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April 2, 2024

EB-2023-0201 – Eganville Community Expansion Project Leave to Construct
Pollution Probe Submission

Dear Ms. Marconi:

In accordance with OEB direction, please find attached Pollution Probe's Submission pertaining to the above noted proceeding.

Respectfully submitted on behalf of Pollution Probe.

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EB-2023-0201

ONTARIO ENERGY BOARD

Enbridge Gas Inc.
Eganville Community Expansion
Leave to Construct

POLLUTION PROBE SUBMISSION

April 2, 2024

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Project Summary and Background

Enbridge Gas Inc. (Enbridge) 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 approximately 22 kilometres of natural gas pipeline and associated facilities in the Townships of Admaston/Bromley, North Algona Wilberforce and Bonnechere Valley. The proposed pipeline proposes to supply natural gas to approximately 723 new customers who currently do not have access to natural gas. Enbridge also applied to the OEB for approval of the form of land-use agreements it offers to landowners affected by the routing and construction of the project.

Enbridge Gas also requested that the OEB make the following orders pursuant to the Municipal Franchises Act:

- pursuant to s.8 of the Municipal Franchises Act, an Order granting a Certificate of Public Convenience and Necessity to construct works to supply natural gas in the Township of Bonnechere Valley;
- pursuant to s.9(3) of the Municipal Franchises Act, an Order approving the terms and conditions upon which, and the period for which, the Township of Bonnechere Valley is, by by-law, to grant Enbridge Gas the right to construct and operate works for the distribution, transmission and storage of natural gas within the Township of Bonnechere Valley and the right to extend and add to the works;
- pursuant to s.9(4) of the Municipal Franchises Act, an Order directing and declaring that the assent of the municipal electors of the Township of Bonnechere Valley is not necessary for the proposed franchise agreement by-law under the circumstances;
- pursuant to s.8 of the Municipal Franchises Act, an Order granting a Certificate of Public Convenience and Necessity to construct works to supply natural gas in the Township of North Algona Wilberforce;
- pursuant to s.9(3) of the Municipal Franchises Act, an Order approving the terms and conditions upon which, and the period for which, the Township of North Algona Wilberforce is, by by-law, to grant Enbridge Gas the right to construct and operate works for the distribution, transmission and storage of natural gas within the Township of North Algona Wilberforce and the right to extend and add to the works; and
- pursuant to s.9(4) of the Municipal Franchises Act, an Order directing and declaring that the assent of the municipal electors of the Township of North Algona Wilberforce is not necessary for the proposed franchise agreement by-law under the circumstances.

During the course of this proceeding several requests and submissions were made by parties which are largely summarized in the OEB's Decision and Procedural Order No. 2 dated February 29, 2024. The OEB determined that additional procedural steps or evidence is not required at this time and set a path for submissions by all parties. The OEB has acknowledged the importance of issues that relate to projects like this one, including Project economics, survey results, current consumer technology options included in the application and to community stakeholders, financial analysis/surveys and consumer information[1]. Therefore, Pollution Probe has included comments below on those issues based on information on the public record.

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, this NGEP project requires OEB review and consideration through a Leave to Construct application process. This process is meant to ensure the review and consideration of relevant issues and consideration of current factual information rather than an automatic approval to proceed with such an expansion project based on the dated information placed in the NGEP grant applications. The NGEP grant application for the Project was filed in response to an OEB Staff request[2]. It is recommended that Enbridge included the NGEP application when it files its original evidence for an NGEP project. Given the essential link to that document for an NGEP project, it is not reasonable to make an application to the OEB without included that essential information.

The application has assumed an NGEP Grant of $23.11 million is included in the economic analysis for the Project. However, O. Reg. 24/19: EXPANSION OF NATURAL GAS DISTRIBUTION SYSTEMS under Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Sched. B indicates that the NGEP grant is $26.17 million[3]. It is not clear why Enbridge has applied another value and no evidence has been provided to support the figure used in this application. In fact, Enbridge confirmed that the only confirmation it received that this Project could be eligible for NGEP grant funding was the reference in O. Reg. 24/19[4]. It appears that Enbridge prorated the NGEP grant amount to recalculate the Project with an estimated PI=1.0. If the PI does not equal 1.0, the NGEP

[1] As outlined during this proceeding, other recent expansion proceedings and also other OEB direction for issues of importance (e.g. Phase 2 of EB-2022-0200). The uncertainty and lack of evidence to support long term natural gas expansion projects was also highlighted recently when the Ministry introduced Bill 165. The Ministry indicated that Bill 165 is a stop-gap measure and that longer term OEB consideration of verified facts through an open OEB process should dictate the path forward for the longer term.
[2] Exhibit I.STAFF.3, Attachment 1
[3] O. Reg. 24/19: EXPANSION OF NATURAL GAS DISTRIBUTION SYSTEMS (ontario.ca)
[4] Exhibit I.PP-8

funding is not applicable. Pollution Probe is not aware of any terms in the NGEP or governing legislation that allows Enbridge to adjust the proposed grant amount unilaterally. The OEB should expect Enbridge to clearly indicate when they are estimating NGEP grant amounts different that applied for during the NGEP review process or different than what was specifically locked in to the governing regulation. Based on O. Reg. 24/19 and Enbridge's NGEP grant application for this Project, it appears that Enbridge is not in compliance with the NGEP requirements and may not eligible to receive the NGEP grant for this Project[5].

Expansion projects submitted for grant consideration provide high level details available at the time and did not undergo the detailed project review or validation that is typically part of an OEB Leave to Construct process, including consideration of EBO 188 requirements. The NGEP conditions include wording that only enable the grant funding based on specific conditions and changes to Project information can violate those conditions. In some NGEP projects like this one, there are significant changes from the original scope or details included in the NGEP application[6]. For this Project all the major elements have changed including proposed facilities, estimated costs and estimated customer attachment. Each of these elements impacts the Project economics and the eligible grant under NGEP.

Leave to Construct review per the OEB's generic Leave to Construct Issues List includes evaluation for likelihood to meet EBO 188 requirements as well as other public interest consideration on the OEB's Issue List for the proceeding. Since the Project as filed is a modification from Enbridge's NGEP project proposal in EB-2019-0255, it is unclear how the NGEP grant amount outlined in the application will be impacted compared to the Project details included in this OEB application. There does not appear to be anything on the record to confirm that the original estimated grant amount in the application is what will be actually paid. If there is a shortfall (i.e. reducing the PI), it is assumed that Enbridge would absorb those costs rather than ratepayers. Similarly, if there is a surplus (i.e. PI>1) which makes the NGEP grant ineligible[7], it is assumed that Enbridge would also be at risk, rather than ratepayers. The NGEP requirements indicate that a grant will only be provided under the condition that "The project must have a PI of 1.0. The PI is to be calculated based on an individual project (i.e., not a "portfolio" of projects)"[8]. If a project is above or below a PI=1, it appears that the grant funding is not available. It would be helpful for Enbridge to provide clarity around this issue in its Reply Argument given that it would have a direct impact of the estimated Profitability Index

[5] Exhibit I.PP-8, Exhibit I.STAFF-3 (application and terms including condition that PI=1) and Exhibit I.STAFF-7
[6] Project facilities, proposed customers and costs compared to information from Exhibit I.STAFF.3, Attachment 1.
[7] Exhibit I.STAFF.3, Attachment 1, Page 9.
[8] NGEP Requirements per Exhibit I.STAFF.3, Attachment 1,Page 9

(PI). Any recent written confirmation of the proposed NGEP grant amount[9] based on the current Project information would be helpful to confirm that the grant funding for this Project is still valid.

The original evidence filed by Enbridge indicated that the Project had a PI<1.0 (0.99) and the updated application modified the PI to be 1.0. Even based on the updated evidence, the Project has a negative NPV of $24,000[10] which means that the PI is still below 1.0. Based on the survey results for this Project the PI could actually be 0.28 including the NEGP grant or much lower if the survey results are not representative or if the NGEP grant is no longer applicable to this Project.

The Project consists of the following[11]:

- Phase 1
  - i. Approximately 11 km of Nominal Pipe Size (NPS) 8 inch Polyethylene (PE), and
  - ii. Approximately 50 m combination of NPS 6 inch and 8 inch Steel (ST).
- Phase 2
  - i. Approximately 11 km of NPS 8 inch PE., and
- Ancillary facilities including a pressure reducing station, approximately 21 km of PE distribution mains and customer services.

Enbridge has requested that the Ancillary Facilities be excluded from OEB Leave to Construct approval. The Ancillary Facilities (representing a whopping 64% of the Project costs) are an integrated element of the Project and were included in the Project economics (i.e. PI calculation). The Ancillary Facilities are not needed and would not be built in absence of the Project. It is only appropriate to bundle them together as one package for review and approval consideration. Pollution Probe recommends that the full scope of the Project be covered in the OEB Decision and Conditions of Approval.

There are some additional cost estimate risks related to environmental features along the route of the proposed pipelines. These are discussed further under that section below.

[9] From the Ministry and/or IESO account administrator.
[10] E/1/1 Attachment 2.
[11] B/1/1 and EGI_ARGChief_20240327_eSigned.

High Level Options

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

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

Option 1

Require Enbridge to submit to the OEB documentation that confirms the actual NGEP grant amount approved for this Project and if it varies from O. Reg. 24/19, provide documentation to support the variation. Given that the Project does not meet NGEP requirements that the Project is a PI=1.0[12], provide documentation to confirm that a variance from the NGEP requirement has been waived for this Project.

Option 2

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 an actual PI=1.0 or greater over the asset time horizon (e.g. 40 years under current EBO 188 requirements unless otherwise updated by the OEB[13]). Enbridge should provide more robust information[14] 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, i.e. an average life of 18 years) when there are even more economical non-gas options available. An estimate for lost customers should also be more appropriately accounted for in the PI calculation. An assumption of zero is unrealistic and does not align with customer loss evidence put forward by Enbridge[15].
- Provide information (via handouts, electronic communication and/or community education sessions) to consumers in the community on the full range of incentives

[12] Project has a negative NPV per E/1/1 Attachment 2.
[13] A decrease to the EBO 188 timeline may be considered in a future proceeding per proposed in Bill 165.
[14] E.g. detailed literature on the full range of options under the Greener Homes Grant Program.
[15] Recent evidence and testimony in EB-2022-0200 supported the logical assumption that customers will continue to leave the gas system when they change equipment.

and options available including DSM[16], Save on Energy program incentives, and the IESO free electric ccASHP program. 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 cost saving and incentive information Enbridge provided to customers does not include the more modern cost-effective options such as cold climate heat pumps[17]. 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 options[18]. The OEB and Province have been promoting more holistic information to consumers and the fact that Enbridge only distributes natural gas is not a barrier to providing integrated information on energy options and incentives with partners like IESO.

Option 3

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)[19]. This would apply to the entire Project-related capital costs (including Supply Laterals, Reinforcement and Ancillary Facilities). This is important in this proceeding since the Ancillary Facility costs represent approximately 34% of the Project costs. If Ancillary Facility costs are not all treated within the scope of the Project for OEB approval, the actual costs (not forecasted costs for PI purposed) would automatically be collected from ratepayers, regardless of what the actual Project PI ends up being. General Ancillary costs not otherwise identified are recovered through general rates buried in with all the other capital recovery in the annual rate recovery process. Treating them as one package of Project costs would ensure equitable treatment for all costs being driven by this Project.

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

[16] In its EB-2021-0002 Decision the OEB clarified that program information and incentives are valid either for existing customers or future customers. However, Enbridge continues to fail to promote these to expansion communities since it would decrease project economics (i.e. profitability for Enbridge over energy savings benefits for consumers in the community).
[17] 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.
[18] Examples include: EB-2022-0200 Final Transcript EB-2022-0200 Vol 2 page 75 line 25 to page 76 line 12.
[19] 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.

and engagement, mitigate cost overruns, etc.) if Enbridge current evidence does not adequately represent reality.

Require Enbridge to 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 including DSM[20], Save on Energy program incentives, and the IESO free electric ccASHP program. Enbridge should provide a copy of all materials and outreach activities related to this in the Post-Construction Report for the Project. Enbridge has stated to the OEB[21] that it is aware that the Energy Transition is already underway and that an integrated approach is needed to meet Ontario energy consumers' needs. Unfortunately, these are simply empty words without any action, including even the simplest of actions like sharing the existing energy incentives available in Ontario.

Issues for OEB Consideration

Based on the details highlighted in this submission and throughout the proceeding it is clear to Pollution Probe that the application and evidence provided in this proceeding are not of sufficient detail, quality or objectivity to support the Project as filed, including a lack of supporting objective evidence to validate that that the project will actually meet the OEB's EBO 188 required Profitability Index (PI) = 1.0 or greater[22]. The planning for this Project has been underway for many years and it is reasonable to expect that the level of information to support this Leave to Construct application would be more objective, comprehensive and complete. This approach leaves it in the OEB hands to make a decision based on the limited information on the public record and consider options to mitigate the risks associated with the poor quality and biased information in the Enbridge evidence. In the scenario where the Leave to Construct threshold is increased to $10 million, Enbridge has the ability to just go do the Project without specific OEB approval and would incur the risks associated with it estimated Project costs and revenue forecast. The only additional problem is that projects that result in a PI<1.0 also drags the portfolio PI down even further. This would trigger Enbridge to explain to the OEB why the portfolio PI is not in compliance with EBO 188 requirements, but that would occur in another proceeding.

OEB approval of this Project without specific conditions and related language could be interpreted by Enbridge that the 'low bar' set by this application is a new benchmark that

[20] In its EB-2021-0002 Decision the OEB clarified that program information and incentives are valid either for existing customers or future customers. However, Enbridge continues to fail to promote these to expansion communities since it would decrease project economics (i.e. profitability for Enbridge over energy savings benefits for consumers in the community).
[21] Including most recently in EB-2022-0200.
[22] The initial NGEP application was to support a project to meet a PI=1.0 to avoid additional cross subsidization.

is acceptable for the future. In fact, Enbridge has interpreted individual OEB decisions on a few recent expansion projects in this manner[23]. Pollution Probe suggests that it is inappropriate for Enbridge to selectively interpret or adopt 'precedents' based on elements of OEB Decisions that Enbridge likes and dismissing consideration the portions of OEB Decisions that Enbridge does not like. This chronic issue is not isolated to this proceeding. It is understandable why Enbridge may want to 'cherry pick' only the elements of OEB Decisions or guidance that favours Enbridge and its shareholders, but it is not appropriate. The full range of OEB Decisions and guidance needs to be considered rather than 'cherry picking' convenient elements out of context. The OEB has clear processes and approaches to change guidelines or requirements when the OEB wants to modify approaches on a generic basis.

In a few recent expansion projects, the OEB has indicated a level of comfort with less certainty and objective information than typical in traditional proceedings of this type. Pollution Probe notes that these recent expansion projects have generally been smaller than typical expansion projects in Ontario and certainly much smaller than historic expansion projects when there was better economic opportunity for system expansion in Ontario. The smaller the expansion project, the lower the level of risk in general. This Project is larger in cost than most of the recently submitted NGEP projects.

Another factor that can in-part mitigate Project risks is the fact that Enbridge (instead of ratepayers) is at financial risk for over-estimating project economics. It is correct that if Enbridge does a poor job (intentionally or unintentionally) of providing objective information on modern alternatives and/or biased surveys, it creates a problem for Enbridge when the project does not perform in line with the inflated economics. This risk parity partially removes some of the incentive for Enbridge to blindly construct pipeline capital that is uneconomic and likely to become stranded assets. It does not remove the impact to Ontario consumers that could have made better informed analysis if Enbridge had included the relevant modern options and related incentives in its communication materials.

One of the strengths of the OEB process is to ensure that there is sufficient relevant and objective information available on the public record to support consideration and analysis of the issues for each proceeding. The independent regulatory process in Canada (including Ontario) was recently highlighted by the gas industry as the most valid approach to ensure that evidence is adequately tested and that decisions are based on facts[24]. In Pollution Probe's view it is appropriate, prudent and in the public

[23] For example the recent statements by Enbridge in EB-2023—0343 EGI_Ltr_Response_ED_20240315.
[24] March 2024 Transition Accelerator session on natural gas bans.

interest for the OEB to encourage and consider the relevant, objective and current information needed to objectively inform OEB Decisions.

Pollution Probe is aware that the OEB weighs the validity and impact of low quality, biased or unreliable information/evidence for a specific project/application with grant funding from NGEP vs. the broader regulatory picture and in some cases has used other opportunities (e.g. larger or generic proceedings) as an opportunity to update the public record on what the most correct, objective and relevant information is[25]. Pollution Probe understands why the OEB may take this approach in specific applications when there are short term opportunities to mitigate project risks. Pollution Probe encourages the OEB to not dilute the level of rigour required in Leave to Construct applications (in perception or reality). Assessment of some of these issues has been flagged as a general issue for consideration in Phase 2 of EB-2022-0200 and also may be included if the OEB convenes a generic proceeding on updates to certain EBO 188 assumptions in the future[26].

Proceeding now on selective information in a biased manner may appear convenient in the short term, but this ignores the relevant factual information that consumers will eventually encounter when they start exploring real modern options to retrofit buildings and equipment. Creating an economic analysis (i.e. PI calculation) based on unrealistic or biased information will not actually improve the real economics of this Project. It will only result in further declines below 1.0 in the Enbridge portfolio PI as has been witnessed by the OEB in recent years. Taking a biased approach will not change the inevitable progression of the Energy Transition and actual consumer choice for more cost-effective energy options.

An inadequate level of planning, stakeholder engagement and use of objective assumption support for projects is a reason why recent performance of Enbridge's expansion projects have not actually performed in alignment with expectations[27]. The economic risks for the OEB and ratepayers related to an expansion project are particularly elevated when a project barely meets a PI=1.0[28] leaving no safety factor should the costs be higher or the revenue be lower (including attachments, volumes and SES collection from real customers over 40 years). 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

[25] For example, correcting the record on incorrect assumptions for non-gas alternatives like highlighted in Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 11, Page 74 lines 16-28.
[26] Per the suggestion from the Ministry of Energy.
[27] 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.
[28] Enbridge's application is predicated on meeting this economic threshold.

an informed decision on their likelihood to attach to natural gas and stay on natural gas over the duration of the project (i.e. 40 years). Additionally, Enbridge has confirmed that when Energy Transition elements and declining average use are properly included in a project analysis, it further reduces actual project PI below 1.0[29]. This is logical and pertinent to this Project. The NGEP was specifically designed to subsidize the specific expansion projects selected to meet EBO 188 requirements, but additional cross-subsidization should not occur.

Under NGEP, maximum grant amounts are identified in order to provide maximum incremental subsidies for natural gas expansion projects, but the access to grant funding does not guarantee that the project will actually 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. It is unclear if NGEP grant amounts will be adjusted when the current project submitted to the OEB does not match the project information submitted for NGEP consideration. Pollution Probe suggests that gap could be closed with simple addition of a validation check on actual NGEP funding based on actual project scope, customers forecast and project cost estimate. Even projects below the Leave to Construct threshold require Enbridge to follow the EBO 188 guidelines, including PI threshold requirements.

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 and economics above those in actual has become a trend for Enbridge lately as demonstrated by actual PI results. Forecasted results can be gamed, but actual results cannot.

The Enbridge survey result was a passive survey based on poor, incomplete and biased consumer education and without information on 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 suggests, that customers will choose the best option once they have adequate information. This of course actually occurs after a consumer has investigated those options adequately (at the time of informed choice rather than completing a passive survey that is not linked to any commitment). A passive survey

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

that does not ensure that consumers are adequately informed, will always have a skewed and unreliable outcome.

Enbridge has forecasted attachment of 723 customers for this Project. The OEB must understand that these are not real customers that have actually committed or even been identified[30], but simply a spreadsheet math estimate based on Enbridge's interpretation of limited survey information and extrapolated to customers that declined to participate in the survey. It also assumes that the non-binding theoretical survey result based on insufficient consumer education, will result in a choice of natural gas when consumers decide to change equipment. This is not a logical conclusion when there are more cost-effective options that do not lock a customer into a 40 year Enbridge surcharge.

Enbridge identified that there is a total population of 893 customers in this community that could be considered for natural gas[31]. A total of 195 surveys were completed from a list of 934 home owners[32]. This represents a 21%[33] response rate from those surveyed, which is a new record low for an expansion project. This demonstrates a lack of consumer interest, despite the provision of consumer information biased in favour of natural gas. It is unclear how 934 surveys could be attempted when there is only 893 potential customers that could be served if Enbridge captured 100% of all potential customers. This suggests that there is an error on the survey participation and/or Enbridge customer count.

The Forum survey indicated that 42%[34] of those surveyed are likely to replace their heating system and 82% of respondents would consider using natural gas for some application in the future. The survey was non-binding and did not guarantee that gas would be available or used. Applying these survey results to the full population and assuming that those that did not complete the survey were not willing to support a commitment to connecting, the resulting conversion rate to natural gas over the next 40 years would be approximately 18%[35] or 172[36] customers at best and likely much lower[37]. This outcome would result in a Project PI = 0.28[38] This is significantly lower than the 723 customers and PI=1.0 that Enbridge is hoping for. The minimum number of customers that will need to attach to the proposed pipeline for the Project to achieve PI

[30] Exhibit I.PP-2b
[31] Exhibit I.PP-6b
[32] Exhibit I.STAFF-6 and Exhibit I.PP-3
[33] 195/934 = 21%
[34] Exhibit B, Tab 1, Schedule 1, Attachment 6, Table 1, note 1.
[35] 172 customers / 934 homeowners = 18.4%
[36] 195 surveys completed x 0.88 = 172 customers
[37] If the survey response of 42% likely to change their heating system is used, the results would be much lower, at 72 customers.
[38] Per information in E/1/1 Attachment 2 and using 18% attachment. [(18% x 7566) + 1087] / 8677 = 0.28

of 1.0, with the proposed SES and NGEP funding, is 723. There is no valid evidence to support that has a hope of occurring.

Enbridge indicates that it has no reasonable basis to believe that expansion facilities will become stranded assets and therefore suggests that it has no responsibility to conduct any assessment related to stranded assets[39]. Enbridge suggests that "The Project's natural gas attachment forecast is based on the energy interests expressed by actual residents and business-owners within the Project area"[40]. This is not an accurate statement since Enbridge did not get confirmation from actual residents and business-owners within the Project area. This assumption has been confirmed by Enbridge[41] as an Enbridge extrapolation based on the non-binding survey.

The survey results indicated that a portion of local consumers currently use electricity for heating. IESO offers a free cold climate air source heat pump to customers that use electricity for heating and are low income (i.e. the target consumers for Ministry retrofit programs like NGEP). This program avoids the significant costs related to retrofits to natural gas, avoids a commitment to an ongoing Enbridge surcharge and provide ongoing annual cost savings above the option of switching to natural gas. IESO and industry ASHP manufacturers indicate savings up to 50% on heating compared to natural gas which is less than half of that, at only 24%.

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 propane[42]. Enbridge's own Net Zero study conducted by Guidehouse forecasted that non-gas heating[43] will be 40%-85%[44] by 2050, which is a shorter time horizon to migrate from gas than the project horizon of this project[45].

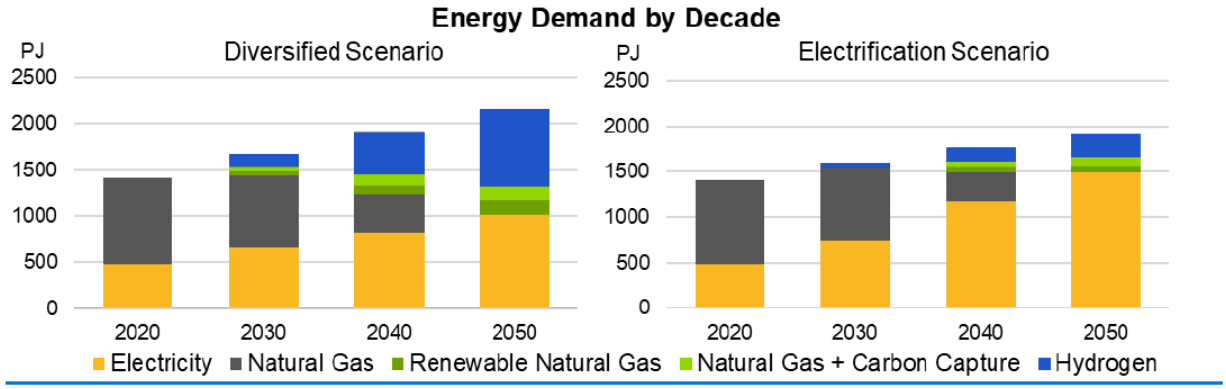
As noted earlier, Enbridge should retain the risk if the actual project is less economic than provided in its evidence (i.e. project costs exceed those placed in evidence by Enbridge and/or revenues are less than those indicated in Enbridge's evidence). There is no requirement for the OEB to transfer that risk to ratepayers. 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, engagement and better surveys) should Enbridge evidence not adequately represent reality. The

[39] Exhibit I.PP.21
[40] Exhibit I.PP.21
[41] Exhibit I.PP-2b
[42] Exhibit B Tab 1 Schedule 1, Table 1 and Figure 1.
[43] Includes electricity and heat pumps only for range provided. If other options were added, it would increase the percentages.
[44] EB-2022-0200 Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 2, page 17 lines 20-25.
[45] 40 years would be 2064

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. Ensuring that Enbridge carry all risks related to poor forecasting would also protect ratepayers from the negative impact of stranded assets.

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 is commissioned in 2025, it would require collection from ratepayers out to 2065 based on a 40 year amortization period 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. Enbridge has confirmed that this project has not been designed or approved for hydrogen[46].

Figure 1: Pathways to Net Zero Emissions for Ontario [47]



Project Costs and Economics

The total cost for the proposed Project is estimated to be just over $35.5 million[48], of which approximately $22.8 million, or 64% is attributed to Ancillary Facilities. A summary table of Project-related costs is below.

[46] Exhibit I.PP.22
[47] EB-2022-0200 Exhibit 1.10.5.2_Pathways to Net-Zero Emissions for Ontario_BLACKLINE_20230421
[48] Exhibit E Tab 1 Schedule 1, Table 1.

Item No.	Description	Pipeline Costs – Phase 1	Pipeline Costs – Phase 2	Ancillary Costs[1]	Total Project costs
1.0	Material	457,414	473,021	755,777	1,686,212
2.0	Labour and Construction	4,265,244	3,645,643	15,913,154	23,824,041
3.0	Outside Services	1,264,728	798,785	3,401,641	5,465,154
4.0	Land, Permits, Approvals and Consultations	48,349	3,684	99,013	151,046
5.0	Direct Overheads	135,238	84,712	266,934	486,884
6.0	Contingency	596,684	470,303	1,826,673	2,893,660
7.0	Sub-Total	6,767,657	5,476,149	22,263,193	34,506,999
8.0	Interest During Construction	281,943	182,412	538,269	1,002,624
9.0	Total Project Costs	7,049,600	5,658,561	22,801,462	35,509,622

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 review and Decision. It is unclear why Enbridge would make a request to exclude Ancillary costs from OEB Project review, given that the Ancillary Facilities would not be built in isolation of the Project.

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 0.47[49]. Enbridge also confirmed that Energy Transition, declining average use and other factors affecting customers decreases the economics of a project below what is expected[50]. Based on the issues identified in recent applications including this one, it is 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.

<u>Enbridge Project Proposal Costs to Consumers</u>

[49] EB-2022-0200 Exhibit JT3.16 Table 1.
[50] Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 10, Page 182 lines 13 - 21 and Page 183 lines 16-21

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

- Assumes that costs and attachments are per Enbridge forecast
- 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[51] per customer	$46,348[52]
NPV of O&M Cost (gas) per customer	$ 1,195[53]
NPV of other expenses per customer	$ 9,925[54]
Initial Project Cost per customer	**$57,468**

Note: The estimated NGEP Grant portion is $21.33 million[55] or approximately $29,502 per customer. As noted earlier, this figure does not match the NGEP published figure for this Project.

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

Cost element	Estimated Annual
Average ASHP Savings over Natural Gas in Ontario[56]	$840
Avoided Enbridge Customer Charge (estimated at $550/year[57] plus including HST)	$550
Total Annual Savings	$1,390

[51] Excludes future capital costs and annual operating costs
[52] $ 35,509,622/ 723 potential customers = $46,348 per customer. Higher if estimated attachments are not achieved.
[53] Per Exhibit I.PP-27
[54] Per Exhibit I.PP-27
[55] E/1/1 Attachment 1.
[56] Objective third part calculator estimate of ASHP savings compared to natural gas in Ontario – EB-2022-0200 K2.2, Page 251.
[57] EB-2022-0111 Exhibit I.PP.15 and EB-2022-0200, Exhibit 8, Tab 2, Schedule 9, Attachment 10, p. 1, line 1, column (c), Updated March 8, 2023. Annual delivery charges include a monthly customer charges and demand charges. As part of the
2024 Rebasing proceeding, Enbridge Gas has proposed a straight fixed variable with demand rate design for general service rate classes. Rate design proposals are subject to the OEB's decision in Phase 3 of the 2024 Rebasing proceeding.

The figures above are very close to available industry and IESO information for comparing heating costs of a cold climate ASHP against a natural gas furnace. Annual savings are even greater when considering the cooling saving.

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 propane[58]. 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. This is why heat pumps have outpaced traditional gas furnaces for annual installations. 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 (including the free ccASHP under the IESO Save on Energy program). As noted above, the cost to install more cost-effective options with lower emissions is less than a natural gas alternative (even the highest Enbridge estimates) and the energy savings are superior. For low income consumers using electric heat, the costs advantage over installing natural gas equipment is even greater when considering incentives available.

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. Pollution Probe is aware that consumer information issues may be included in future OEB proceedings[59], but waiting for those is a disadvantage to consumers considering an equipment change now.

Energy Efficiency Consideration

Enbridge did not provide any DSM, IESO (Save on Energy) or other energy efficiency or equipment incentive information to the community as part of the survey or communication package[60]. Enbridge relies on a mass market approach for consumers to find this information rather than providing it for consumers impacted by a project[61].

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

[58] Exhibit B Tab 1 Schedule 1, Table 1.
[59] E.g. Phase 2 of EB-2022-0200 and future generic proceedings related to EBO 188.
[60] Exhibit I.PP.7, Exhibit I.PP.18, Exhibit I.ED.45 & Exhibit I.ED.9
[61] EB-2022-0111 Exhibit I.PP.19

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 equipment[62]. 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 remains[63]. 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”[64]. Unfortunately, Enbridge has not marketed DSM or other energy efficiency opportunities to potential customers of NGEP Community Expansion projects including this one[65]. Enbridge has repeatedly committed to the OEB and stakeholders to fix this gap[66]. Nothing has been done to remedy the ongoing problem and direct OEB intervention for expansion projects is needed.

The problem is so bad that one of the longest-standing members of the DSM Stakeholder Advisory Group, recently resigned over the lack of intent and action by Enbridge to make any progress on DSM in alignment with OEB direction[67].

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"[68]. 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 regulated 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 projects[69]. These lost opportunities reduce DSM results at a time when the OEB’s

[62] Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 84, lines 26-27.
[63] Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 86 line 23 to page 87 lines 2-5.
[64] Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 87 line 25 to page 88 line 2.
[65] Exhibit I.PP.8, Exhibit I.PP.26 & Exhibit I.ED.45
[66] Final Transcript EB-2021-0002 EGI DSM Vol 3 March 30 2022. Page 85 line 20 to Page 88 line 12.
[67] EB-2022-0295 Marconi L20240328 Resignation
[68] EB-2022-0200 2.6-Staff-81, part (c)
[69] E.g. EB-2020-0192 Decision Page 13 and IR responses to OEB staff interrogatory 13 a) and Pollution Probe interrogatory 10

recent DSM Decision stated that more DSM results are expected[70]. 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.

Environmental and Socio-economic Impacts

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 construction. 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. This is a risk in completing budgeting prior to the EPP is completed. The EPP will also need to accommodate approval agency conditions once the permits and approvals are completed.

There have been 24 watercourses identified along the proposed route and it is known that bedrock will be encounter during the proposed crossing of watercourses[71]. Hoe ramming is not a possible option when crossing under a watercourse and rock boring will likely be required. This is the most expensive construction costs for any potential environmental feature and has a potential to significantly increase the cost estimate and reduce the economics of the project. Construction through bedrock, particularly when there are many watercourse crossings, has caused previous projects approved by the OEB to be significantly over budget[72]. In addition, construction through rock is invasive and a higher impact to fish and wildlife. The ER calls for an Environmental Inspector to be present for all watercourse crossing[73]. A special mitigation plan should have been developed with permitting authorities and filed with the application to validate whether the proposed approach is even possible.

The ER specifically indicates that an Environmental Inspector (EI) should be on-site during sensitive watercourse crossings and for the duration of the Project to monitor a a range of sensitive issues[74]. The OEB has previously included conditions for an Environmental Inspector to be onsite in its Conditions of Approval. If the OEB indicates

[70] EB-2021-0002 Decision
[71] Exhibit I.PP-31
[72] E.g. Perth Reinforcement
[73] EGI_F-1-1_Attachment 1, Page 102.
[74] Examples include EGI_F-1-1_Attachment 1, Pages, 82, 88 and 102.

that Enbridge must follow the recommendations in the Project's Environmental Report and EPP, that requirement would automatically be included.

The ER identified shallow bedrock in the project area and Enbridge has confirmed that it expects to encounter it during constriction[75]. Based on the ER, there is likely to be significant amounts of bedrock encountered. This could impact schedule and cost related to the Project.

The ER identifies 459 water wells in the area which could be impacted by construction and particularly rock excavation. Of the 459 well records, there are:

- 351 are designated as domestic
- 35 are designated as livestock or irrigation
- 17 are designated as commercial/industrial/recharge
- 15 wells are designated for public use
- 41 are either not used, unknown well types, abandoned, or observation/test wells.

Public use community well serve a broader purpose than an individual well and could have impacts on a large number of locals and visitors if impacted. Enbridge confirmed that it will need to undertake a detailed well monitoring program prior to construction. Given the proposed timelines for the project, it will be difficult to get access to all well for third party testing prior to construction.

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 decisions. Best practice would have been to provide direct 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. Partnering with IESO would have ensured that relevant electricity conservation program information was provided by Enbridge at the same time. Every customer Enbridge is targeting is an electricity customer already. An integrated approach aligns more closely with Ontario energy policy direction and is simply common sense when providing information to Ontario energy consumers.

Enbridge indicated that it has not received the required TSSA review sign-off letter[76]. This is a critical safety related review as part of the Leave to Construct approval

[75] EGI_F-1-1_Attachment 1, Page 13 and Exhibit I.PP-31.
[76] Exhibit I.PP-33

process. Proceeding without this review and sign-off precludes the Project from proceeding.