130 Queens Quay East, Suite 902
Toronto, Ontario M5A 0P6
T 416.926.1907 F 416.926.1601
www.pollutionprobe.org

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

January 24, 2025

EB-2024-0200 St. Laurent Project Leave to Construct
Pollution Probe & CAFES Ottawa Consolidated Submission

Dear Ms. Marconi:

In accordance with OEB direction, please find attached the consolidated submissions for Pollution Probe and CAFES Ottawa. Elements of the submissions from Pollution Probe and CAFES Ottawa have some similar and different areas of focus, but it was determined that it would be more efficient and helpful to the OEB to consolidate submissions into one consolidated document. Pollution Probe and CAFES Ottawa also appreciate the proactive and efficient coordination across stakeholders throughout the process and during development of submissions.

Please note that PollutionProbe_CAFESOttawa_SUB_Appendix A _20250124 has been filed as a separate document and an Excel version of this Appendix has also been filed.

Respectfully submitted on behalf of Pollution Probe and CAFES Ottawa.

Michael Brophy, P.Eng., M.Eng., MBA
Michael Brophy Consulting Inc.
Phone: 647-330-1217
Email: Michael.brophy@rogers.com

Cc: Enbridge Regulatory (via EGIRegulatoryproceedings@enbridge.com)
All Parties (via email)
Richard Carlson, Pollution Probe (via email)
Angela Keller-Herzog, CAFES Ottawa (via email)

EB-2024-0200

ONTARIO ENERGY BOARD

Enbridge Gas Inc.
St. Laurent Replacement Project
Leave to Construct Application

POLLUTION PROBE & CAFES OTTAWA CONSOLIDATED SUBMISSIONS

January 24, 2025

Submitted by: **Michael Brophy**

Michael.brophy@rogers.com

Phone: 647-330-1217

28 Macnaughton Road

Toronto, Ontario M4G 3H4

Index

The following table provides an index of the major sections which were grouped by logical area to correlate with issues in the Issues List.

1) Background

Enbridge Gas Inc. (Enbridge) applied to the Ontario Energy Board (OEB) on June 17, 2024, under sections 90 and 97 of the Ontario Energy Board Act, for an order granting leave to construct approximately 17.6 kilometers of natural gas pipeline and associated facilities along St. Laurent Boulevard, Sandridge Road and Tremblay Road in the City of Ottawa. The proposed natural gas pipeline is proposed to replace the existing St. Laurent Pipeline (SLP). Enbridge Gas 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 St. Laurent Replacement Project has been a longstanding focus in Enbridge's Asset Management Plans (AMPs) and the focus of several proceedings over the past several years. Below is a summary table of notable milestones related to the St. Laurent Replacement Project (Project). The table below does not include more granular activities that Enbridge has undertaken in support of the St. Laurent Replacement Project[1], which are referenced as appropriate in the submission.

Date	Project Activity
March 2021	Original Laurent Replacement Project Leave to Construct application filed by Enbridge.
May 2021	OEB places the application in abeyance pending resolution of the outstanding consultation, routing and approval issues. Enbridge advised the has begun consulting with the Royal Canadian Mounted Police (RCMP) and MTO in an attempt to resolve routing issues. Also, Ministry of Transportation (MTO) filed a letter in April informing the OEB that the proposed route was unacceptable and would not be allowed per their previous communications with Enbridge[2]
September 2021	An updated application is filed by Enbridge including route revisions.
October 2021	Enbridge files for Incremental Capital Module request for St. Laurent Replacement Project (Phase 3)[3].
April 2022	OEB Decision issued denying ICM recovery for St. Laurent Project (Phase 3)[4]
May 2022	OEB Decision denies Leave to Construct approval and urges Enbridge to update its distribution Integrity program approach to use more in-depth quantitative and qualitative analyses of alternatives that specifically include the impacts of IRP, DSM programs and de-carbonization efforts[5]. The OEB Decision also noted that for "similar future applications, the OEB urges Enbridge Gas to provide more details about life-cycle costs including abandonment costs and the probability of future under-utilization"[6].

[1] E.g. Stakeholder Management Plan per JT2.17 including Attachments 1 and 2.
[2] EB-2020-0293 - Alexandre GitKow_Ministry of Transportation_ltr comment_20210409_Redacted
[3] EB-2021-0148
[4] Ibid.
[5] EB-2020-0293 dec_order_EGI_20220503_eSigned, Page 24.
[6] EB-2020-0293 dec_order_EGI_20220503_eSigned, Page 26.

Date	Project Activity
October 2022	Enbridge files the 2023-2032 Asset Management Plan including updated Capital estimates for the St. Laurent Replacement Project (Referenced as phase 3 & 4)[7].
October 2022	Enbridge sends the OEB a letter indicating that it is replacing a section of the St. Laurent Pipeline that requires mitigation[8]. This is a section under Highway 417 and the cause of the soil contamination impacting the pipeline coating is unknown[9]. Enbridge includes select examples of ex-franchise transmission pipeline ruptures to highlight the risks to the OEB. The selected case studies are transmission pipelines, although the SLP is a distribution pipeline[10].
June 2024	Enbridge files a St. Laurent Replacement Project Leave to Construct application (EB-2024-0200)
November 2024	Enbridge filed the 2025-2034 Asset Management Plan (AMP) including updated Capital estimates for the St. Laurent Replacement Project[11]. This AMP follows the Phase 1 Rebasing Decision and includes a section that indicates 2025-2034 Capital plan has been successfully rebalanced within the OEB Capital envelope mitigation of $250 million while maintaining safety and reliability across the Ontario system[12].
2022-2023	Enbridge undertakes a series of maintenance, repairs and section replacements for the SLP to mitigate specific integrity items identified. Large replaced sections include along St. Laurent Blvd[13] and the section crossing Highway 417[14].

2) Overview & Recommendations

This document includes the consolidated submissions of Pollution Probe and CAFES Ottawa. Pollution Probe has been engaged in Leave to Construct proceedings previously including the previous Leave to Construct application for the St. Laurent Replacement Project. CAFES Ottawa is a new participant with members from urban, suburban and rural community associations, environmental organizations and citizens organizations. This network includes over 150 individual and organizational representatives from across 23 wards and over 50 neighbourhoods in the City of Ottawa, those impacted and served by the SLP. Although there is some commonality of interests and focus between these stakeholders in this proceeding, there are distinct differences in membership, constituents and areas of focus which require distinct interventions. For example, CAFES Ottawa has a higher focus on granular activities, lobbying that is counter to the public interest in Ottawa and impacts of this Project on its

[7] EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, Pages 119-120 and EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, Appendix A, Pages 14-15.
[8] Exhibit B, Tab 1, Schedule 1, Attachment 1.
[9] Exhibit I.1-PP-14.
[10] Exhibit I.1-STAFF-10.
[11] EB-2020-0091 EGI_AMP_2025-2034_20241108, EB-2024-0200 Final Transcript for EB-2024-0200 Technical Conference November 13, 2024 Page 65 and JT3.8.
[12] EB-2020-0091 EGI_AMP_2025-2034_20241108, Page 17, Section 1.6.
[13] Exhibit I.1-STAFF-1, Attachment 1.
[14] As outlined in the OEB letter per Exhibit B, Tab 1, Schedule 1, Attachment 1.

constituents that live, work and travel along the current and proposed routes of the St. Laurent Pipeline. CAFES Ottawa staff and its constituents are the residents and business that make up the City of Ottawa and are directly impacted by the current and future energy use in the City of Ottawa. Through close coordination Pollution Probe and CAFES Ottawa have been able to coordinate efficiently on the common issues throughout this proceeding. After a review of the issues and draft content developed for submissions, it was determined that although there is a difference in focus and issues, it would be most useful to the OEB to provide submissions in a consolidated manner. This provides the opportunity to include issues and information that is distinct, while leveraging an efficient approach for the common elements.

The OEB has real options to consider for this application. Despite Enbridge's persistent effort toward supporting a Full Replacement Option, Enbridge reconfirmed that all the alternatives (including Inspection and Repair, as needed) are real and are "alternatives that are able to plausibly mitigate the risks to a level that could be considered acceptable"[15]. The OEB previously declined Leave to Construct approval for this Project and the onus is on the applicant (Enbridge) to prove its case in support of a different outcome. The OEB has also previously noted that if an application is deficient, then the application may be denied, adjourned, or approved subject to conditions.

The following is a summary of major recommendations for the OEB. The recommendations pertain specifically to the application and this proceeding, but it is important to note that some of these have a broader impact that should be considered in the pending decision. Additional detail related to each recommendation is provided in the appropriate detailed section.

- It is recommended that Leave to Construct approval be denied in support of the more cost-effective Inspection and Repair Option. Details to support this recommendation are included in the detailed sections below. This recommendation is supported by the facts, including:
    - It represents a real option to mitigate the risks presented[16].
    - It is the most cost-effective alternative (see Section 5.3 – NPV Analysis and Results for details)
    - It avoids creating additional cross-subsidies for an Enbridge affiliate (Gazifere) on the back of Ontario ratepayers.
    - It is the least impact alternative from an environmental and socio-economic perspective.
    - It aligns with the Energy Transition and City of Ottawa Energy Evolution Plan, including Net Zero by 2050.

[15] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 85, line 26 to page 86 line 5.
[16] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 85, line 26 to page 86 line 5.

    - It avoids the significant risks associated with stranded assets from this Project.
- Require Enbridge to include a prudent project-specific forecast for natural gas volumes and customers for proposed (Leave to Construct) pipeline applications, including the proposed amortization period for the project.
- It is important to distinctly separate historical costs previously incurred and denied by the OEB from those included in this new Project application. This requires removal of $22,406,044 from the Project estimate in the Leave to Construct for costs previously incurred[17]. This provides a more relevant Project estimate for assessment of this proposed Project and guards against historical costs (including those from previously rate terms) to be perpetually carried forward.
- If Leave to Construct is approved, require a Contribution in Aide of Construction (CIAC) from Enbridge's affiliate Gazifere prior to commencement of construction to cover Gazifere's portion (28.1%[18]) of the costs pertaining to the Project.
- If Leave to Construct is approved, require that the Project be fully depreciated on a linear basis prior to 2050 (or earlier if the OEB deems that more prudent). This would lower the impact of stranded assets expected to occur by 2050.
- The Standard Conditions of Approval[19] requires Enbridge to retain City of Ottawa permits and approvals prior to undertaking construction of the proposed Project. Given that Enbridge is proposing to locate the majority of the Project in the same congested road right-of-way where the existing pipeline is located, it is expected that the City of Ottawa will require Enbridge to remove the existing pipeline, rather than abandon it in place (similar to the condition also required by the National Capital Commission). If Enbridge intends to object to these permitting conditions, Enbridge should specifically state the reasons in its Reply Argument in order to provide an opportunity for the OEB to consider it in its Decision.
- If Leave to Construct is approved, include a requirement to file the completed Environmental Protection Plan (EPP) prior to the commencement of construction, similar to the Condition of Approval for the most recent St. Laurent Pipeline project completed[20].

CAFES Ottawa and Pollution Probe understand that despite the evidence on the record in this proceeding and that the Inspection and Repair Option is the most cost-effective approach, there are some external pressures built through Enbridge lobbying for replacement of the SLP. Details on that focus are included in the public record in this proceeding and evidence is present to show that when the lobbying and information campaign was built on misinformation, it has failed to gain the support that Enbridge

[17] Exhibit JT3.8 Table 2 and Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 19 line 2 to page 22, line 25 and JT2.7.
[18] Exhibit JT3.6.
[19] Exhibit I.7-STAFF-25, see item number 3.
[20] EB-2019-0006 OEB Decision Page 8.

intended. Additional complexity exists with the introduction of Bill 165 since 2022, which provide another avenue for Enbridge to influence project approvals and allocation of costs. Transparency of OEB and government decision making is key to an efficient Energy Transition and integrated energy planning approach. It is important that energy infrastructure decision align with an efficient Energy Transition.

Enbridge often refers to selective past Decisions as a basis of precent to support its requests. It is important that regardless of the OEB's decision in this case, the OEB does not impede modern progress by enabling Enbridge to selectively interpret this case as a new precedent to dismiss the OEB's other recent Decisions that indicate that status quo Capital replacement is not sustainable and that more modern approaches need to be used, including extending the life of Capital assets, Integrated Resource Plan (IRP) alternatives and others (including system pruning). Maximizing new Capital expenditures may increase Enbridge profits, but is leading to much higher overall costs[21] to ratepayers and stranded assets that can't be mitigated after Capital expenditure is made.

This proceeding did not include a request from Enbridge for an incremental funding. This means that Enbridge would need to prioritize this project (if approved) within the Capital envelope set by the OEB[22], unless the OEB provides incremental Capital approval in the future. The basis for such a request and approval would need to be assessed at that time.

[21] As discussed in a later section below, if the OEB were to set the precedent of replacing these kinds of pipelines rather than better inspection and repair, it will lead to hundreds of billions in costs.

[22] 2024-2028 Capital spending was defined by the OEB in EB-2022-0200 and EB-2024-0111.

3) Project Context

The SLP was originally built and commissioned between 1958 and 1959. The pipeline has had various replacements and relocations over its operational lifespan, which are referred to as subsequent phases[23]. It is only following the OEB's 2022 Decision declining Leave to Construct that Enbridge began undertaking the SLP inspection and repairs needed. This includes an assessment of cathodic protection where Enbridge determined that it was not applying the right level of cathodic protection to the SLP. These gaps have now been fixed[24]. The primary issue facing the current SLP is third party damage given that it is located in a congested and busy downtown corridor[25]. This is the corridor Enbridge has proposed for the replacement pipeline.

Enbridge is proposing to replace approximately 400 m of Nominal Pipe Size (NPS) 16 Extra High Pressure (XHP) Steel Coated (ST) natural gas main, approximately 10.2 km of NPS 12 XHP ST, and approximately 3.8 km of smaller diameter (NPS 4, 6 & 8) XHP ST natural gas main in the City of Ottawa, Ontario. The pipelines are proposed to be abandoned in place and will be replaced with, approximately[26]:

- 10.0 km of NPS 12 XHP ST;
- 2.5 km of NPS 16 XHP ST;
- 0.3 km of NPS 6 XHP ST;
- 0.9 km of NPS 6 Intermediate Pressure (IP) Polyethylene (PE); and
- 3.9 km of NPS 4 IP PE.

Enbridge Gas will also construct ancillary facilities to connect the gas services currently fed from the existing XHP main. This Project has been put forward for OEB consideration based on its age and forecasted condition. There are no incremental benefits forecasted related to the proposed Project.

The details on current in-franchise customers served by the SLP and those of Enbridge's ex-franchise affiliate (Gazifere) in Quebec[27] are noted below. The total customers in the City of Ottawa currently on natural gas is approximately 400,000, which is just over three times[28] the Ottawa customers served by the SLP.

[23] Exhibit I.1-CAFES Ottawa-17.
[24] Exhibit I.1-FRPO-20 and Exhibit I.1-STAFF-4.
[25] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 35, line 24 to page 27, line 15.
[26] Exhibit D, Tab 1, Schedule 1, Page 1.
[27] Exhibit I.1-STAFF-2a
[28] 400,000 / 126,200 = 3.17

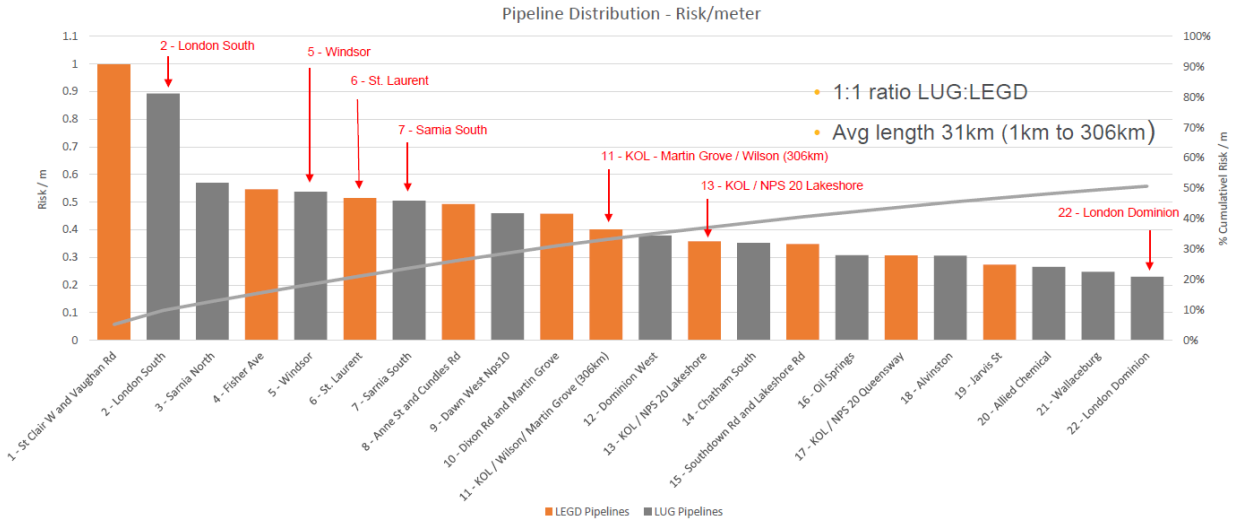
	City of Ottawa[1]	Gazifère (in Gatineau)	Gazifère (not in Gatineau)	Total
Customers Served	126,200	40,700	600	167,500

As noted, the single largest customer on the pipeline is outside Ontario and is an Enbridge affiliate (Gazifere) in Quebec. Approximately 28.1% of the peak design day demand is currently allocated to Gazifere[29] and there is currently no firm obligation for Gazifere to pay its fair share of a replacement pipeline through a Contribution in Aide of Construction (CIAC) or through a firm 40-year volumes/payment commitment that would equal the costs related to the ex-franchise demand portion of the Project estimated costs. This creates additional risk beyond the declining natural gas demand forecasted in the City of Ottawa. It is a common requirement that a CIAC be obtained (or secured via appropriate contract filed with the OEB as part of the Leave to Construct) to cover project costs were a single large customer such as Gazifere is to benefit from the Project. It is not fair that Ontario ratepayers pay for Capital assets when such a large portion of the benefits are leaving Ontario. If the OEB decides to grant Leave to Construct approval, it is recommended that the OEB follow that same approach in this proceeding to avoid saddling Ontario ratepayers with a new Capital expenditure which is intended to service a single ex-franchise customer. This would also help mitigate some of the stranded asset risks associated with this Project.

The OEB Decision stated that “the OEB suggests that Enbridge Gas take a proactive approach to inspecting and maintaining the subject pipeline until it can be demonstrated that pipeline replacement is necessary”[30]. The SLP represent just 11.1 km[31] of approximately 10,900 km[32] of similar active steel pipe main 60 years of age or older in the Enbridge Gas distribution system across Ontario. Enbridge confirmed that it has not applied the OEB integrity assessment program recommendations to the other 99.9% of these similar pipelines[33]. Enbridge applied a custom approach to its integrity assessment for the SLP and given that this has not been a systematic portfolio approach, the SLP assessment sits stranded as a sample of one with no comparators based on the QRA approach. Using a custom approach has made it easier for Enbridge to make systematic adjustments throughout the analysis (including economics) in favour of a Full Replacement over the current Inspection and Repair Option.

[29] Exhibit JT3.6. Similarly, approximately ¼ of the customers using the pipeline are outside Ontario per Exhibit I.1-STAFF-2a
[30] EB-2020-0293 dec_order_EGI_20220503, Page 15.
[31] Staff-17d 7.8km is 70% of existing pipeline to be replaced. Although Enbridge other references suggests that the actual length may be a slightly different value.
[32] JT2.14
[33] Exhibit I.1-PP-30.

Despite SLP being just 0.1% of the steel distribution pipeline of a similar of older vintage, there has been no comparative information provided to indicate that SLP warrants priority of Capital allocation compared to similar pipelines across the system. The SLP is not special and the form of mitigation actions for this pipeline will have precedential considerations much broader than this application. In fact, evidence on the record suggests the opposite. The SLP does not even sit at the top of the list for similar Ontario pipelines requiring some form of mitigation[34].



Enbridge has already recently repaired or replaced certain sections that were determined to require mitigation. There are no other sections requiring immediate mitigation. If there were, Enbridge would have already progressed with those actions.

The most significant risk flagged for this pipeline is third party damage since the SLP is located in a congested and busy downtown section of Ottawa. Mitigation for damage prevention is similar to other pipelines by increased awareness and monitoring[35]. Older pipelines may not be as resilient as brand-new pipelines, but every damage is unique in its potential for impact. It is common to find that pipelines have been hit by contractors and not reported, particularly when they are located in the road right-of-way. Even the illustrative examples used by Enbridge to highlight potential risk are related to third part damage examples which can occur even to new pipelines[36].

If a replacement with new Capital pipeline approach is preferred by Enbridge, rather than inspection and repair, it could result in upgrade costs to ratepayers in the order of $208 billion[37] just based on current data for Ontario pipelines of a similar or older

[34] Exhibit I.1-CAFES Ottawa-10, Attachment 10, Page 25.
[35] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 35, line 24 to page 27, line 15.
[36] E.g. Exhibit I.1-STAFF-9.
[37] $208 million / 0.1% = $208 billion

vintage to SLP. A full replacement approach is more expensive than systematic inspection and repair approach. This is true for SLP as well as the 10,900 km of other similar steel pipelines that are the same vintage or older[38]. The OEB has confirmed that continuing Enbridge's current practice of Capital project spending without consideration of alternatives to avoid stranded assets, is not sustainable[39]. A more proactive approach for inspection and repair is the only prudent path forward, combined with other tools to mitigate demand such as IRP, DSM or system pruning programs[40].

Providing objective integrity information specific to the SLP has the ability to enable the OEB to assess repair vs. replace options where appropriate. The current AMP prioritization process is opaque and Enbridge simply prioritizes to spend the full Capital amounts approved by the OEB without any incentives to mitigate Capital spending. This common issue is being reviewed by the OEB in EB-2024-0129 and indirectly in EB-2024-0063.

The evidence indicates that the custom QRA and Targeted Integrity Program approach that forms the core basis to support Enbridge's Full Replacement Option was a subjective and biased assessment to support building a new Capital pipeline. The larger elephant in the room is the non-technical campaign developed by Enbridge in an attempt to influence the OEB, City of Ottawa officials, the public and other important stakeholder and decision makers. CAFES Ottawa has had a front row seat to this campaign through its local focus with impacted and targeted stakeholders in the City of Ottawa. Some of these efforts in support of the Project have had unintended consequences that undermined Enbridge's credibility and required additional information campaigns to put factual information into the public that the SLP is fully operational and not at undue risk of failure. Many of these details were placed on the public record throughout this proceeding and are noted in the appropriate sections. However, due to the size of the Enbridge campaign, it is not possible to recap all the relevant actions and materials in this submission. Elements include speculative and incorrect statements to officials and the public that do not accurately represent the facts of the current SLP or Enbridge's preferred Full Replacement option. Significant systematic lobbying that was not conducted in compliance with the City of Ottawa lobby requirements and targeted stakeholder management was undertaken by Enbridge to build support for a Full Replacement over alternatives requested by stakeholders. Overall, these efforts had little impact to gain broad support for a new large diameter natural gas pipeline to be place through the same downtown core of Ottawa. Continuous attempts to gain support letters in favour of the Full Replacement resulted in

[38] JT2.14
[39] EB-2022-0200 dec_order_EGI_2024 Rebasing_Phase I_20231221, Page 22 and EB-2024-0200 Exhibit I.2-ED-5.
[40] Like the system pruning pilots approved in EB-2024-0111.

little support. Even the letter from the TSSA highlighted that normal requirements are to simply mitigate issues found and they did not express any opinion in support of a full replacement. In fact, the required review letter from the TSSA for the proposed new pipeline is still pending[41]. This letter is typically filed with a Leave to Construct application and the fact that it is still outstanding does nothing to support Enbridge's claim that a replacement is required.

CAFES Ottawa is aware of Enbridge's stakeholder management plan[42] largely focused on lobbying City of Ottawa officials. Enbridge did not include those documents in its application, but did provide the related documents through the discovery process. Enbridge also allocated additional resources (e.g. articles in Citizen, Chamber of Commerce engagements, etc.)[43] in an attempt to build support for its preferred Full Replacement Option. Some examples have been included in this submission and almost unanimously[44], these efforts have failed to gain the intended support for building a new natural gas pipeline through downtown Ottawa, contrary to the City of Ottawa's Energy Evolution Net Zero Plan. The reasons are essentially the same as the last time Enbridge put this proposal forward and the Energy Transition has continued to accelerate since this Project was last declined in 2022.

There was a mixed reaction on Enbridge's proposed plan to build a replacement pipeline through the downtown of Ottawa and the normal support letter Enbridge typically files with its application was not provided by the City of Ottawa. Similarly, a proposed Motion put forward by one sympathetic Councilor (Tierney) to endorse Enbridge's proposed Full Replacement Option and withdraw the City of Ottawa's previously filed opposition to the Project was not supported[45] and resulted in the Motion being withdrawn and replaced with a simple Motion that only supported discussions in support of the City of Ottawa Energy Evolution goals (e.g. energy transition planning, energy efficiency and demand-side management programs). Enbridge requested that support for the proposed Project be provided by the City of Ottawa and it has refused to provide that endorsement[46]. The City of Ottawa continues to support its Energy Evolution plan and oppose implementing actions that are counter to reaching Net Zero by 2050.

[41] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 93 lines 3-11.
[42] JT2.17 including Attachments 1 and 2.
[43] Exhibit I.1-CAFES Ottawa-13; Exhibit I.1-CAFES Ottawa-10, Attachment 2;
[44] Minor exceptions exist such as support by one Councillor.
[45] The Councillor Tierney Motion put forward is found at CAFES Ottawa_Ltr_Exhibit I.1-CAFES Ottawa-14_20241030, Page 4. The replacement Motion following Council disagreement is found at Pages 5-6. Enbridge confirmed that these records match the Motions records that Enbridge has [Per Final Transcript for EB-2024-0200 Technical Conference October 31 2024 Page 49, line 11 to page 50, line 7]
[46] Including requesting a Motion that includes language in support of the Project per Exhibit I.1-CAFES Ottawa-14, Attachment 1.

Following the OEB Decision in 2022, Enbridge promoted its Pathways to Net Zero Emissions for Ontario report completed in June 2022 which suggested that expanding natural gas infrastructure in Ontario is the most cost-effective manner to achieve Net Zero by 2050[47]. This report was completed by Guidehouse for Enbridge and was the focus of a detailed review in EB-2022-0200. Due to errors, inaccuracies and misleading assumptions in the Enbridge Net Zero modeling and report, there were successive revised reports issues during the EB-2022-0200 proceeding[48]. In the end, Guidehouse confirmed that additional assumption corrections required resulted in the gas network (Diversified) scenario not actually achieving Net Zero[49] and additional costs excluded in the analysis made that scenario the most expensive[50]. Enbridge did not provide updates to the City of Ottawa that the Report revisions no longer provided the pipeline benefits claimed in the fall 2022 presentation and did not provide updated information to the City of Ottawa or other local stakeholders that the gas infrastructure scenario did not align with Net Zero by 2050 like Energy Evolution.

As noted, Enbridge provided ongoing coordination to Councillor Tierney over the course of several months[51], including after this application was filed[52]. None of this lobbying was filed by Enbridge as required in the City of Ottawa lobby registry[53]. Based on the information provided to Councillor Tierney's, he conducted a public radio interview in support of Enbridge's Full Replacement Option[54]. During this interview, he also indicated that the pipeline would not survive the winter of 2023 and that customers would not have natural gas available that winter unless the pipeline was replaced[55]. Even though this does not represent factual information related to SLP, Enbridge needed to respond on the radio program to validate that the pipeline is in fact safe and maintained like others in the system.

[47] Exhibit I.2-PP-42, Attachment 1 – September 2022 Slide deck to City of Ottawa on Enbridge Pathways to Net Zero Report. Additional references to achieving Net Zero with the gas pipeline system are included in many of the correspondence with City of Ottawa officials and the public, e.g. Exhibit I.1-CAFES Ottawa-10, Attachments 2 through 6.

[48] EB-2022-0200 Report versions included Version 1 filed October 31, 2022, Version 2 filed March 17, 2023 and Version 3 filed April 21, 2023.

[49] Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 6, page 75.

[50] Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 4, Page 144 lines 8-22 and page 168 line 10 – page 170 line 4.

[51] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 55 line 28 to page 56 line 6.

[52] Exhibit JT2.16 plus Attachments; Final Transcript for EB-2024-0200 Technical Conference October 31 2024 Page 55, line 12 to page 56, line 16.

[53] Examples include JT2.16 item 53+

[54] Radio interview is available per Exhibit I.1-CAFES Ottawa-14

[55] Exhibit JT2.16 plus Attachments; Final Transcript for EB-2024-0200 Technical Conference October 31 2024 Page 55, line 12 to page 56, line 16. Radio interview is per Exhibit I.1-CAFES Ottawa-14.

Documents on the record indicate that Enbridge actively lobbied at all levels in the City of Ottawa including the Mayor, Mayor's office, Councillors and staff. Enbridge suggested that it does not have access to the public records in the lobby registry to file as requested with the OEB[56], but CAFES Ottawa was able to publicly access the registry and confirm that only a small fraction of the Enbridge activities were submitted[57]. Enbridge confirmed lobbying at the sponsored events, including the Mayor's breakfast[58] supported by Enbridge. All these Project related stakeholder management materials (including the targeted plan) were only provided in response to intervenor requests during the discovery phase of this proceeding.

Correspondence often included false or misleading information in an attempt to garner City of Ottawa support for the Full Replacement Option. For example, one of the letters to the Mayor indicated that a new pipeline would support potential access to hydrogen and RNG which could help the City achieve its Energy Evolution Net Zero objectives[59]. This messaging was also publicly used in Enbridge's address at the Mayor's breakfast event[60] and correspondence with the President of Hydro Ottawa[61]. This is of course not correct and is misleading to all these stakeholders. Enbridge has confirmed that it has not been able to validate that any hydrogen would ever be used in the proposed pipeline. The topic of misinformation related to potential future use of hydrogen in Enbridge's system and its lack of a Net Zero pathway was thoroughly considered in Enbridge's recent Rebasing proceeding[62]. It was determined that the scenarios put forward by Enbridge (as prepared by Guidehouse) were neither Net Zero nor more cost-effective than the electrification scenarios going out to 2050. Enbridge also confirmed that it has not sought review or consideration from the OEB, TSSA or any other regulatory authority for hydrogen use in the proposed pipeline[63]. Hydrogen gas is only 1/3rd the energy density of natural gas which would also pose a theoretical challenge. Enbridge does not have the authority to blend RNG to serve specific customers in Ottawa[64]. Furthermore, Enbridge has confirmed that it has not actually undertaken any review of lifecycle carbon intensity for either hydrogen or RNG that it suggested to stakeholders would support Net Zero[65] in the City of Ottawa. Making unsupported or

[56] Exhibit I.1-CAFES Ottawa-13a.
[57] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 61 line 12 to page 62, line 22 and Exhibit I.1-CAFES Ottawa-13a.
[58] Exhibit I.1-CAFES Ottawa-14, Attachment 1.
[59] Exhibit I.1-CAFES Ottawa-10, Attachment 2.
[60] Exhibit I.1-CAFES Ottawa-10, Attachment 6, Page 3.
[61] Exhibit I.1-CAFES Ottawa-10, Attachment 7, Page 2.
[62] EB-2022-0200.
[63] Exhibit I.2-PP-36 and Exhibit I.2-PP-50.
[64] The role of RNG for the regulated utility is being considered in EB-2024-0111.
[65] Exhibit I.2-PP-41

inaccurate claims to garner support for a new Capital pipeline is contrary to the public interest. Information and decisions should be based on facts that can be substantiated.

Enbridge filed a letter from Ottawa Hydro indicating a 76% electrification focus at the time[66]. Ottawa Hydro's most recent Board and Management message reconfirmed Hydro Ottawa's continued support to do what it takes to help the City of Ottawa meet their Net Zero Energy Evolution objective[67]. Enbridge also confirmed that they are not electricity planning experts and do not want to suggest that Hydro Ottawa is not able to support electrification away from natural gas in alignment with the Energy Evolution objectives[68]. With the continuation of the work toward Energy Evolution, it is expected that the Ottawa Hydro Distribution Service Plan (DSP) to be filed in early 2025 with further align with the City of Ottawa Energy Evolution Net Zero by 2050 objectives. IESO is currently partnered with Hydro One and Ottawa Hydro on a DER Potential Study to support Regional Planning in the City of Ottawa and that is also expected to further advance City and Provincial goals toward electrification.

It has been clear that Enbridge never lost focus on moving forward its interest to replace the SLP even with the setback it received in 2022. Ongoing efforts have been focused primarily on a Capital replacement project rather than more modern alternatives that include monitoring and repairs. Repairs and section replacement have already been applied to portions of the SLP, reducing risk even from those included in included in the Quantitative Risk Assessment (QRA) Enbridge created and filed in this application. Enbridge's singular focus on a Full Replacement has undermined allocation of focus and resources needed to properly consider alternatives including those that align with IRP, DSM and City decarbonization goals.

On a similar approach, Enbridge activities have also been designed to increase pressure on the OEB to approve the Full Replacement. Shortly after the OEB Decision in 2022, Enbridge sent a letter to the OEB to notify them that they were proceeding with a section of SLP replacement[69] (one of several repairs or replacement sections recently completed to mitigate specific issues identified). The letter largely reiterated information included in the previous application and actions Enbridge was undertaking to mitigate a section of pipeline crossing Highway 417. Inspection for this particular section had identified local issues related to coating degradation, likely due to local soil contamination[70]. As is typical of inspection and maintenance for a pipeline, this specific

[66] Exhibit B, Tab 3, Schedule 1, Attachment 2,
[67] CAFESOttawa_IR_AppendixC_OttawaHydroCEOmessage_20240906, Page 2.
[68] Exhibit I.2-CAFES Ottawa-18.
[69] Exhibit B, Tab 1, Schedule 1, Attachment 1.
[70] Enbridge has not been able to determine the exact cause of coating degradation in this area per Exhibit I.1-PP-14.

section was identified for mitigation. Due to the location of this section (highway crossing), a replacement for the impacted section was installed.

This approach is quite normal and reasonable for a pipeline (i.e. inspect and repair, if required). However, Enbridge also used this OEB letter as an opportunity to escalate the risks profile of the SLP, knowing that Enbridge would be filing the Project application again. Enbridge referenced critical failures of transmission pipelines in the US as a way to escalate the risk profile of the SLP. Although Enbridge did not say that the SLP is the same as the examples included in the letter, this was certainly inferred[71]. Nothing could be further from the truth and inclusion of these examples in the letter was misleading without including the real details. First off, the SLP is a distribution pipeline, not a transmission pipeline like the US examples. Secondly, the specifics of these examples matter and were excluded from the letter. It is fair to highlight the potential risk and danger associated with natural gas pipelines in general, but when specific examples are used, the OEB deserves the actual details. None of these transmission line ruptures can be equated with the SLP distribution pipeline. They all occurred in different US locations, under different circumstances and were caused by specific issues that can't be generalized across pipelines in Ontario. The Consumers Energy example referenced in the OEB letter involved the utility cleaning the transmission pipeline when an ignition source resulted in the incident[72]. Another example was an Enbridge transmission line ruptured by a significant landslide in Kentucky[73]. Certainly not a risk in downtown Ottawa. Another example was due to the utility's (El Paso Natural Gas Company) negligence in lack of proper pipeline design, construction and operation[74]. Enbridge was asked to provide additional details on these examples to the OEB and declined to do so.

Enbridge is testing the bar that would enable it to do a full Capital replacement of the existing SLP. Enbridge suggested that it thought that the previous application should have been approved by the OEB[75], despite setting an insufficient basis for such a Decision. Enbridge indicates that these expectations were based on the historical level of effort required to achieve such approvals. Enbridge targeted a low historical bar, rather than doing a comprehensive and objective assessment based on information and requirements that represent modern expectations and alternatives. This demonstrates the need for the OEB to continue to use modern requirements in its decisions and discourage Enbridge from selectively falling back on old precedents that support expanding Capital expenditure even when they do not align with the Energy Transition in Ontario. Behaviors and challenges related to excess returns and excess Capital

[71] Exhibit I.1-PP-26.
[72] PollutionProbe_IR_AppendixA_OEBletterArticle1_20240906.
[73] PollutionProbe_IR_AppendixA_OEBletterArticle2_20240906
[74] PollutionProbe_IR_AppendixA_OEBletterArticle4_20240906
[75] Exhibit I.1-STAFF-4.

spending are well documented in the OEB's Cost of Capital proceeding[76]. Inspection and repair do not contribute incremental utility earnings the way new Capital expenditures do.

The full range is resources were made available for Enbridge to pursue support for the SLP replacement option, from the President to the front lines of supporting departments[77]. Enbridge's focus has been squarely on the Full Replacement Option even directly following the OEB rejection of the Project in 2022[78], including when the custom work began on the QRA report in Q2 2022[79].

Significant ratepayer funding was also focused on City of Ottawa events which served as an opportunity to advance lobbying efforts[80]. When Enbridge has a specific goal, there is a singular focus across departments to achieve that goal. The same results do not apply for other areas that do not contribute to increased profitability, like IRP, DSM and supporting municipalities on tangible decarbonization. The OEB has documented the lack of effort and tangible results in those other areas and is looking to mitigate the imbalance[81]. Enbridge has also reconfirmed the lack of any tangible IRP results specifically for this Project[82]. No plan has been provided to the City of Ottawa since the OEB's previous Decision highlighted the need to deliver IRP, targeted DSM or decarbonization results (as targeted by Energy Evolution) in the City of Ottawa.

In their Decision and Order, the Ontario Energy Board (OEB) denied the application, finding that: "…the need for the Project and the alternatives to the Project have not been appropriately assessed. Enbridge Gas has not demonstrated that the pipeline integrity is compromised, and that pipeline replacement is required at this time. The OEB urges Enbridge Gas to thoroughly examine other alternatives such as the development and implementation of an in-line inspection and maintenance program using available modern technology, and propose appropriate action based on its finding as part of its next rebasing application."[83]

Enbridge indicated that "…in line with the OEB recommendation, the Company initiated a "Targeted Integrity Program" to collect pipeline-specific condition data to gain a more

[76] EB-2024-0063.
[77] Interactions also included Ottawa Hydro per Exhibit I.1-CAFES Ottawa-10, Attachment 7.
[78] EB-2020-0293
[79] Exhibit I.1-STAFF-1, Attachment 2 timeline.
[80] Summary details are included below.
[81] A review of Enbridge IRP compliance has been included to the scope of Enbridge's Rebasing (Phase 3). DSM underperformance was noted in the EB-2021-0002 Decision and is a focus of EB-2024-0198. Updating of Enbridge materials to reflect current and correct information (including alternatives to natural gas like ASHPs) was included in the OEB approved Settlement Proposal for EB-2024-0111.
[82] Exhibit I.2-PP-40.
[83] EB-2020-0293, Decision and Order (May 3, 2022), p. 3.

comprehensive understanding of the SLP's condition and risks[84]. Enbridge suggests that this would satisfy the gaps in previous assessment related to the SLP. However, applying a custom QRA approach linked to supporting Full Replacement only, is less credible than developing and applying more objective improvements to the Integrity Management Program for distribution pipelines[85]. Under the custom approach data was extrapolated in Enbridge's analysis including the most problematic defects that have already been mitigated through repairs or sectional replacements. Similarly, leak information to support the condition assessment which actually relates to peripheral assets, not the actual XHP steel St. Laurent Pipeline[86]. It was confirmed that no leaks associated with the SLP were identified[87]. Enbridge's custom approach extrapolated data (some of which is not even related to the SLP or is no longer relevant) to make the risk for the pipeline sounds as bad as possible, supporting the preferred Full Replacement. Of course, Inspection and Repair is a real and viable alternative and Enbridge validated that the Inspection and Repair Option is able to mitigate the risks to a level that could be considered acceptable"[88]. Given the benefits that the alternatives bring, Enbridge focused on its NPV analysis calculations as a way to illustrate which option it considered better.

[84] B/1/1, page 6.
[85] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 73 line 27 to page 74 line 1.
[86] Exhibit I.2-ED-10 Table 1. The first item in the table relates to the section of SLP replaced and the remaining leaks identified are not related to the XHP steel pipeline proposed to be replaced.
[87] Exhibit I.1-SEC-2, Attachment 1, Page 9.
[88] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 85, line 26 to page 86 line 5.

4) Project Need

This project has been put forward for OEB consideration solely based on the SLP age and forecasted condition. This is the same suggested basis put forward in the previous application[89]. Based on the previous denial of the Project by the OEB, Enbridge undertook some additional inspection and mitigation activities, including replacement of pipeline sections that required mitigation to Enbridge.

4.1 – Integrity Considerations

Similar to the EB-2020-0293 application, Enbridge's suggests that the existing pipeline needs to be entirely replaced by a brand-new pipeline based on integrity issues. This is despite several sections of the current pipelines being recently repaired or replaced, reducing the overall risk factors associated with the SLP. Enbridge applied a custom approach to its recent integrity assessment (QRA) which extrapolates Enbridge model inputs into a probability assessment applied to the entire length of the SLP, rather than specifically targeting potential anomalies. The data included risks to the worst sections of the SLP that were already mitigated or replaced. Enbridge's experience with the SLP has clearly shown that it is not under a homogenous set of environmental factors or risks, and that extrapolating these across the entire SLP is not appropriate.

The OEB correctly identified problems and gaps in Enbridge's Asset Management Program related to distribution lines in the previous St. Laurent Replacement Decision[90]. The OEB is aware of Enbridge's systematic bias toward Capital expenditures and pipeline replacements instead of applying a more detailed integrity management plan to target and mitigate specific issues in a more cost-effective manner. The Capital bias has also been a barrier to getting tangible IRP results and other programs that do not increase the need for Capital spending (e.g. DSM). The OEB has previously noted that the current approach by Enbridge is not sustainable in the modern world of Energy Transition and increases risks of stranded assets[91].

The EB-2020-0293 Decision recommended improvements to Enbridge's distribution integrity program. Enbridge has proposed an updated approach to its distribution integrity program for steel distribution pipelines in an attempt to avoid Capital replacements and extend the life of existing pipelines. The OEB has approved eDIMP related variance accounts for this purpose in the recent Enbridge Rebasing Phase 2 proceeding[92]. However, the enhanced eDIMP approach has not been applied to any

[89] EB-2020-0293
[90] EB-2020-0293.
[91] EB-2022-0200 dec_order_EGI_2024 Rebasing_Phase I_20231221, Page 22 and EB-2024-0200 Exhibit I.2-ED-5.
[92] EB-2024-0111 Exhibit N Tab 1 Schedule 1 Page 43 and EB-2024-0111 Rate Order Appendix C Page 45.

pipelines at this time and a custom approach was developed by Enbridge to support the Project[93]. This custom approach has not been used previously and is not proposed to be used again[94]. Enbridge was not able to update the previous Asset Health Index for the SLP[95].

Figure 17: St. Laurent Pipeline Asset Health Index

Instead, Enbridge staff plotted an Operational Risk Assessment Matrix for inclusion in this application. This diagram is intended to graphically display the consolidated results of the Enbridge integrity assessment[96], called a QRA for this custom assessment.

Operational Risk Assessment Matrix

Although the background template is from an Enbridge manual, plotting the pipeline information on this diagram is a manual and subjective exercise prone to interpretation and variation. This exercise can result in 'garbage in, garbage out', unless it is done in an objective manner that is replicable using credible information. The top right of the diagram is visually intended to represent problems that suggest a need for immediate

[93] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 73 line 27 to page 74 line 1.
[94] Exhibit I.1-PP-30a
[95] Exhibit I.1-CAFES Ottawa-11 and EB-2020-0293 B/1/1, Page 42.
[96] B/1/1 Attachment 2, Page 7.

mitigation (e.g. repair or replacement), while the bottom left represents no material concerns (outside of the regular integrity risk that exist even for brand new pipelines, like third party damage)[97]. The space in the middle is even more subjective, which is where Enbridge staff has plotted information for the SLP.

Although the template changed from the previous Health Index, they are both subjective templates populated using Enbridge staff judgement. When the Enbridge preferred solution is a Full Replacement, it has the potential to bias how this diagram is populated. For example, the highest likelihood issues are labeled as F1 at the top of the diagram. F1 is related to small leaks, which as noted are peripheral and not actually on the SLP proposed to be replaced[98]. It was confirmed that no leaks associated with the SLP were identified[99]. A diagram that is representative of the actual SLP would look much different that this diagram provided by Enbridge above. Similarly. The next most severe issue illustrated is plotted as OD, which is a theoretical customer loss scenario. This theoretical scenario was assessed in EB-2020-0293 and was determined to not represent a credible estimate[100]. As previously confirmed, the hypothetical impacts for a worst-case catastrophic failure on a peak design day is based on input from a historical incident that was driven by factors not relevant for the St. Laurent pipeline[101]. The reason why OD is such a wide band is that it is a broad range of theoretical impacts ranging from no impact to a hypothetical catastrophic failure on a peak design day. As a theoretical construct, OD could be plotted across the entire spectrum (from D1 to D7) for any similar pipeline and does not hold any specific value for the SLP analysis. Even though this data is based on a theoretical exercise, approximately a quarter of customers currently served by the SLP are ex-franchise and the agreement with Gazifere does not commit the regulated Ontario utility (Enbridge Gas Distribution) any ability to recover costs for the pipeline, or vice-versa. It is unclear how ex-franchise customers fit into this type of analysis when there is no agreement to share costs and risks. Gazifere is also served by an additional cross-border connection and details on those details have been proposed to be included by FRPO, so they will not be covered in detail here. The agreements with Gazifere were filed in response to a stakeholder request and provide no balance of risks and costs for Ontario ratepayers. Ontario ratepayers are effectively subsidizing Enbridge's ex-franchise affiliate and this subsidy would be grossly increased based on Enbridge's Full Replacement proposal[102].

[97] Exhibit JT2.4, Attachment 1, Page 5.
[98] Exhibit I.2-ED-10 Table 1. The first item in the table relates to the section of SLP replaced and the remaining leaks identified are not related to the XHP steel pipeline proposed to be replaced.
[99] Exhibit I.1-SEC-2, Attachment 1, Page 9.
[100] Updates to the estimate including probability weighting were provided in EB-2020-0293.
[101] EB-2020-0293 Exhibit I.FRPO.3
[102] Exhibit I.1-CAFES Ottawa-7 Plus Attachments.

Finally, the last plotted element on the Operational Risk Assessment Matrix is HS2. This theoretical scenario that applies to ignition sources near leaks for any generic pipeline. As noted above, there were no leaks found originating from the actual SLP. It was confirmed that no leaks associated with the SLP were identified[103]. Although the Operational Risk Assessment Matrix could be a useful tool when populated objectively with relevant and pertinent information, the evidence provided by Enbridge does not meet this reasonable standard to drive a decision toward a Full Replacement Option, particularly when the Inspection and Repair Option is viable and more cost-effective.

Enbridge highlighted the CSA Z662 (including Annex O) throughout its filing as a basis for its integrity assessment. CSA codes are not prescriptive and provide flexibility to pipeline owners and operator. The CSA does not review or approve risk matrices, or, for that matter Company specific documents[104]. In fact, The CSA's mandate does not include corresponding with pipeline operators on specific issues and no such correspondence with CSA has taken place[105]. CSA Z662 indicates "The requirements of this Standard are applicable to the operation, maintenance, and upgrading of existing installations. It is not intended that such requirements be applied retroactively to existing installations…". It was confirmed that the CSA code is not a basis to support the Full Replacement Option.

The TSSA does not conduct integrity reviews on pipelines as a standard practice and has not done so previously for any project[106]. It is not the TSSA's role to operate, monitor or identify mitigation measures and the conclusion of the TSSA review does not indicate that a Full Replacement is required. Enbridge has extrapolated that the TSSA review implicitly endorses Enbridge's preferred option because one of the peripheral attachments it sent TSSA was the OEB Application. The OEB application is 592 pages for the main application and over 900 more pages for Appendix F supplemental material. Clearly, the TSSA focus is on the Inspection and Maintenance options rather than ancillary materials. This is why TSSA does not provide any comment or support for the Full Replacement Option in its correspondence.

Enbridge confirmed that the TSSA did not provide comment on whether repair or replace is a suitable option for the affected sections of the pipeline, they simply indicated that in the area which require action, some form of mitigation is required[107]. Enbridge is responsible for putting credible analysis together to consider alternatives objectively[108] and in the cased of a Leave to Construct, it is the OEB's role to consider

[103] Exhibit I.1-SEC-2, Attachment 1, Page 9.
[104] Exhibit I.1-PP-30e.
[105] Exhibit I.1-PP-7a.
[106] Exhibit JT2.24.
[107] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 135 lines 8 - 12.
[108] When they can simply proceed within their authority and even in the case of the section replaced as outline in the letter to OEB per Exhibit B, Tab 1, Schedule 1, Attachment 1.

what alternative is most cost-effective and appropriate[109]. The required review letter from the TSSA for the proposed new pipeline is still pending[110]. This letter is typically filed with a Leave to Construct application and the fact that it is still outstanding does nothing to support Enbridge's claim that a replacement is required.

Enbridge previously indicated that there are some isolated portions of the existing pipeline that may require monitoring and potentially repair in the future[111]. This is normal day to day activity and can be included in the regularly scheduled work approved in the capital and O&M envelopes approved by the OEB. In fact, this is exactly what has occurred since this recommendation was made in 2022. Several sections of the SLP were repaired or replaced. Examples include a significant section along St. Laurent Blvd.[112] and a section crossing Highway 417[113]. Enbridge also undertook maintenance and repair and corrected cathodic protection which was previously inadequate[114]. It is the job of Enbridge to monitor and prioritize isolated repairs as needed, not an issue for others including the OEB.

Enbridge has identified the age of the SLP as a key factor for its replacement[115]. There are several determining factors to be considered when assessing the integrity of natural gas pipelines. Although the age/vintage of pipelines is a significant determining factor, it is not necessarily as critical as the distinct stresses placed upon pipelines as a result of their unique location or the resulting actual condition of the pipelines themselves[116]. There are also similar pipelines across Ontario that are much older that SLP[117]. This pipeline is no different than other similar pipelines and does not justify an entire replacement. The St. Laurent project is not special from thousands of kilometers of other similar vintage steel pipelines in the system. The most current estimate of similar or older pipelines left in the Ontario system is 10,900 km[118] of similar active steel pipe main 60 years of age or older in the Enbridge Gas distribution system across Ontario. This pipeline has been on Enbridge's list for consideration since 2015[119]. The relative integrity of the SLP was considered better than other similar lines, even before certain sections of SLP were repaired or replaced recently.

[109] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 134 lines 22 – 28.
[110] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 93 lines 3-11.
[111] Final Transcript EB-2020-0293 EGI LTC TC March 03 2022. Page 140, lines 25-28.
[112] Exhibit I.1-STAFF-1, Attachment 1.
[113] As outlined in the OEB letter per Exhibit B, Tab 1, Schedule 1, Attachment 1.
[114] Exhibit I.1-FRPO-20 and Exhibit I.1-STAFF-4.
[115] CAFESOttawa_IR_AppendixA_StLaurentArticle_20240906, Page 4.
[116] Exhibit I.1-PP-34.
[117] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 53, lines 22 – 28.
[118] JT2.14
[119] EB-2020-0293 Exhibit I.FRPO.15

The CSA requirements[120] allow for monitoring and repair, which is the most cost-effective option. Enbridge is not required or committed to replace the existing pipeline based on safety and integrity issues and this action was not recommended by TSSA[121] or Enbridge's third party reviewer, DNV[122]. Enbridge indicated that if it did not get Leave to Construct approval in EB-2020-0293 proceeding it would go back and reassess its IRP options[123].

Enbridge indicated that it had a third-party review of its QRA done by DNV. Enbridge filed a Memo report in its application and through discovery it was identified that there was a more fulsome report that was not filed. This work was conducted through an ad-hoc time and materials agreement with Enbridge and the report/memo was developed collaboratively with Enbridge over a five-month period and multiple collaborative drafts[124]. As the OEB is aware, there was no ability through the proceeding to test the work done by DNV and what changes were requested by Enbridge. It is suggested that little weight be given to the DNV materials. DNV indicated that the "Enbridge study has evaluated the 11.2 km pipeline as one segment with respect to frequency and then coarsely evaluated the range of potential consequence impacts[125]" in a generic basis consistent with what is documented in this submission. Regardless of how independent this review really was, in the end the ad-hoc report simply only indicated that: "Additional detailed risk assessment is not considered necessary at this time or to significantly alter the risk categorization. Detailed risk evaluation may be conducted in future if risk prioritization is needed to guide priority of remedial actions; however, this may require more detailed consequence estimation than currently evaluated[126]". This is consistent with the recommendations in this submission, that ongoing monitoring and mitigation (as required) is appropriate, instead of support for a Full Replacement.

[120] EB-2020-0293 Exhibit I.ED.10
[121] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 135 lines 8 – 12; When they can simply proceed within their authority and even in the case of the section replaced as outline in the letter to OEB per Exhibit B, Tab 1, Schedule 1, Attachment 1 and Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 134 lines 22–28.
[122] Exhibit I.1-PP-24, Attachment 5, Page 8 and Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 137 lines 14-22.
[123] Final Transcript EB-2020-0293 EGI LTC TC March 03 2022. Page 200, lines 3-17.
[124] EB-2024-0200, Exhibit I.1-PP-24, Attachment 5.
[125] Exhibit I.1-PP-24, Attachment 5, Page 7.
[126] Exhibit I.1-PP-24, Attachment 5, Page 8.

4.2 – Energy Transition Considerations

Energy Transition is under way and accelerating. The OEB is already aware of these changes and is taking proactive actions to align OEB activities with achieving this transition. Expert consensus has supported this fact, including in the recent Cost of Capital[127] and Enbridge Rebasing proceeding. Enbridge has confirmed that Energy Transition, declining average use and other factors affecting customers will decrease the economics of a project below what is expected[128]. Enbridge has also identified the loss of customer due to the Energy Transition as a fundamental business risk[129]. Enbridge confirmed that as customers move to other options, the remaining customer costs would increase[130]. The OEB confirmed that "The risk that arises from the energy transition results from gas customers leaving the gas system as they transition to electricity to meet energy needs previously met by natural gas. This departure gives rise to assets that are not fully depreciated but are no longer used and useful. This results in stranded asset costs that Enbridge Gas would seek to recover from the remaining gas customers. This in turn would increase rates for those gas customers, leading more customers to leave the gas system, potentially leading to a continuing financial decline for the utility, often referred to as the utility death spiral"[131].

Enbridge used three temporal cases for its NPV analysis. They are as follows:

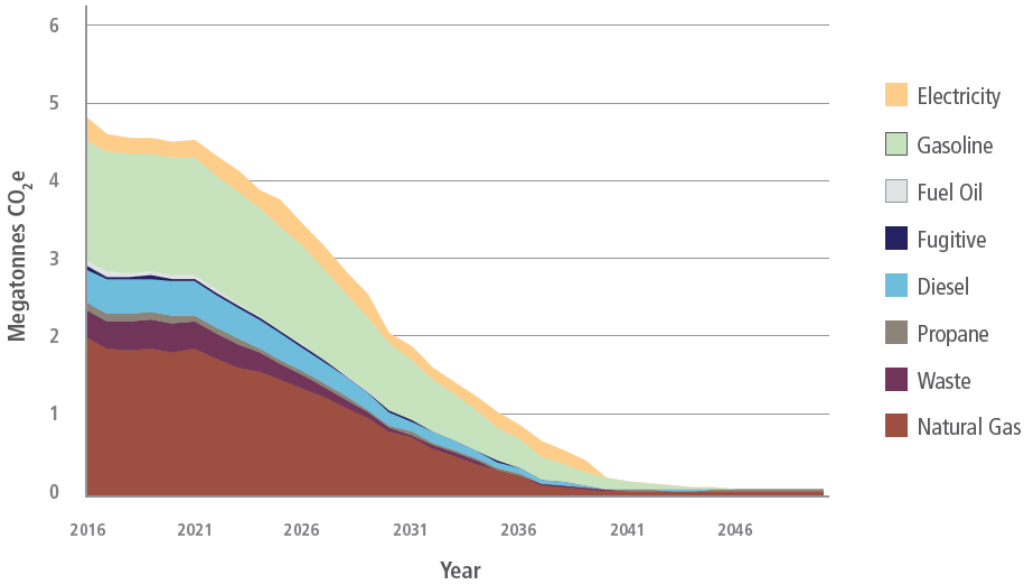
Case	Time	SLP No longer Needed
Case A	63 years	2089
Case B	42 years	2068
Case C	31 years	2057

As noted below, it is expected that the SLP use will decline in the future and would likely become stranded by 2050 when the transition to the Net Zero alternatives has occurred. Enbridge did not use a 2050 case, but Case C is the closest and most likely of the three temporal scenarios put forward by Enbridge. 2057 includes a large buffer of time to provide a safety factor even if the Energy Evolution Net Zero transition is slower than currently forecasted. As the OEB is aware, the Energy Transition is accelerating and it is very possible that results will be achieved before those forecasted in the Energy Evolution Plan. Case A which has the SLP 'used and useful' in 2089 or beyond is not a credible case given best available current information and reasonable assumptions. It is important to note that if the Full Replacement Option were to be implemented as

[127] EB-2024-0063
[128] Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 10, Page 182 lines 13 - 21 and Page 183 lines 16-21
[129] Enbridge's primary argument for a change financial parameters in EB-2022-0200 and also noted by the OEB on page 20 of the Decision.
[130] Final Transcript for EB-2024-0200 Technical Conference November 13, 2024, Page 15, line 24 to page 16, line 8.
[131] EB-2022-0200 Rebasing Decision pages 20 – 22 and EB-2024-0200 Exhibit I.2-ED-5.

proposed, the new Capital assets would not even be fully depreciated until 2086[132]. This has a high likelihood of leading to stranded assets. If the OEB approves the Project as prudent, it is also likely that stranded asset costs would fall on the back of Ontario ratepayers (assuming there are any gas ratepayers left by 2086).

The City of Ottawa has identified a steady decrease in future use of natural gas demand over the next decade and out to 2050[133].



The largest customers identified by Enbridge on this pipeline are also on this decarbonization trend for decreased natural gas demand[134]. The City of Ottawa Energy Evolution Plan and objectives reviewed the last time this Project was brought before the OEB has not changed[135].

This Energy Transition forecast aligns with best available information transitioning away from natural gas by 2050 and even aligns directionally with Enbridge's own Net Zero Pathways for Ontario report prepared by Guidehouse[136]. Regardless of whether you use the City of Ottawa forecast or the Enbridge/Guidehouse Net Zero forecast, a new SLP

[132] Exhibit I.2-ED-19.
[133] Energy Evolution Pan, Page 25. Link to Energy Evolution Plan provided in B/3/1, Page 3 - OTTAWA'S COMMUNITY ENERGY TRANSITION STRATEGY – FINAL REPORT and EB-2020-0293 SEC_CityEvidencePackage_EGI_St Laurent_20220117. Page 116.
[134] EB-202-0293 SEC_CityEvidencePackage_EGI_St Laurent_20220117. Pages 211, 184, 183, 211 and 213.
[135] Link to Energy Evolution Plan provided in B/3/1, Page 3 - OTTAWA'S COMMUNITY ENERGY TRANSITION STRATEGY – FINAL REPORT
[136] EB-2024-0200 Exhibit I.2-PP-50 and EB-2022-0200 Exhibit 1.10.5.2_Pathways to Net-Zero Emissions for Ontario_BLACKLINE_20230421, Page 5, Figure ES-2 per reference in Exhibit I.2-PP-44.

replacement would become stranded by 2050, well before it is fully depreciated in 2086[137].

Enbridge or other parties may try to discredit the factual basis for declining natural gas use that will occur in the City of Ottawa over the next decade or more[138]. Net Zero by 2050 as identified by Ottawa is a credible timeframe and in fact some communities in Ontario are forecasted to transition at an even faster rate. Even in the unlikely case that some activities take slightly longer than forecasted, the pipeline will still be a stranded asset decades before it is fully recovered from Ontario Ratepayers in 2086[139]. Enbridge confirmed that it has no evidence to indicate that the City of Ottawa will not achieve the Energy Evolution Plan and target of Net Zero by 2050[140].

Enbridge notes that the St. Laurent pipeline is located in a dense urban corridor and it supplies natural gas to critical infrastructure such as hospitals, Parliament Hill, RCMP Headquarters, City Hall, the Cliff Heating Plant, and the University of Ottawa. The large customers are on a decarbonisation trajectory and none of these large customers even use natural gas for back-up purposes[141]. This is similar information to what was provided in the previous application. The decarbonisation efforts already underway in the City of Ottawa including these large customers is well documented[142]. These projects and activities continue to progress and some are already complete. Pollution Probe offered the OEB an update through filing even more timely evidence on the progress of decarbonisation activities and the resulting energy transition impacts in the City of Ottawa. The trend is clear and the OEB deemed that this evidence was not required for this proceeding. The acceleration of the Energy Transition is well known to the OEB and has become inextricably linked to OEB proceedings, policy initiatives and even recent mandate letters. Energy Evolution and customer decarbonization actions are particularly relevant in areas of Ontario with Net Zero plans. This activity was just recently reconfirmed in the City of Ottawa Motion which favoured advancing activities aligned with the Energy Evolution Plan over building a new natural gas pipeline[143].

Enbridge has not undertaken a demand forecast for natural gas by customers in Ottawa or Quebec over the amortization period (2086) of the proposed new pipeline. Enbridge has only applied a generic regional 20-year forecast with escalators that do not reflect

[137] Exhibit I.2-ED-19.
[138] Enbridge suggested that some Energy Evolution activities are behind schedule, but did not provide a full assessment or include activities that are also ahead of schedule. In the end, Enbridge confirmed that they have no reason to indicate that Energy Evolution will not be successful.
[139] Exhibit I.2-ED-19
[140] Exhibit I.2-PP-39
[141] Exhibit I.1-EP-4
[142] Details were provided in EB-2020-0293 including the summary by the City of Ottawa per EB-2020-0293 Ottawa 2022 03 24 - Letter of Summation to OEB - St. Laurent LtC (Case Number EB-2020-0293).
[143] Recent Motion per CAFESOttawa_Ltr_Exhibit I.1-CAFES Ottawa-14_20241030, Pages 5-6.

the specific circumstances of the area served by the SLP or any consideration of the Energy Evolution/Energy Transition and stranded asset risk[144]. The Enbridge 20-year forecast included a small generic adjustment related to Energy Transition factors as discussed in the Rebasing proceeding (EB-2022-0200)[145]. Stakeholders questioned the lack of credible Energy Transition impacts in Enbridge's forecasting and the risks associated with over-forecasting.

Enbridge indicated that it did not undertake a demand forecast for the area served by the SLP because it is complex and would take time and effort[146]. Given the size, cost and effort Enbridge is proposing to build a new pipeline which has a high potential to become a stranded asset, it is a reasonable assumption that prudent planning should have included a specific demand forecast for the proposed pipeline over the period it is proposed to be recovered from Ontario ratepayers.

The OEB does not approve Enbridge's AMP which includes Enbridge's current potential universe of projects for Enbridge to prioritize Capital spending. It is common for projects to be dropped or added as information changes or other options become available. The OEB most recently rejected Enbridge's proposed 2024-2028 Capital envelope proposal to drive better project prioritization and to reduce excess Capital spending[147]. The OEB has commented on Enbridge's lack of stranded asset risk consideration in the AMP process that includes the St. Laurent Replacement Project[148]. A more effective use of alternatives to new Capital pipelines is more cost-effective and reduces the risk of stranded assets. Natural gas demand does not need to go to zero in order to strand gas pipelines like the proposed Project.

The City of Ottawa has been requesting that Enbridge develop an IRP plan and identify tangible IRP projects (plus complimentary increased targeted DSM) in alignment with the City's Energy Evolution plan even before the OEB denied Project approval in 2022[149]. Despite the opportunity and repeated requests, no IRP projects or targeted DSM have been developed and deployed by Enbridge since 2021 when the City first started making increased requests that this be a focus. This opportunity and need still exists today[150]. Enbridge highlights that it had many meetings with the City, but these

[144] Exhibit I.2-PP-40; Exhibit I.2-PP-46; Final Transcript for EB-2024-0200 Technical Conference November 13, 2024 Page 62 line 25 to page 63 line 17.
[145] Exhibit JT2.12.
[146] Exhibit I.2-PP-46b.
[147] A summary of details is included in EB-2020-0091 EGI_AMP_2025-2034_20241108, Page 17, Section 1.6.
[148] Recent examples include EB-2022-0200 dec_order_EGI_2024 Rebasing_Phase I_20231221, Page 2 and EB-2024-0200 Exhibit I.2-ED-5.
[149] Examples include: Exhibit I.2-PP-42, Attachment 1, Page 40, and EB-2021-0002 CityofOttawa_LtrComment_DSM_October_2021.
[150] Council Motion supports action toward Energy Evolution Net Zero by 2050 per CAFESOttawa_Ltr_Exhibit I.1-CAFES Ottawa-14_20241030, Pages 5-6.

meetings often focused on trying to persuade the City staff to support the Full Replacement Project rather than a credible assessment of IRP plans or methods to maximize DSM results[151] in alignment with the Energy Evolution Net Zero by 2050 objectives. The OEB mandated Enbridge to cease its practice of restricting customers from DSM incentives if they were using them to move off natural gas[152]. Although the OEB has required that Enbridge provide incentives for customers using them to move off natural gas, this information has not been effectively communicated to consumers, including in the City of Ottawa. There is no evidence that there has been any tangible progress on IRP projects or targeted DSM in the City of Ottawa. Referencing the number of meetings instead of a tangible plan and actual results is a poor substitute.

Enbridge is using erroneous or misleading information to consider alternatives to natural gas, such as the benefits and capacity of a cold climate air source heat pump (ccASHP). Enbridge quoted outdated information several years ago during the Rebasing Phase 1 proceeding[153] and experts provide modern, correct information that Enbridge should be using. Enbridge has been aware that there is concern about using correct and objective non-gas information for consumers and stakeholders[154]. It was surprising and alarming to see the same misinformation being presented recently in this proceeding. The Energy Transition witness panel Enbridge put forward in the Technical Conference stated that a ccASHP is not able to handle cold Ottawa weather and therefore it is assumed that natural gas will always be needed. This is factually incorrect, even for the coldest peak day in Ottawa. Enbridge confirmed that the pipelines are designed for the coldest day on record in past 40 years (-32.5 C for Ottawa)[155]. It was confirmed in the Rebasing proceeding by external experts that a ccASHP can provide heating in that range. Furthermore, real customer experience in the City of Ottawa reconfirmed that a ccASHP can provide sufficient heating without any back-up, even on the coldest Ottawa peak day[156]. Given that electric heat pumps (even based on current technology which continues to rapidly improve) are much more cost-effective than natural gas[157], plus provide additional benefits of more efficient air-conditioning, it is reasonable to forecast the trend for conversions off natural gas to

[151] The OEB noted that it expects Enbridge to do more on DSM in its EB-2021-0002, which included a specific request that Enbridge increase efforts in the City of Ottawa per EB-2021-0002 CityofOttawa_LtrComment_DSM_October_2021

[152] EB-2021-0002 Dec_Order_EGI_DSM Plan_20221115_signed, Page 3.

[153] Final Transcript EB-2022-0200 Enbridge Gas Rebasing Vol 11, Page 74 lines 16-28

[154] The OEB approved Settlement Proposal for EB-2024-0111 has required Enbridge to cease using marketing materials until Enbridge updates and files materials to reflect current and correct information (including alternatives to natural gas like ASHPs).

[155] Exhibit I.2-PP-42, Attachment 1, Page 50.

[156] CAFESOttawa_Correspondence_Attachment_20241122.

[157] Canmet recent reporting indicates that heat pumps savings are 60% over the standard gas heating scenario [Exhibit I.2-PP-51 and PollutionProbe_IR_AppendixG_CanmetReport_20240906].

continue accelerating. Even IESO has been including ccASHPs in their programs for some time and has continued for their new accelerated DSM program launch[158].

Integral Engineering was retained on an ad-hoc basis to undertake a Monte Carlo analysis in coordination with Enbridge based on specific assumptions provided by Enbridge[159]. Using Monte Carlo analysis for this type of long-term predictive forecast is challenging, particularly with a narrow, limited data set and specific constraints as noted by Enbridge[160]. Monte Carlo analysis is only statistically valid for larger, more stable datasets that have a high correlation with what is expected in the future. Enbridge analysis was based on - HER+ Program Data January 1, 2023 to March 22, 2024[161]. The very narrow range of data is not a valid predictive extrapolation of the accelerating Energy Transition and also does not include increasing awareness including the IESO heat pumps programs available in the City of Ottawa.

Enbridge decided to use gas disconnections as a proxy, rather than doing Monte Carlo analysis on the use of gas which may have more accurately shown the declines in natural gas use migrating to zero in alignment with the City of Ottawa's Energy Evolution forecast. Using gas disconnections as a proxy is a poor indicator since many customers choose to remain temporarily connected for a few years following installation of an ASHP, even if they are not using natural gas[162]. Enbridge charged a fee to disconnect until 2024 and information on this change to no fee has not been communicated broadly to customers at this time[163].

Although the Integral Monte Carlo modeling is not a good gauge of the future, it is interesting to note that even this narrow analysis included a scenario that would align with high transition to heat pumps and it resulted in 100% of customer leaving the gas system between 2035 and 2045[164]. This kind of trend is more consistent with other objective sources, including Energy Evolution.

[158] Under various SaveOnEnergy programs including Home Renovation Savings Program | Save on Energy
[159] Day 3 Technical Conference Schedule EB-2024-0200 PDF, Page 46, line 12 to page 47, line 9 and JT1.15.
[160] Exhibit I.2-PP-45.
[161] B/3/1 Attachment 1, Page 18.
[162] CAFESOttawa_Correspondence_Attachment_20241122. Pollution Probe has also received queries from gas customers about disconnection fees if they disconnect from gas and with the Enbridge policy changes in 2024 to remove disconnection fees, it will be easier for consumers to take that action.
[163] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 127, line 25 to page 128, line 2.
[164] Exhibit B, Tab 3, Schedule 1, Attachment 1, Page 1, Case 6.

5) Project Alternatives

It is evident that the Full Replacement Option that essentially follows the current SLP routing was determined early in the process by Enbridge to be the preferred option (same as previous application rejected by the OEB) and this constrained a proper assessment of options and related costs, benefits and impacts. Even the Environmental Reports (including route selection and study area analysis) were just updates to the analysis done for the application made in 2021.There are three topics below highlighting the systematic bias toward the Full Replacement solution instead of objectively considering other viable options, as required. The categories are:

- Route Alternatives and Preferred Route Selection
- IRP Considerations
- NPV Analysis & Results.

5.1 – Route Alternatives and Preferred Route Selection

Enbridge retained Dillon Consulting to prepare the Environmental Report(s) based on the information and constraints provide by Enbridge. The main Environmental Report[165] filed is dated June 2020 and was the report filed with the previous Project application. The second (supplemental) report[166] is dated November 2020 and was filed in the previous Project application. The third (supplemental) report[167] is dated January 2024 and includes minor revisions to the previous reports.

The alternatives and route selection were restricted to a narrow boundary (Study Area) surrounding Enbridge's preferred route and which essentially follows the same congested downtown right-of-way as the current SLP. As confirmed by Enbridge, this is a difficult location for an XHP steel pipeline and has made it difficult for Enbridge to undertake routine maintenance[168]. A broader consideration of options using a much larger study area would have been more prudent for long term planning and to avoid the issues Enbridge has identified with the current location. Setting the Study Area tightly around the existing pipeline limited the options assessed and the potential impact analysis. The Environmental Report conducted by Dillon Consulting only considered this narrow consideration of pipeline replacement and did not do any comparison to the other alternatives (i.e. inspection and repair, as required). Despite the impact and public disruption which would be associated with inspecting and maintaining isolated sections along the current pipeline, the highest impact and disruption would occur from the Full

[165] F-1-1_Attachment 1_Redacted_20240617
[166] F-1-1_Attachment 2_Redacted_20240617
[167] F-1-1_Attachment 3_Redacted_20240617
[168] Exhibit B, Tab 1, Schedule 1, Page 32, part d.

Replacement Option selected. If the full range of real[169] alternatives was included in the Environmental Report, the impact analysis would likely have selected the Inspection and Repair Option.

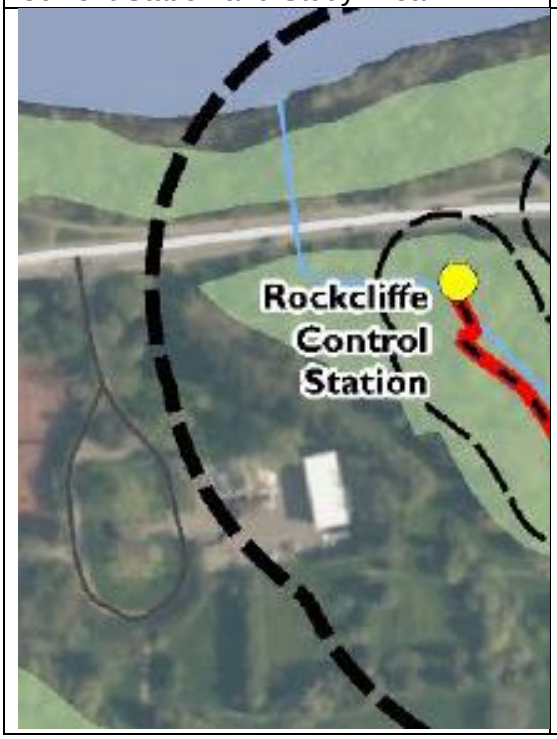
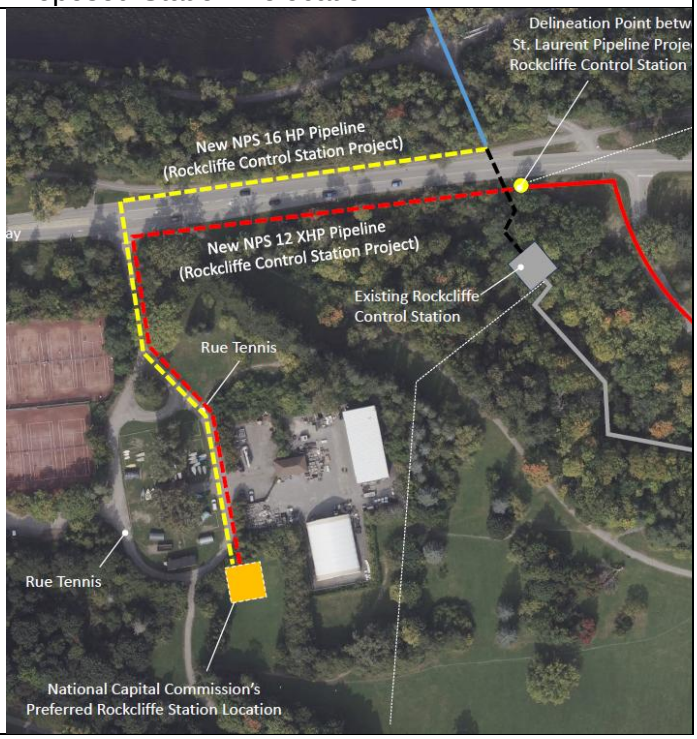
Given that the primary purpose of the SLP is to export gas to Quebec and feed local distributions systems, a transmission pipeline to provide export and backfeed a lower pressure system through the downtown core should have been an option considered as a long terms solution. This lowers the primary risk impact related to third party damage and avoided relying on an XHP steel pipeline that is transversing contaminated soil[170].

The official Study Area for the Project review and alternative selection is narrowly bounded around Enbridge's preferred Full Replacement option[171]. The Rockcliffe Station relocation and actual terminus of the proposed pipeline is not currently known, but Enbridge indicated a current proposed location[172]. The final location for the pipeline and station was not used to consider alternatives, impacts and mitigation in the evidence filed in the application, including the Environmental Report.

Contrary to the position stated by Enbridge in the proceeding[173], the currently preferred Rockcliffe relocation site and terminus of the proposed Project are actually outside the Study Area. The OEB Environmental Guidelines[174] require the full scope, including stations to be included in the scope of the Project assessment. The figure below shows the Study Area used for the Project, at the terminus point for the current Rockcliffe Station. This is contrasted against the proposed location for the station relocation, which is clearly outside the Study Area. Splitting a Project into parts to exclude pipeline and related station impacts does not represent best practice and is contrary to the OEB's Environmental Guideline. All elements required need to be considered jointly within one Project. The OEB has previously indicated that the Project needs to be considered in this holistic manner.

[169] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 85, line 26 to page 86 line 5.
[170] Section detailed in Letter to OEB per Exhibit B, Tab 1, Schedule 1, Attachment 1. The cause of the environmental contamination is unknown per Exhibit I.1-PP-14.
[171] F-1-1_Attachment 3_Redacted_20240617, Page 14, Figure 3 shows the Study Area used for the Project.
[172] : JT2.26 Attachment 1.
[173] Exhibit I.4-STAFF-21.
[174] OEB Enviromental Guidelines for Hydrocarbon Projects 8th Edition.

Current and proposed location for Rockcliffe Station in comparison to the Study Area

Current Station and Study Area[175]	Proposed Station Relocation [176]
	

Definition of the Study Area is one of the most important planning steps for any project requiring Leave to Construct approval since it sets the foundation for all geographic options, alternatives and environmental impact assessment and mitigation. The Study Area must include a sufficient spatial buffer to include the potential environmental and socio-economic impacts due to all potential route options and ancillary facilities. In fact, the OEB's Environmental Guidelines indicated that "The study area boundaries should be established to ensure that all reasonable alternatives and their impacts can be evaluated"[177]. Narrowly bounding a Study Area around an option already selected by the applicant circumvents an objective consideration of alternatives. In this case, it also excluded the proposed location for the Rockcliffe Station relocation, terminus of the proposed pipeline and related impacts and mitigation required[178].

[175] Source: Exhibit F, Tab 1, Schedule 1, Attachment 3, Page 22, Figure 4 show the more precise location of the current Rockcliffe Station compared to the loop (Tennis Court Rd.)
[176] Source: JT2.26 Attachment 1 shows the currently proposed location for the station relocation which is directly adjacent to Rue Tennis and outside the Project Study Area
[177] OEB Enviromental Guidelines for Hydrocarbon Projects 8th Edition_20230328, Page 22.
[178] See Environmental Impact Section below for more details.

5.2 – IRP Considerations

This Project is subject to OEB requirements for a fulsome IRP assessment for this Project[179]. The OEB has raised concerns with Enbridge proposing replacement pipelines without proper analysis and assessment. Even before establishment of the IRP, the OEB indicated that "… the OEB believes that all parties would be assisted if Enbridge Gas would, in the future, undertake in-depth quantitative and qualitative analyses of alternatives that specifically include the impacts of DSM programs on the need for, or project design of facilities for which Enbridge Gas has applied for leave to construct"[180]. Even more recently for the St. Laurent application Decision the OEB also indicated that "The OEB suggests that Enbridge Gas should work collaboratively with the City of Ottawa and other stakeholders to proactively plan a course of action if and when pipeline replacement is required, including the pursuit of Integrated Resource Planning (IRP) alternatives. Enbridge Gas has not carried out a detailed assessment of the IRP alternative citing that the pipeline integrity concerns must be addressed in less than three years which is the OEB threshold for carrying out an IRP assessment. As discussed earlier, Enbridge Gas has not provided strong evidence to support the claim that the integrity threat to the pipelines is imminent and that replacement in less than three years is necessary. In more general terms and to the extent applicable for future leave to construct applications, the OEB encourages Enbridge Gas to undertake in-depth quantitative and qualitative analyses of alternatives that specifically include the impacts of IRP, DSM programs and de-carbonization efforts"[181].

As noted, Enbridge's evidence displays efforts to justify a full Capital replacement rather than to undertake an in-depth quantitative and qualitative analysis of alternatives that specifically include the impacts of IRP, DSM programs and de-carbonization efforts. In the past three years since the previous Project Decision, Enbridge has focused significant efforts on justifying its preferred option, but little to no tangible effort on other alternatives. Despite the City of Ottawa previous multiple requests for specific IRP projects, targeted DSM and decarbonization[182], no specific plans or tangible results have been achieved against any of these items. As noted earlier, Enbridge has suggested that it has engaged through meetings with the City of Ottawa and local stakeholders. However, these Enbridge meetings have not led to any meaningful action

[179] Exhibit I.2-PP-38a.
[180] EB-2020-0192 dec_order_EGI_London Lines_20210128, Page 20.
[181] EB-2022-0200 dec_order_EGI_2024 Rebasing_Phase I_20231221, Pages 23-24 and EB-2024-0200 Exhibit I.2-ED-5.
[182] Examples include: Exhibit I.2-PP-42, Attachment 1, Page 40, and EB-2021-0002 CityofOttawa_LtrComment_DSM_October_2021.

or tangible results, much to the frustration of those stakeholders[183]. The OEB has provided Enbridge the IRP and DSM resources to take action, but these resources are not being applied in an effective manner to drive results. Progress occurs where Enbridge decides to focus its efforts and resources, and no tangible outcomes occur in areas where Enbridge determines those outcomes (e.g. IRP, targeted DSM and decarbonization) are contrary to Enbridge's goal to install incremental Capital. It is important not to confuse lobbying and meetings with a real plan and outcomes, as requested in the OEB previous Decision and as expected by stakeholders. Fixing this disconnect is a big challenge for the OEB given that Enbridge has shown little interest in focusing on those requirements.

Enbridge also failed to undertake an adequate IRP assessment for this Project in its previous application and has done so again in this application. The high level and cursory analysis included in the 2-page Posterity report is superficial and does not represent a credible attempt to develop an IRP plan or deliver any IRP outcomes[184]. Even despite the low level of effort, the Posterity modeling indicated that potential[185] is available, particularly if a more concerted effort was undertaken. The Posterity analysis excluded contract customers in the City of Ottawa and the Gazifere customers in Quebec where recent mandates have been put in place to reduce reliance and use of fossil fuels including natural gas for the future[186]. Enbridge confirmed that no Energy Transition analysis was conducted for future gas demand in Quebec[187]. Similarly, no IRP alternatives have been included in any of the Asset Management Plans, including the most recent version filed November 2024[188] that includes this Project. The St. Laurent Replacement Project is included in all of these AMPs document, but no IRP alternatives have been included for any proposed Capital project. The OEB has been providing tool, direction and resources to Enbridge in an attempt to jump-start IRP results. More is needed in order to overcome the Capital bias built into Enbridge's asset planning process. Additional details were proposed to be included by Environmental Defence and other parties on the gaps related to IRP, so a full list of the IRP non-compliance has not been included in this submission. The evidence is on the record and has been recognized by the OEB in other proceedings.

[183] Examples include City of Ottawa letter (EB-2022-0200 CityofOttawa_LtrComment_EGI 2024 Rebasing_20230721) on concerns over lack of meaningful action and progress and Enbridge responded (EB-2022-0200 2024 EGI_Reply_City of Ottawa_Comment_20230727) and related references in EB-2024-0200 Exhibit I.2-STAFF-19.
[184] Final Transcript for EB-2024-0200 Technical Conference November 13, 2024, Page 40.
[185] Exhibit I.ED-17, the potential lifetime annual natural gas volume savings across the study period are 393,697,619 m3. The societal value of the lifetime gas savings is $179,041,210.
[186] Exhibit JT3.1.
[187] Exhibit I.1-CAFES Ottawa-6.
[188] EB-2020-0091 EGI_AMP_2025-2034_20241108.

5.3 – NPV Analysis and Results

Enbridge presents NPV analysis related to Full Replacement vs. Inspection and Repair Options. For each of these options, Enbridge estimated the NPV for Case A (63-year life), Case B (42-year life) and Case C (31-year life). Updated NPV and scenarios were also included in response to questions and requests from stakeholders to the proceeding. Through detailed review of the assumptions underlying the NPV analysis, it was discovered that an 'apples to oranges' set of assumptions was applied to the math which favoured the Full Replacement Option vs. the Inspection and Repair Option. Every different assumption applied between scenarios was always applying a more favourable treatment to the Full Replacement Option and a disadvantage to Inspection and Repair, including when guesses were being applied to values. The differences and impacts were not small, they were significant and material to the analysis and results. Having an approach that is consistently biased in favour of Enbridge's preferred option gives the appearance of the NPV analysis being developed to systematically favour Enbridge's preferred option. When even the most obvious errors are corrected, it reverses the results of the NPV analysis to favour the Inspection and Repair Option over Full Replacement.

A short summary of the discrepancies and errors that need to be adjusted for are listed below.

1. The NPV analysis uses a 6% inflation rate for Inspect and Maintain options and 2% inflation rate for the Full Replacement Option. Use a consistent 2% inflation for all scenarios per AMP assumptions is recommended[189]. The impact is a decrease in the Inspection and Repair Option of $132 million[190], $59.9 million[191], and $28.9 million[192] for Case A, B and C, respectively. The basis of the escalation used by Enbridge is punitive and not statistically prudent[193]. This is compounded by the fact that those costs are not certain to be needed, particularly the further into the future the guestimate forecast goes.

[189] Exhibit JT1.4 and JT2.1.
[190] NPV of Capital cost for Case A goes from $271,893,000 to $139,862,000 = $132 million decrease.
[191] NPV of Capital cost for Case B goes from $188,687,000 to $128,817,000 = $59.9 million decrease.
[192] N PV of Capital cost for Case C goes from $147,226,000 to $118,318,000 = $28.9 million decrease.
[193] Statistical significance of the Enbridge assumption is far outside the range of logic per PollutionProbe_CAFESOttawa_SUB_Appendix A _20250124. The Standard deviation of the historical transmission line dig data is 71,626 which is an extremely wide dispersion in the costs. The R-Squared is only 0.28, which is also indicates extremely uncorrelated data for extrapolating any assumptions. This lack of correlation is further illustrated by the transmission line costs per dig which ranges from approximately $8,000 to $285,000 (the highest cost being in a pandemic year).

2. EGI loaded the alternative with estimated inspection and maintenance costs and excluded them from the Full Replacement scenario, even out to 2087[194], which would make the new pipeline older than the current one. This is inconsistent treatment of the same types of Inspection and Maintenance costs between the two options. Enbridge indicated that they were excluded from the Full Replacement since they come from a different budget (cost center[195]), but it is not appropriate to treat them differently for NPV comparison purposes. Even using a low estimate at 10% of the Case A (similar time estimate for Full Replacement timeline based on proposed amortization period used as a proxy for useful life[196]) costs to estimate inspection and repair costs for the Full Replacement would increase the Full Replacement by approximately $249 million. The impact is as follows to the NPV.

Inspection & Repair Costs Included by Enbridge for NPV Analysis			
Option	**Costs Included in NPV**	**NPV of Costs Included**	**Comment**
Full Replacement	$0	$0	
Inspection & Repair – Case A (63 years)[197]	$2.49 billion	$271.9 million	
Inspection & Repair – Case B (42 years)[198]	$599 million	$188.7 million	
Inspection & Repair – Case C (31 years)[199]	$260.3 million	$147.2 million	
Full Replacement - Estimated inspection and repair costs	$249 million	$27.2 million	Conservative estimate applied to Full Replacement for inspection and repair (incl. maintenance) costs excluded by Enbridge.

3. Full Replacement excludes real Project costs in NPV such as estimated overheads which were estimated at $35,517,720[200]. The total costs used for NPV for the Full Replacement was $165 million[201] vs. the Project total estimate of $216 million[202], a difference of $51 million under-estimation in the Full Replacement costs applied to the NPV.

4. Enbridge indicates that the Full Replacement is the most predictable and stable solution, but the Full Replacement is just a 100% certainty of incurring the Capital

[194] JT2.20_Attachment 1_20241115.
[195] Exhibit I.1-PP-5a.
[196] If the useful life is lower, than stranded asset costs will need to be applied. If life is longer, than inspection and repair costs will be higher.
[197] Info per JT2.20_Attachment 1_20241115
[198] Per JT2.20_Attachment 2_20241115.
[199] Per JT2.20_Attachment 3_20241115.
[200] Exhibit E, Tab 1, Schedule 1, Table 1.
[201] JT2.20_Attachment 1_20241115, cell E21.
[202] Exhibit E, Tab 1, Schedule 1, Table 1.

Costs estimated, where the costs related to the Inspection and Repair Scenario are simply inflated guesstimates over the 31 to 63 year period and those costs have a low probability of occurring as projected by Enbridge. A prudent discount factor should be applied to recognized the low probability of the inspection and repair cost occurring as defined. A high discount factor is logical given the lack of evidence to support those costs. However, a 50% discount is a conservative factor given the uncertainty of the repair cost estimates over the next 63 year. Even a minimal 10% discount factor would decrease the NPV of Case A, B and C by $249 million, $60 million and $26 million, respectively. There is also a high likelihood that the estimated inspection and repair costs would cease once the pipeline throughput declines by 2050 due to the Energy Transition impacts. The Full Replacement Option would attract none of those savings.

5. Inspection costs for the Inspection and Repair Option were estimated at a cost of $2.4 billion, $599 million and $260 million for Case A, B and C, respectively. The costs incurred to date to inspect 4.5 km of the SLP with the Crawler in-line inspection tool are $2.2M[203]. Extrapolated for the entire length of the line, this would equate to only $5.43 million[204].There is a large discrepancy in inspection costs for the Maintain and Repair Option, where the Full Replacement Option excludes all inspection costs over its entire useful life.

6. The Full Replacement Scenario excluded all inspection, maintenance or repair costs over life of the proposed new pipeline. In 60 years, the new pipeline would be the same age as the current SLP is today and it is unreasonable to exclude all maintenance, inspection and repair costs from the Full Replacement Option. The total NPV of the repair costs for the current SLP was estimated at $2.4 billion. Even decreasing those costs by 75% for the Full Replacement Option over 60 years equals $600 million. Enbridge's calculations for Inspection and Repair costs were escalated at an inflation rate of 6%, which is higher than the discount rate of 5.75%[205]. This means that those costs would be higher if brought to present value. To be conservative and using Enbridge's assumptions, it would be very conservative to apply $600 million of additional costs to the Full Replacement Option to make an 'apples to apples' comparison.

7. Enbridge has only conducted 403 total integrity digs across the entire system from 2009 to 2022, but has guesstimated that 254 digs[206] will be needed on the SLP

[203] Exhibit I.2-STAFF-17c.
[204] $2.2 million / 4.5km X 11.1km = $5.43 million
[205] JT2.20_Attachment 1_20241115, cell B35.
[206] The sum of column H16 + H54-H62 in JT1.6_Attachment 1_20241115 is 254 digs estimated.

alone for estimating costs of alternatives. This includes digs beyond when the pipeline is expected to still be needed[207]. The number and related total costs of the integrity digs should be decreased to a more logical value. Decreasing by at least 95%[208] appears to be more in line with the pace of digs across the system, including on similar distribution lines that are older or have higher risk than the SLP[209]. In addition, removing guesstimate digs after 2050 would reduce those estimates by another 70%[210], or a compounded reduction of 98.5% compared to Enbridge's dig guestimate. Using a conservation 95% true up would result in a decrease of $164.4 million[211] in cost reduction to the Inspection and Repair Option Case A (65 years). The similar result for Case B (42 years) and Case C (31 years) is $98.2 million[212] and $63.8 million[213], respectively.

8. Future innovation and technology are likely to decrease costs and/or make inspections easier. The ILI crawler tool was one that Enbridge had not used for assessment on the SLP previously and no it was available for use[214]. Enbridge's assumption that inspection costs steadily increase forever into the future is not prudent assumption.

9. Enbridge acknowledged that the estimates, scope and actual need for the costs related to the Inspection and Repair Option are highly uncertain and the further out these guestimates are applied, the less likely that pertain to what is really expected to be needed, if at all. Enbridge has acknowledged this problem[215].

The original NPV comparison put forward in Enbridge's application (before any adjustments or corrections) suggested that the Full Replacement Option was more cost effective than the Inspection and Repair Option. The original table provided the following results from Enbridge's calculations[216].

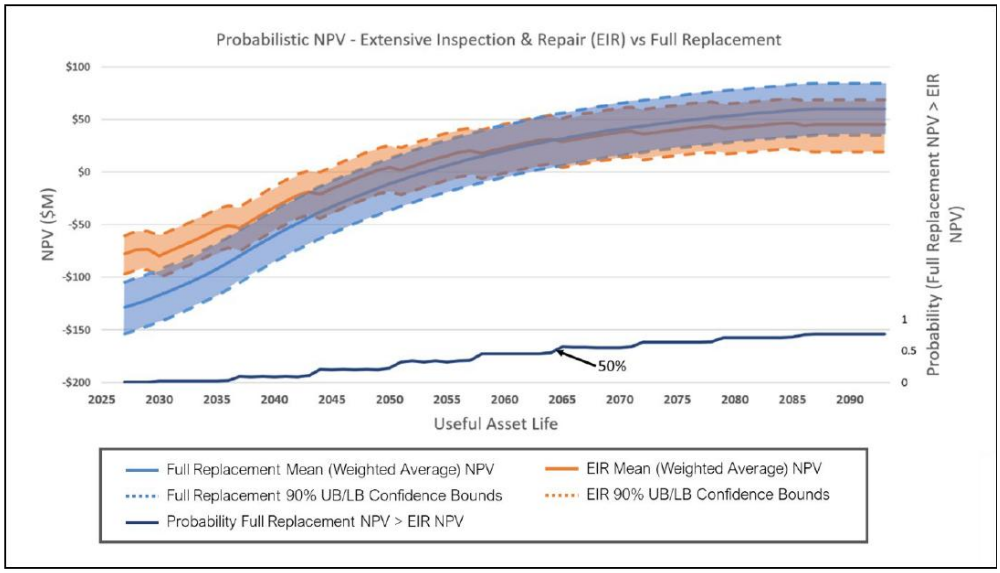
[207] JT1.6_Attachment 1_20241115, digs in rows H54-H62 include guesstimated digs out to 2086.
[208] SLP is one of 22 risk assessed pipelines per Section 3) Project Context discussion and graph. Digs will be needed on more than just those 22 lines identified by Enbridge, but just using that relative proportion, SLP is less than 5%.
[209] Exhibit I.1-CAFES Ottawa-10, Attachment 10, Page 25 shows many other pipelines with higher risks than SLP..
[210] 178 of the guesstimatd 254 digs are estimated to occur after 2050, per JT1.6, reducing the proportion of digs by another 70%.
[211] $165 million = JT1.6_Attachment 1_20241115 (sum of column J16 + J54-J62) X 95% reduction.
[212] $98.2 million = JT1.6_Attachment 1_20241115 (sum of column J16 + J54-J59) X 95% reduction.
[213] $63.8 million = JT1.6_Attachment 1_20241115 (sum of column J16 + J54-J57) X 95% reduction.
[214] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 109 lines 16-23 and Page 74, lines 15-21.
[215] Exhibit A, Tab 2, Schedule 2, Page 4, Item 4 – Uncertainty.
[216] Exhibit C,, Tab 1, Schedule 1, Page 19.

Summary of NPVs for Alternative A and B with Various Useful Lives

NPV ($ millions)	A – Full Replacement	B - Extensive Inspection and Repair	$ Difference (A – B)
Case A (63 years)	$(134)	$(253)	+$119
Case B (42 years)	$(134)	$(179)	+$45
Case C (31 years)	$(134)	$(140)	+$6

Case C which is a 31-year useful life (i.e. to 2057) is very close to the new pipeline estimate, even before any corrections to the underlying assumptions.

Also, only just applying a consistent inflation rate of 2% and no other factors make the Inspection and Repair Option more cost effective until near 2065, when Enbridge's updated modeling suggests that the options are equivalent financially. That means that if the pipeline is not needed after 2065 in this scenario, the Inspection and Repair Scenario is best for all cases. This is illustrated in the diagram below noted by the 50% marker[217].



The discount rate used for NPV analysis is 5.75%[218]. As a baseline comparison of options, below is the scenario comparison table which uses a consistent 2% inflation rate consistent with the inflation rate used by Enbridge in its Asset Management Plan for

[217] Exhibit JT1.13, Page 2.
[218] REDACTED PUBLIC Final Transcript for EB-2024-0200 Technical Conference October 30 2024, Page 28, lines 8-11.

all projects and programs[219]. Even with this conservative correction only and no other corrections, it shows that the Inspection and Repair Option is more cost-effective in the two most likely cases, Case B (2057) and Case C (2068).

Summary of NPVs for Alternative A and B with Various Useful Lives with Modified 2% Constant Escalation Rate

NPV ($ millions)	A – Full Replacement	B – Extensive Inspection and Repair	$ Difference (A - B)
Case A (63 years)	$(130)	$(134)	+$4
Case B (42 years)	$(130)	$(123)	-$7
Case C (31 years)	$(130)	$(113)	-$17

The following is a summary of adjustments that apply to the NPV analysis to make the Full Replacement more comparable to the Inspect and Repair Option. Even if only a small number of these adjustments were applied, it results in the Inspection and Repair Option being more cost-effective than the Full Replacement.

Correction / Adjustment (values in $ millions)	Full Replacement	Inspection & Repair (Case A)	Inspection & Repair (Case B)	Inspection & Repair (Case C)
1) Common Inflation Rate	+0	-132	-59.9	-28.9
2) Add Inspection and Repair Costs over asset life	+249	-0	-0	-0
3) Add O/Hs and full Project costs	+51	-0	-0	-0
4) Probability of Cost Occurring - adjustment	+0	-249	-60	-26
5) Adjust to match actual Inspection costs	No estimate[220]	No estimate[221]	No estimate[222]	No estimate[223]
6) Include Inspection & Repair Costs	+600	-0	-0	-0
7) Rationalize Integrity Dig number	+0	-$164.4	-98.2	-63.8

[219] The source for the consistent 2% inflation values with no other adjustments is Exhibit JT1.7. Confirmation of 2% rate is per Exhibit JT1.4 and JT2.1.
[220] Would increase Full Replacement costs which did not include inspection costs in NPV. No estimate calculated.
[221] Would decrease Inspection and Repair Option costs compared to inflated guesstimate in NPV. No estimate calculated.
[222] Ibid.
[223] Ibid.

Correction / Adjustment (values in $ millions)	Full Replacement	Inspection & Repair (Case A)	Inspection & Repair (Case B)	Inspection & Repair (Case C)
8) Reduced Inspection Costs due to innovation and technology	No estimate[224]	No estimate[225]	No estimate[226]	No estimate[227]

6) Project Cost & Economics

Ratepayer costs have been incurred on completed repairs and section replacements for the St. Laurent Pipeline since 2019 and those are not part of the approvals requested in this proceeding. However, some of these previous sunk costs have been added to the cost estimate for the Project. It is important to distinctly separate historical costs previously incurred for the Project denied by the OEB from those included in this new St. Laurent Replacement Project for purposes of defining the proposed project. This requires removal of $22,406,044 from the Project estimate in the Leave to Construct for costs previously incurred[228].

This provides a more relevant Project estimate for assessment of this proposed Project. Historical costs historically incurred that are not related to this new Project are sunk costs and should have been written off in the last rebasing period. This is also important from an accounting perspective as Enbridge allocates Project costs under the current rate term, if the Project is approved. In addition, $1,562,549 of costs were paid by Enbridge in 2022 in relation to cancellation of contracts and payment of lease agreements for the temporary construction yard [229].These sunk costs are related to Enbridge payments before the OEB's Decision and should not be carried forward since they occurred in 2022. Enbridge has also included $7,349,729 of costs in the Project estimate[230] related to incremental investigation costs. Pipeline investigation costs are related to inspection and integrity which have traditionally been O&M costs. Those costs should have been expensed in the year they occurred and not carried forward as prospective Capital costs for the proposed Project.

[224] Would increase Full Replacement costs which did not include inspection costs in NPV. No estimate calculated.
[225] Would decrease Inspection and Repair Option costs compared to inflated guesstimate in NPV. No estimate calculated.
[226] Would decrease Inspection and Repair Option costs compared to inflated guesstimate in NPV. No estimate calculated.
[227] Would decrease Inspection and Repair Option costs compared to inflated guesstimate in NPV. No estimate calculated.
[228] Exhibit JT3.8 Table 2 and Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 19 line 2 to page 22, line 25 and JT2.7.
[229] Exhibit JT2.6 and Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 19 line 2 to page 22, line 25.
[230] Exhibit E Tab 1, Schedule 1, Page 2, Table 1.

In order for the OEB to determine if the Project estimate is reasonable, the OEB must be able to understand the actual scope of the Project and have confidence and transparency on what is included in those figures. Although the OEB is not providing any rates approvals in this proceeding, Enbridge may interpret that OEB Leave to Construct approval is confirmation that the Project costs included in the application are deemed as prudent expenditures in support of recovering these costs in the future from ratepayers. It is common for Enbridge to reference an OEB Leave to Construct approval as a basis for supporting recovery of those expenditures from ratepayers[231].

There have been significant discrepancies and variances in the cost estimates for the proposed Project. The costs included in this Leave to Construct Application are $216,065,181 plus ancillary facilities[232]. This is a 75% increase from the cost estimate of $123,679,522 previously filed in the Leave to Construct application[233], just a few years ago. There was a variance in costs again presented in the 2024 Capital Update filed in the recent Rebasing proceeding[234]. Similarly, the most recent information filed with the OEB by Enbridge in the 2025-2034 AMP filed in November 2024 is also different than the figures included in this application[235]. It is not just important to understand the cost estimate of the Project and what is included in the scope of the Project, but it is also important to ensure that any cost comparisons are done on an 'apples to apples' basis when comparing alternatives to the proposed Full Replacement Option. Using a consistent approach to compare alternatives avoids errors and biases in the outcomes of preferred alternative selection.

The OEB previously indicated to Enbridge that "Given that Enbridge Gas's application is denied based on the lack of evidence to support immediate need, the OEB is not making any specific findings regarding the reasonableness of the estimated Project cost details. However, for similar future applications, the OEB urges Enbridge Gas to provide more details about life-cycle costs including abandonment costs and the probability of future under-utilization. The OEB also encourages Enbridge Gas in future applications to elaborate on the reasons for any significant discrepancies between its cost estimate for the proposed project and other similar projects which was lacking in this application"[236]. Enbridge has not provided sufficient details to explain the significant costs estimate increase or reconcile the cost estimate with those includes in recent

[231] Recent examples include EB-2024-0111 Phase 2 Exhibit 1, Tab 13, Schedule 4,, Page 1.
[232] Exhibit E, Tab 1, Schedule 1, Page 2, Table 1.
[233] EB-2020-0293 Exhibit D, Tab 1, Schedule 1, Page 1, Table 10.
[234] See Exhibit JT2.9
[235] Details in J3.8
[236] EB-2020-0293 Decision Page 26.

Asset Management Plan estimates used to prioritize Capital expenditures within the approved OEB Capital envelope[237].

It is also important to note that the pipeline is designed to serve an ex-franchise customer (Gazifere) in Quebec and 28.1% of the pipeline demand design is solely for that customer. This is not pipeline allocation driven by Ontario ratepayers, even though Ontario ratepayers would be asked to incur the full cost of the proposed project. It is typically to include an executed Contribution in Aide of Construction (CIAC) agreement in a Leave to Construct where there is one large customer that is being allocated a significant amount of the Project peak capacity. That was not done in this application. Enbridge has assumed that the ex-franchise will fund the project over time based on historical demand and with no consideration of the decline in fossil fuel demand and the regulatory phase out of fossil fuels in Quebec starting in 2022[238].

7) Environmental Impacts

The Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Projects and Facilities in Ontario[239] (OEB Environmental Guidelines) define the requirements and scope of the Project for consideration including impacts that may occur during construction or operation of the project, including cumulative impacts. The term “environment” in the Guidelines is defined to include natural, social, economic, cultural and built components[240]. Where the Applicant is not able to follow the OEB Guidelines it must be indicated with reasons. The OEB Environmental Guidelines specifically indicates that “Both positive and negative potential impacts of each alternative must be identified and analyzed, based on an assessment of impacts during construction and the operation of the facilities”[241]. Enbridge has failed to do this and the application did not include the operational activities, costs and impacts related to the proposed Project (as preferred by Enbridge), but only applied those costs and impacts against alternatives which were not selected.

As noted earlier, Enbridge ignored the inspection, maintenance and repair activities related to a new pipeline. More effective monitoring and inspection for these pipelines was key recommendation in the OEB’s EB-2020-0293 Decision. If a new pipeline is

[237] Although Enbridge indicates that the OEB approved Capital envelope was sufficient to accommodate Capital expenditures in the 2025-2034 Asset Management Plan per EB-2020-0091 EGI_AMP_2025-2034_20241108, Page 17, Section 1.6.
[238] EB-2020-0293 PollutionProbe_IR_EnbridgeReplyEvidence_20220208 Attachment 1. Additional bans have moved forward more recently in areas of Quebec.
[239] OEB Enviromental Guidelines for Hydrocarbon Projects 8th Edition_20230328
[240] OEB Enviromental Guidelines for Hydrocarbon Projects 8th Edition_20230328, Page 5.
[241] OEB Enviromental Guidelines for Hydrocarbon Projects 8th Edition_20230328, Page 26.

installed and operated past 2086 (the forecasted end of the amortization period), it is expected (and required) for Enbridge to provide those considerations and impacts as part of the application and plan. In fact, the OEB Leave to Construct Guidelines require the Applicant to assess the full lifecycle of the proposed Project.

The busy and congested downtown corridor posed the greatest issue identified by Enbridge to the current SLP, yet the proposed new pipeline will essentially follow the same downtown corridors and result in the greatest impacts if the Full Replacement Option is implemented in those corridors. Similarly, the primary Integrity consideration identified Enbridge for the SLP is the potential for third party damage due to the location of the pipeline in a busy active downtown corridor[242]. Locating the proposed Project in the same busy active downtown corridors poses the same risks now and over the life of the pipeline. The operational, risks and cumulative impacts over the life of the Project were excluded from the application and alternative comparison

Enbridge has suggested that isolated repairs could be disruptive, but increased scope of Full Replacement construction activities will increase the magnitude and time related to those impacts. Cumulative traffic impacts also far exceed that of the more limited and isolated Inspection and Repair Option. Repairs and limited section replacements have already proven to be a feasible solution without disrupting the entire pipeline corridor during a concentrated period.

Pipeline abandonment in-situ and construction of an additional large diameter pipeline along the congested downtown core will further restrict the ability for future municipal development. These cumulative impacts are one of the reasons that the OEB Environmental Guidelines requires consideration for the entire lifecycle of projects proposed.

Station site development is another area specifically covered in the OEB Environmental Guidelines. Enbridge confirmed that it will be moving the Rockcliffe Control Station and will need to determine it location as it will form the terminus for the proposed pipeline[243]. The assessment of alternatives and related construction and operational impact of the station relocation are required to be included in the Environmental Report and application for a Leave to Construct. The construction and operation of the Rockcliffe Station relocation alternatives and impacts assessment was excluded from the Environmental Report(s) and the terminus location shown in the Environmental Report is the current location[244] which will not be the actual terminus of the proposed pipeline. The currently preferred location for the Rockcliffe Station relocation and terminus of the

[242] Final Transcript for EB-2024-0200 Technical Conference October 31 2024, Page 35, line 24 to page 27, line 15.
[243] JT2.26
[244] F-1-1_Attachment 3_Redacted_20240617, Page 3, Figure 1.

proposed pipeline is actually outside the Study Area used to consider alternatives and impacts and mitigation[245].

The Environmental Protection Plan (EPP) has not been finalised and filed with the OEB. If Leave to Construct is approved, the OEB should include a Condition of Approval to file the completed EPP prior to the commencement of construction, similar to the Condition of Approval for the most recent St. Laurent Pipeline project completed[246]. This is particularly important given that the Study Area used for this Project was not sufficient to include impacts from the actual location of construction that Enbridge intends to follow (i.e. the final terminus of the Project will be the relocated Rockcliffe Station which is currently not decided and the impacts from the current preferred location will be outside the narrow Study Area used for the Environmental Report which centered the terminus point on the existing station location).

[245] F-1-1_Attachment 3_Redacted_20240617, Page 14, Figure 3 shows the Study Area used for the Project. EB-2024-0200, Exhibit F, Tab 1, Schedule 1, Attachment 3, Page 22, Figure 4 show the more precise location of the current Rockcliffe Station and Study area which does not include Rue Tennis to the West. JT2.26 Attachment 1 shows the currently proposed location for the station relocation which is directly adjacent to Rue Tennis and outside the Project Study Area.
[246] EB-2019-0006 OEB Decision Page 8.