas system or when the gas equipment needs to be replaced in an average of 18 years¹⁰) if they were more economical options available. An estimate for lost customers should also be more appropriately accounted for in the PI calculation.
- Provide information (via handouts, electronic communication and/or community education sessions) to consumers in the community on the full range of incentives and options available under the Greener Homes Grant program (or other equivalent programs available), relevant to all energy savings measures and fuel types. Enbridge is encouraged to work with all relevant partners in developing and delivering this information. Providing this information proactively to customers is intended to ensure that customers have considered relevant information when indicating their interest to attach to the gas system and the likelihood of staying on the system for a minimum of 40 years. It is unfortunate that information Enbridge provided to customers do not include more modern cost-effective options such as

⁷ Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 10, Page 182 lines 13 - 21 and Page 183 lines 16-21

⁸ A decrease to the EBO 188 timeline may be considered in EB-2022-0200 or a related proceeding.

⁹ E.g. detailed literature on the full range of options under the Greener Homes Grant Program.

¹⁰ Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 6, Page 43 lines 18 – 27; and Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 11, Page 18 lines 9-15.

cold climate heat pumps¹¹. This is not just relevant to this project, but a chronic systematic issue where natural gas is selectively promoted over all other more cost-effective options¹².

- Provide information (via handouts, electronic communication and/or community education sessions) to all consumers in the community on the incentives and options available under the current OEB approved DSM programs¹³ (current OEB approved programs are a proxy for future programs, even though the OEB has indicated that incremental DSM results will be required post 2025) so they can adequately plan energy efficient options and related building improvements if they elect to become a natural gas customer. Enbridge is encouraged to work with all relevant partners in developing and delivering this information.

Option 2

Grant Leave to construct approval for the project and require Enbridge to retain the risk should the project PI be less than 1.0 (i.e. project costs exceed those placed in evidence by Enbridge and/or revenues are less than those indicated in Enbridge's evidence)¹⁴. This would apply to the entire project costs (including Project Costs & Ancillary Facilities) during the 10 year rate stability period and for the remaining amortization period of the assets. Enbridge is the only stakeholder that can ensure that the estimates it includes in its evidence are realistic and Enbridge is the only stakeholder that can implement mitigation measures during project delivery as required (e.g. greater customer outreach and engagement, mitigate cost overruns, etc.) if Enbridge current evidence does not adequately represent reality.

Require Enbridge to proactively communicate to potential customers the options and incentives available through the Greener Homes Grant Program, DSM and other related programs as outline in Option 1. Enbridge should provide a copy of all materials and outreach activities related to this in the Post-Construction Report for the project. Similarly, require Enbridge to proactively communicate to all potential customers the incentives available for DSM programs as noted in Option 1.

¹¹ As a comparator in a colder part of Ontario, current technology has even been able to endure the most recent Ottawa record winter (HDD) without requiring use of any back-up heating.

¹² Examples include: EB-2022-0200 Final Transcript EB-2022-0200 Vol 2 page 75 line 25 to page 76 line 12.

¹³ Enbridge previously agreed to do this for community expansion projects and failed to meet that commitment during consultation for this project.

¹⁴ This condition is necessary in this proceeding since Enbridge will not be coming back for any additional OEB project approvals if Leave to Construct approval is granted in this proceeding.

Proceeding Process

The OEB proceeded with a written proceeding to consider this application, in alignment with the request from Enbridge. Written proceedings have often been leveraged historically for Leave to Construct applications that are small in scale, simple, straight-forward and do not include high public concern or other significant factors. This project (and other similar system expansion projects being considered¹⁵ in parallel) has illustrated that even smaller Leave to Construct applications may no longer be simple or straight-forward due to decreased economic safety factors, Energy Transition issues and the risks over the project lifetime. Difficult issues identified in this proceeding include accuracy of forecasted attachment rates, retention of customers over the 40-year revenue horizon modelled¹⁶, and the treatment of stranded assets (in part or whole) as a result of approving the project in this proceeding. Unlike in decades past, consumers have access to more cost-effective heating and cooling options and it can no longer be assumed that natural gas is a default choice. Recently the uptake in Ontario for heat pumps alone has exceeded the traditional gas furnace choice. These issue and risks are further compounded when projects do not exceed a PI of 1.0 with any safety margin, requiring greater scrutiny on the assumptions in the application.

As the proceeding unfolded it became clear that the evidentiary record had material gaps that may have been easier to resolve through an oral hearing. Hindsight is always 20/20, but this is a consideration that the OEB could assess for future Leave to Construct applications which could impact the process chosen and the need to leverage more robust information and processes. It appears that the OEB recognizes this paradigm shift (including the specific questions outlined below) and may be putting processes in place¹⁷ to ensure that expansion (and other projects requiring Leave to Construct approval) are prudent and future proof, avoiding likely uneconomic projects and stranded assets in the future. Consideration of these factors before a project is approved and built is the only time they can be considered and have a real impact. After a project is built, it is too late.

¹⁵ The three system expansion projects being considered in parallel are EB-2022-0156/0248/0249.

¹⁶ Plus the need to reassess the EBO 188 40 year modelling horizon as specifically flagged by the OEB in EB-2022-0200.

¹⁷ Including establishing EB-2023-0190

Specific OEB Questions

The OEB indicated that it would like all parties to address the following questions in their submissions:

- In light of section 36.2 of the OEB Act and O. Reg 24/19, what factors must the OEB consider in determining the public interest pursuant to section 96(1)?
- What is the expected impact of take up of other forms of energy delivery to the customers that will be provided access to natural gas through the completion of the project?
- What is the appropriate treatment of the Project after the rate stability period has concluded? Please include treatment if a shortfall of expected Project revenue has occurred.

Although information relevant to these questions is included throughout this submission, a consolidated summary response to these questions is included in this section. Pollution Probe acknowledges that the Energy Transition continues to accelerate in Ontario and it would make sense for the OEB to reconsider these questions (and other related issues) from time to time based on best available information in regular increments (no longer than rebasing periods or as significant information becomes available. The OEB is considering similar issues related to public interest of capital investments now and over the next few years in the current Enbridge Rebasing application¹⁸. Pollution Probe did not attempt to replicate the full range of factors in this submission, but it is safe to say that there is a broad range of relevant factors such as those outlined below.

1. In light of section 36.2 of the OEB Act and O. Reg 24/19, what factors must the OEB consider in determining the public interest pursuant to section 96(1)?

Pollution Probe suggests that the flexibility that the OEB has in considering a broad range of public interest factors for other proceedings is adequate to be applied for expansion project such as this. Justification for capital projects (especially those that require 40+ years to recover the related costs from rate payers) requires a robust and defensible assessment of likely costs and revenues. The revenue side of the equation include issues related to stranded assets, but also the likelihood that the revenue forecast will perform as predicted. Some of these issues have also been identified in the Rebasing proceeding include declining average use (including DSM) and the likelihood of customers to leave the system for more cost-effective options¹⁹. There is no exclusions for OEB review and approvals for projects considered under 36.2 of the OEB

¹⁸ EB-2022-0200.

¹⁹ Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 10, Page 182 lines 3 – 21.

Act and O. Reg 24/19 and therefore public interest must include all reasonable factors available at the time of the assessment.

Under NGEF, maximum grant amounts are identified in order to provide maximum incremental support for natural gas expansion projects, but it is clear that the access to grant funding does not guarantee that the project will be feasible or meet other OEB requirements. A safeguard included in the process is that a gas utility must submit projects for OEB review and consideration such as Leave to Construct, if applicable. The OEB review process considers the public interest (including economic testing), prudence (based on what is known or ought to be known at the time of an application) and other OEB safeguards related to identifying and mitigating impacts are covered in the OEB Environmental Guidelines for Hydrocarbon Projects and Facilities in Ontario.

2. What is the expected impact of take up of other forms of energy delivery to the customers that will be provided access to natural gas through the completion of the project?

There is insufficient evidence in this application to accurately estimate expected gas customer attachments over the forecast period (i.e. 40 years) or which customers are likely to remain on the system in the future. As outlined in this submission, the estimates in the application are over-estimates of what is really likely to occur. The over-estimation of attachments resulting in actual project results much less than the expected PI has become a trend lately. There was no meaningful community engagement and education on available incentives and energy options during planning for this project. Survey results²⁰ for this community indicate that 31% of the 61 consumers surveyed indicated that they are not considering to convert to natural gas. The survey identified that other energy options are available and those options (e.g. heat pumps) have already started to be implemented locally.

This Enbridge survey result was a passive²¹ survey based on no consumer education on more efficient energy options available and the incentives that support them. The percentage of customers choosing a different energy option than natural gas will logically increase once the consumers decide to make an equipment change and actively explore energy options after educating themselves on option available and the incentives available. This follows the fundamental principle Enbridge included in its application that customers will choose the best option once they have adequate information, and of course this actually occurs after a consumer has investigated those

²⁰ Exhibit B, Tab 1, Schedule 1, Attachment 3

²¹ A survey response before a consumer has actively decided to replace equipment and undertake logical research into options, is very different than what consumers will actually do. This is illustrated with recent expansion projects with an actual PI of below 0.5, when the project survey suggested that it would be 1 or higher. Additional details and references provided below.

options adequately (at the time of informed choice rather than completing a passive survey that is not linked to any commitment). A passive survey that does not ensure that consumers are adequately informed, will always have a skewed and unreliable outcome.

Additionally, the information used by Enbridge for comparison and illustration does not include modern cost-effective options and incorrectly assumes that if a consumer is replacing heating equipment over the next 40 years, its baseline options only include electric baseboard, oil or propane²². Enbridge's own Net Zero study conducted by Guidehouse forecasted that non-gas heating²³ will be 40%-85%²⁴ by 2050, which is a shorter time horizon to migrate from gas than the project horizon of this project²⁵.

Pollution Probe understands from industry providers that in Ontario heat pumps have recently outpaced traditional furnace installations which suggests that the survey estimate of 31% is likely greater than 50% for consumers choosing other forms of energy delivery when making a replacement choice today. This trend is accelerating with support from programs like Greener Homes Grant Program and increased support from HVAC companies²⁶. Pollution Probe is not suggesting that consumers should not consider natural gas options when making decisions today, but considering only information biased towards a natural gas solutions is not realistic or representative of the real cost-effective options available today or what a consumer will choose at the actual point of making a decision.

3. What is the appropriate treatment of the Project after the rate stability period has concluded? Please include treatment if a shortfall of expected Project revenue has occurred.

Enbridge should retain the risk if the actual project is less economic than provided in its evidence (i.e. project costs exceed those placed in evidence by Enbridge and/or revenues are less than those indicated in Enbridge's evidence). There is no requirement for the OEB to transfer that risk to rate payers. This would apply to the entire project costs (including Project Costs & Ancillary Facilities) during the 10 year rate stability period and for the remaining amortization period of the assets. Prior to approval and construction of a project is the most prudent time to consider if the feasibility is accurate and if it is likely to result in stranded assets.

²² Updated Exhibit B Tab 1 Schedule 1, Table 1.

²³ Includes electricity and heat pumps only for range provided. If other options were added, it would increase the percentages.

²⁴ EB-2022-0200 Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 2, page 17 lines 20-25.

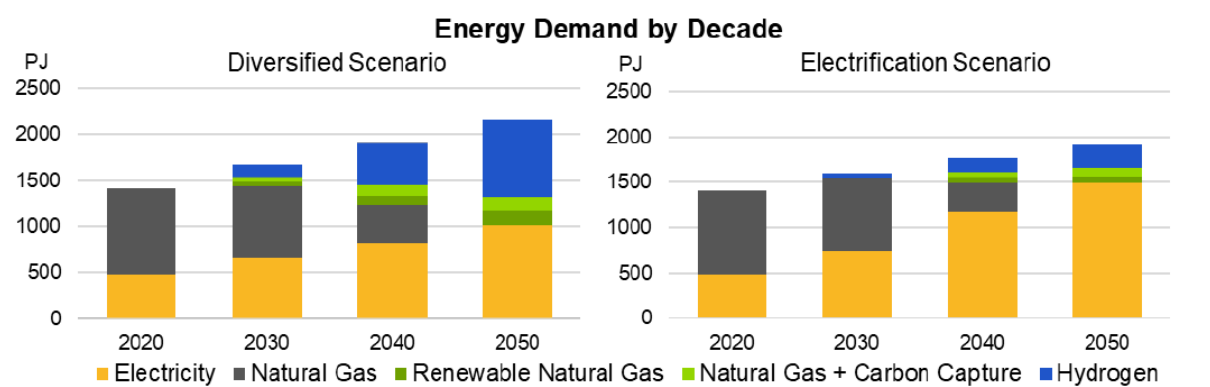
²⁵ 40 years would be 2064

²⁶ For just one of many examples, attached in Appendix A is a recent sample ASHP advertisement highlighting incentives and savings.

Enbridge is the only stakeholder that can ensure that the estimates it included in its evidence are realistic or implement mitigation measures (e.g. greater customer outreach and engagement) should Enbridge evidence not adequately represent reality. The responsibility is solely on Enbridge to undertake sufficient project planning and analysis to ensure that the project forecast and evidence aligns with what will occur if the project is approved and constructed. If Enbridge is not confident in the forecast, only Enbridge has the ability to enhance attachment activities or mitigate uneconomic portions of the project.

This approach would also protect rate payers from the negative impact of stranded assets. In addition to the risks of stranded assets already understood and highlighted in previous proceedings, Enbridge recently commissions a study to identify a Diversified Scenario to provide a best-case scenario for natural gas infrastructure between now and 2050 given the Energy Transition to Net Zero emissions pathway in Ontario. If this project was commissioned in 2024, it would require collection from rate payers out to 2064 based on a 40 year amortization period²⁷ and the proposed System Expansion Surcharge proposed for this project. Even under Enbridge's most optimistic Diversified Scenario all customers except potentially the largest industrial customer (if they can install carbon capture and sequestration or CCS) will no longer be using natural gas before the project is fully recovered.

Figure 1: Pathways to Net Zero Emissions for Ontario ²⁸



²⁷ Longer if Enbridge amortizes over 65 years as proposed in EB-2022-0200.

²⁸ EB-2022-0200 Exhibit 1.10.5.2_Pathways to Net-Zero Emissions for Ontario_BLACKLINE_20230421

Project Need, Timing and Costs

Enbridge indicates that “the Project is composed of approximately 4 km of NPS 2-inch Polyethylene (“PE”) natural gas distribution pipeline and ancillary facilities including customer services”²⁹. However, it is important to note that although the application included information and costs on Ancillary Facilities, Enbridge has suggested that the Ancillary Facilities are not part of the project for the Leave to Construct approval requested³⁰.

The total cost for the proposed project is estimated to be \$3.3 million³¹, of which approximately \$2.0 million is attributed to the Project (pipeline facilities for which the Company is seeking leave to construct via the current Application), and approximately \$1.4 million is attributed to Ancillary Facilities for which the Company is not seeking leave to construct.

This project would not operate without the Ancillary Facilities and they were included in the EBO 188 financial analysis, so it is recommended that all project costs be included in the scope of the Leave to Construct application. It is unclear why Enbridge would make this request to the OEB given that the Ancillary Facilities would not be built in isolation of the project.

Enbridge updated forecasted project costs in May 2023 and based on the new evidence the cost breakdown is per the table below³².

Table 1: Estimated Project Costs (\$CAD)

Item No.	Description	Pipeline Costs	Ancillary Costs
1.0	Material	17,345	46,049
2.0	Labour and Construction	1,092,429	1,141,339
3.0	Outside Services	517,653	24,670
4.0	Land, Permits, Approvals and Consultations	8,340	0
5.0	Contingency	176,129	112,520
6.0	Sub-Total	1,811,896	1,324,578
7.0	Interest During Construction	17,374	1,881
8.0	Direct Overheads	133,318	50,341
9.0	Total Project Costs	1,962,588	1,376,800

The original evidence filed estimated the portion of costs related to the Pipeline Costs at \$2,148,790. The new costs are below the Leave to Construct threshold of \$2 million if the OEB were only to consider Project Costs, but if the OEB considers the whole

²⁹ Updated Exhibit B Tab 1 Schedule 1 Page 1, paragraph 2

³⁰ Updated Exhibit E Tab 1 Schedule 1 Page 1, paragraph 1

³¹ Updated Exhibit E Tab 1 Schedule 1 Page 1

³² Information per Table 1 in Updated Exhibit E Tab 1 Schedule 1, Figure ES-2.

projects costs (i.e. Pipeline Costs and the Ancillary Costs), it places the project above the \$2 million threshold. If Enbridge does not consider the Ancillary Costs in scope for Leave to Construct purposes, it is unclear if Enbridge could proceed with building the project even of the OEB rejected Leave to Construct approval. Pollution Probe recommends that Leave to Construct approval apply to all the project components and related costs and not just the Pipeline Costs.

As late as May 2023 Enbridge was still counting buildings in the community resulting in an update to its evidence and customer forecast. There are several risk factors associated with this project that could result in the project being less economical than forecasted in Enbridge's Economic Feasibility. For example, the Environmental Assessment correctly identified that bedrock is likely to be encountered during construction due to the prominence of shallow bedrock in the project area³³. Rock excavation will have a significant impact on construction costs for this project.

Enbridge provided some incremental evidence related to heat pumps in the form of a cursory HVAC survey and a report from Guidehouse. This was done in an attempt to bridge a gap in the application which did not adequately consider consumer choice and energy options in the community proposed to be served. The information provided by Enbridge was 'too little too late' and not of the completeness or quality that is expected for such an application. Enbridge annual costs comparisons in its public consultation materials and evidence included older fuel technologies (e.g. oil, propane or baseboard electric) which are misleading and mostly irrelevant compared to more modern choices for equipment³⁴. Overall, Enbridge's incremental evidence was not very helpful in laying out the objective information consumers will need to consider when they select a new heating system. It is surprising that Enbridge does not have better information given it is the Ontario delivery agent for the Greener Homes Grant Program which promotes more modern low carbon energy solutions.

Based on real performance there has been a wide variation in more recent expansion projects actual results compared to what was put in evidence before the OEB to support the expansion project. For example, the Profitability Index of most recent expansion projects significantly varies from the EBO 188 requirement of 1.0 minimum to as low as 0.47³⁵. Enbridge also confirmed that Energy Transition, declining average use and other factors affecting customers decreases the economics of a project below what is expected³⁶. Based on the issues identified in recent applications including this one, it is

³³ EGI_F-1-1_Attachment 1_Redacted_20221220, Table 5.1

³⁴ This marketing material for natural gas is used to make natural gas appear as the most costs effective option. This was confirmed by Enbridge in EB-2022-0200 K2.1 GEC_Compendium_20230711, Page 37 and EB-2022-0200 Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 2, Page 75 lines 23 – Page 76 line 12.

³⁵ EB-2022-0200 Exhibit JT3.16 Table 1.

³⁶ Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 10, Page 182 lines 13 - 21 and Page 183 lines 16-21

not surprising that expansion project results are varying significantly from the results that were initially forecasted. Assessing projects, customer options/decisions in a more appropriate and robust manner would better support the fundamental goal of NGEP (i.e. provide natural gas where consumers actually want it and where the attachment profile plus revenues including grants meets the OEB requirements) while validating customer choice for energy technologies and ensuring expansion projects are done in a more cost-effective manner. As noted earlier, the risks related to expansion projects that only meet a PI=1.0 is significantly greater than decades ago when many projects typically had a PI of 2 or greater, helping to mitigate some of these risks. Times have changed.

As noted above the proposed project will serve a portion of customers in the community of Hidden Valley. In order to meet the minimum economic threshold under EBO 188, the project includes a rate payer funded project grant of \$1,899,859 and a proposed System Expansion Surcharge (SES) to be applied for a 40-year timeframe, estimated at a PI = 1³⁷. The cost estimate set out in the application differs from the amount estimated in the Company's original project proposal to the Government of Ontario (2019/2020) for funding under Phase 2 of the NGEP by approximately \$0.5 million (EB-2019-0255)³⁸.

Enbridge Project Proposal Costs to Consumers

Below is a summary of the project cost per customer based on the Enbridge information. The summary table is a:

- Simple incremental rate payer cost related to proposed project
- Does not include Enbridge return on capital or end of life abandonment costs
- Not including customer renovation or equipment costs
- Does not include annual energy operational costs

Project Initial Capital Cost ³⁹ per customer	\$25,687 ⁴⁰
NPV of O&M Cost (gas) per customer	\$5,538 ⁴¹
NPV of other expenses per customer	\$7,407 ⁴²
Initial Project Cost per customer	\$38, 632⁴³

³⁷ Ref: \$2,177,000-\$1,571,000=\$606,000 per Exhibit E Tab 1 Schedule 1 Attachment 1

³⁸ Updated Exhibit E Tab 1 Schedule 1 Page 2 of 5 Plus Attachments

³⁹ Excludes future capital costs and annual operating costs

⁴⁰ \$3,339,388 / 130 customers = \$25,687. Higher if estimated attachments are not achieved.

⁴¹ \$720,000 / 130 = \$5,538 per Exhibit E Tab 1 Schedule 1 Attachment 2

⁴² Sum of tax amounts in Exhibit E Tab 1 Schedule 1 Attachment 2. \$963,000 / 130 = \$7,407

⁴³ Would be higher if the elements listed above were included.

A quick estimate of annual savings for a heat pump against the natural gas alternative is summarized below.

Cost element	Estimated Annual
Average ASHP Savings over Natural Gas in Ontario ⁴⁴	\$840
Avoided Enbridge Customer Charge (estimated at \$50/month ⁴⁵ plus including HST)	\$678
Total Annual Savings	\$1440

The application filed provided energy comparisons, but the information used by Enbridge for comparison and illustration does not include modern options and incorrectly assumes that if a consumer is replacing heating equipment over the next 40 years, its baseline options would only be electric baseboard, oil or propane⁴⁶. Clearly not the case. If a customer makes a decision today or in the future to install a heating system, the best options were not included in the marketing materials provided by Enbridge. These options should include (at the very least) cold climate heat pumps with a note on the additional savings achieved for air-conditioning and the incentives available to Ontario energy consumers (e.g. Greener Homes Grants). As noted above, the cost to install more cost-effective options with lower emissions is less than a natural gas alternative (even the highest estimate provided by Guidehouse and Enbridge⁴⁷) and the energy savings are superior.

Providing this information to consumers in an open and transparent manner is recommended for expansion projects. Part of the role of the OEB is to ensure that consumers are protected from misleading information and have the information to make informed decisions.

Amortization Period

In this application, Enbridge has proposed an amortization period of 40 years⁴⁸, out to 2064. This exceeds the likely useful life of the proposed assets. Pollution Probe has previously highlighted the risks and challenges with amortizing new pipelines over four decades (or longer in some cases) when natural gas use is expected to decline over the

⁴⁴ Objective third part calculator estimate of ASHP savings compared to natural gas in Ontario – EB-2022-0200 K2.2, Page 251.

⁴⁵ EB-2022-0200 Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 2, page 22 lines 13-14.

⁴⁶ Updated Exhibit B Tab 1 Schedule 1, Table 1.

⁴⁷ The Enbridge survey of X HVAC companies provided a range for a Cold Climate ASHP between \$7,510 (for an easy installation) to \$31,000 (for a complex installation, assumable requiring multiple ASHPs). The Hydro One pilot program included 79 quotes with an average costs (large to small) of \$11,372.82.

⁴⁸ Exhibit E Tab 1 Schedule 1 Attachment 1

same period. When the OEB approves a Leave to Construct, it must also consider if the expected useful life of the pipeline is supported by the evidence provided. The onus is on the applicant to support that the project assumptions are reasonable, including amortization period. An amortization period for gas assets in this community in the range of 15 years⁴⁹ would be more appropriate. Pollution Probe also highlights the challenges with recovering a surcharge from customers for 40 years, if there are not likely to be any customers left on gas in this community by 2064. Enbridge has not adequately considered these issues in the application and the future impacts to rate payers. It is likely the most vulnerable customers will be the last on the pipeline and carrying any stranded costs from this project, plus higher annual energy costs for the entire period. Having Enbridge retain the risk for the shortfall in project revenue protects rate payers from this inevitable issue.

Demand Side Management Consideration

Enbridge indicates that it “has promoted and will continue to promote the efficient use of natural gas, current offers, and incentives to all residents and businesses in the Project and surrounding areas”⁵⁰. DSM is the OEB approved portfolio of programs available to all existing and future natural gas customers in Ontario. New gas burning equipment can only function after a service is installed, so therefore any consumer that becomes a customer of Enbridge is entitled to take full advantage of the OEB approved DSM programs before installing equipment. A key principle for DSM is to minimize “lost opportunities”, particularly at the time when a customer is considering a renovation or change of heating equipment⁵¹. This situation applies directly to this community expansion project.

Providing DSM information and options to potential community expansion customers has been a chronic challenge for Enbridge and the gap remains⁵². Enbridge previously indicated that it believes that it needs to do better when expanding to new communities and committed to “ensuring that when we [Enbridge] go out to communities, as part of trying to attract them as new customers, that they understand the conservation service that we offer and that that would be available to them at that point in time. So when they do their conversion we don't lose that opportunity”⁵³. The complimentary Greener Homes Grant Program further increases the need for this to occur. Unfortunately, Enbridge has not marketed DSM or other energy efficiency opportunities to potential customers of NGEP Community Expansion projects including Hidden Valley⁵⁴. This is a

⁴⁹ EB-2022-0200 GEC-ED_Ex M9_Neme_Evidence_updated_20230530, Page 43.

⁵⁰ Exhibit B, Tab 1, Schedule 1, Page 5.

⁵¹ Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 84, lines 26-27.

⁵² Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 86 line 23 to page 87 lines 2-5.

⁵³ Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 87 line 25 to page 88 line 2.

⁵⁴ Exhibit I.PP.8

chronic issue that Enbridge has repeatedly committed to the OEB and stakeholders to fix⁵⁵. Nothing has been done to remedy the ongoing problem and direct OEB intervention for expansion projects is needed.

Despite making a commitment to the OEB and stakeholders in previous proceeding to share information on energy efficiency and costs savings opportunities during all expansion project, Enbridge has failed to do so for this expansion project. Enbridge recently indicated that it does not have a responsibility to provide relevant information to new customers and communities and that "Enbridge Gas served new or upgraded natural gas service requests from customers on the understanding that these customers are sufficiently informed about the available energy and technology solutions and that they have chosen the alternative that best suits their needs"⁵⁶. This is clearly not the case when Enbridge is only providing information biased in favour of natural gas. This is a monopolistic approach that is counter to the public interest. Customers depend on their utility to provide objective information and also that the OEB will protect consumers from such monopolistic behaviors.

The OEB has indicated previously and consistently that it expects DSM analysis and opportunities to be applied more effectively, particularly for Leave to Construct projects⁵⁷. These lost opportunities reduce DSM results at a time when the OEB's recent DSM Decision stated that more DSM results are expected⁵⁸. DSM information and program materials are supposed to be made available to all potential customers in the community and local contractors should be requested to also share information on the full range of options including reducing energy costs and related emissions through undertaking energy efficient decisions during the renovation or major equipment change.

Integrated Resource Planning Considerations

Integrated Resource Planning (IRP) at a shallow glance may seem counterintuitive for a community expansion project, but at a more detailed level it is actually complimentary to all proposed pipeline projects, including system expansion projects. IRP is not only an industry best practice approach to delay or avoid capital assets such as pipelines and ancillary facilities, but is also a tool to properly assess options to serve customers in the most cost-efficient manner leading to lower rate payers costs and reduced risk of stranded assets (e.g. detailed surveys enables geotargeting to serve customers that are more likely to adopt gas and avoid pipelines that are unused). This leads to an

⁵⁵ Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 85 line 20 to Page 88 line 12.

⁵⁶ EB-2022-0200 2.6-Staff-81, part (c)

⁵⁷ E.g. EB-2020-0192 Decision Page 13 and IR responses to OEB staff interrogatory 13 a) and Pollution Probe interrogatory 10

⁵⁸ EB-2021-0002 Decision

optimized and cost-effective design based on where natural gas will actually be used, rather than a costly shotgun approach. No IRP analysis was conducted on this project. In cases where pipeline assets are needed to serve a community, IRP analysis and options can help ensure that pipelines, services and ancillary facilities are catered to the exact customers and related demand for those facilities, avoiding wasted capital. Modern solutions for gas expansion provide natural gas to those that need it and alternative options to consumers where gas pipelines do not pass the economic payback threshold. This is an even more important tool for projects that do not have a robust economic feasibility.

Proper energy planning requires detailed community engagement and consultation to understand what the energy needs and options are based on objective, open and unbiased information. None of this was done for this project. Relying on limited survey data and high-level assumptions that natural gas will automatically be the energy choice for customers is unrealistic.

Environmental and Socio-economic Impacts

There are numerous environmental and socio-economic issues related to the project. Enbridge indicates that the Project will be conducted in accordance with recommendations in the Environmental Report (ER). An Environmental Protection Plan ("EPP") was recommended to be developed for the Project prior to construction⁵⁹. In accordance with the ER, an EPP should incorporate recommended mitigation measures contained in the ER and those mitigation measures obtained from agency consultation for the environmental issues associated with the proposed works.

The Environmental Report identified shallow bedrock in the project area with a high likelihood of encountering bedrock⁶⁰. Also, most, if not all, of residences rely on private wells for domestic water supply uses. There are approximately 25 water wells in the Study Area, 9 of which are designed as domestic supply⁶¹. With proposed depth of the pipeline indicates that it is likely that bedrock will be encountered along the pipeline route resulting in the need for blasting, hoe ramming or other mechanical removal means. Encountering bedrock increases construction costs and net impacts to the community and natural environment. Blasting within 100 m of water wells also requires a detailed monitoring program which has not be conducted or costed in the application. Given the proposed timelines for the project, it will be difficult to get access to all well for third party testing prior to construction. It is recommended that well monitoring be

⁵⁹ EGI_F-1-1_Attachment 1_Redacted_20221220, Section 7.1

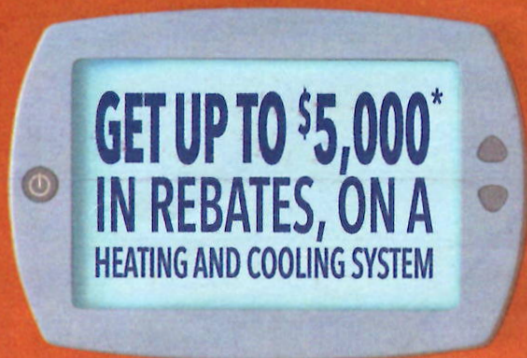
⁶⁰ EGI_F-1-1_Attachment 1_Redacted_20221220, Table 5.1

⁶¹ Ibid.

conducted for this project. Issues related to these well have the potential to further increase project costs.

Effective public consultation is a mandatory requirement for all projects requiring Leave to Construct approval. Overall consultation and community engagement for this project was not sufficient to provide members of the community the information they need to make informed energy decisions. At a minimum for this project it is expected that Enbridge should have provided information (via handouts, electronic communication and/or community education sessions) to consumers in the community on the incentives and options available under the Greener Homes Grant program (or other equivalent programs available), relevant to all energy savings measures and fuel types. Best practice would have been to also partner with IESO to ensure that relevant electricity conservation program information was provided by Enbridge at the same time.

Similarly, it is expected that Enbridge should have provided information (via handouts, electronic communication and/or community education sessions) to all consumers in the community on the incentives and options available under the OEB approved DSM programs so they can adequately plan energy efficient options and related building improvements if they elect to become a natural gas customer.



*Customers can receive a rebate of up to \$5,000 for qualifying systems. For more information go to: <https://www.nrcan.gc.ca/energy-efficiency/homes/canada-greener-homes-grant/23441>.

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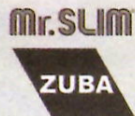
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