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January 24, 2025

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

Dear Ms. Marconi,

RE: EB-2024-0200 Enbridge Gas Application for Leave to Construct Natural Gas Pipelines in the City of Ottawa Project – Argument Submission of Energy Probe

Attached is the argument submission of Energy Probe Research Foundation (Energy Probe) in the EB-2024-0200 Enbridge Gas Application for Leave to Construct Natural Gas Pipelines in the City of Ottawa project proceeding.

Respectfully submitted on behalf of Energy Probe.

Tom Ladanyi
TL Energy Regulatory Consultants Inc.

cc. Patricia Adams (Energy Probe)
Zora Crnojacki (OEB Staff)
James Sidlofsky (OEB Staff)
EGI Regulatory Proceedings
Intervenors of Record

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EB-2024-0200 Enbridge St. Laurent

Argument Submission of Energy Probe

January 24, 2025

Executive Summary

Energy Probe submits that the OEB should approve the Enbridge St Laurent Pipeline (SLP) replacement project as filed. Enbridge Gas has demonstrated that the project is needed, that the full replacement is the best alternative and that project cost estimate is appropriate for a pipeline replacement of this scope and size.

Introduction

Enbridge Gas applied to the Ontario Energy Board on June 17, 2024, 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 would address significant consequences to safety and operational reliability on the SLP system. The issues for this application follow OEB's standard issues list for leave to construct applications. In its argument submissions Energy Probe will only deal with project need, project alternatives, and project cost.

Project Need

The SLP system consists of 10.8 km of NPS 12 steel pipe and 0.4 km of NPS 16 steel pipe. The pipeline was primarily constructed between 1958 and 1959 with coated steel pipe. The SLP was originally commissioned at a pressure of 1,200 kPa. Due to the increase in demand from new and existing customers fed by this pipeline, a pressure elevation was completed in 1985 to increase the pressure of the pipeline to 1,900 kPa.¹

The SLP system is a critical component of Enbridge Gas's natural gas distribution network in the National Capital Region. There are approximately 168,000 gas customers on networks downstream of the SLP system in Ottawa, and in Gatineau, Quebec, including homes, businesses, industries, and institutions. The SLP system plays a crucial role in not only meeting the energy needs of customers and businesses, but also as part of the network that supplies energy to vital resources including the RCMP headquarters, several hospitals, Department of National Defense buildings, foreign embassies, and the Cliff Street heating plant that serves Parliament buildings, and major hotels that are of paramount importance to the economy and needs of the Region.²

¹ Exhibit B, Tab 1, Schedule 1, page 4, paragraph 10

² Ibid., page 5, paragraph 11

Enbridge Gas had previously applied for this pipeline replacement project in 2021 under docket EB-2020-0293 which the OEB denied.³

Following the OEB decision to deny the 2021 LTC Application, and in response with the OEB recommendation, the Enbridge Gas initiated a “Targeted Integrity Program” to collect pipeline-specific condition data to gain a more comprehensive understanding of the SLP’s condition and risks.⁴ Enbridge’s Targeted Integrity Program for the SLP system gathered information on the condition of the pipeline and its surroundings to determine the operability of the SLP from a safety and reliability perspective in its current condition and assessed the asset management requirements for remaining life alternatives, including safety, reliability, and economic assessment. Enbridge completed inspections and surveys in 2022 to gather detailed pipeline-specific data on the physical condition of the SLP and its surroundings. The description and purpose of the various inspections that were completed on the SLP as a part of the Targeted Integrity Program are listed in the evidence⁵ as are the findings.⁶ Enbridge then performed a Quantitative Risk Assessment (QRA) using the results of the Targeted Integrity Program.

The QRA utilized standard pipeline industry reliability methods and published failure rates to form a comprehensive assessment of all threats to the pipeline, along with their potential failure modes. Based on the assessment and evaluation criteria, Enbridge concluded that 8.8 km of the 11.2 km pipeline (79%) fail the acceptable CSA Z662 - Annex O reliability thresholds.⁷

The QRA of the pipeline took into consideration all quantified hazards and potential risks. This assessment was then measured against three distinct evaluation criteria to determine whether immediate interventions or risk mitigation measures were necessary to ensure the pipeline’s safety and continued safe operation. The evaluation criteria included: CSA Z662-19 Annex O Reliability Targets, PHMSA Distribution Pipeline Significant Incidents Benchmark, Enbridge Standard Operational Risk Assessment Matrix (ORAM).

Based on the findings of the of the Targeted Integrity Program on the SLP system, and the potentially significant consequences to health and safety and operational reliability of the risks identified, Enbridge determined that immediate action was needed.

Energy Probe believes that Enbridge has performed a thorough investigation of the integrity of the SLP system. Its QRA has established the need for immediate action to address the risks to health and safety and operational reliability of SLP.

Project Alternatives

Enbridge assessed six integrity program and facility alternatives and a non-facility alternative.

³ EB-2020-0293 Decision and Order, May 3, 2022

⁴ Ibid., pages 5-6, paragraph 12

⁵ Ibid., pages 6-7, paragraphs 13 and 14, and Table 1, Inspections and Surveys

⁶ Ibid., pages 8-33

⁷ Ibid., page 33, paragraphs 49 and 50

The integrity program and facilities assessed six alternatives.⁸

- Alternative 1: No Additional Actions
- Alternative 2: Permanent Pressure Restriction
- Alternative 3: Extensive Inspection and Repair with Crawler ILI
- Alternative 4: Extensive Inspection and Repair with Free-Flow In-line Inspection (ILI)
- Alternative 5: Full Replacement
- Alternative 6: Partial Replacement

The non-facility alternative considered potential Integrated Resource Planning in combination of some of the above six alternatives.⁹ Based on its evaluation Enbridge determined that Alternative 5, Full Replacement was the only alternative that met all its objectives.

Enbridge also considered the stranded asset risk that there would be no need for the pipeline in the future because of conversions from gas to electric heating in the area served by the pipeline. Enbridge serves approximately 168,000 in Ottawa but only 335 customers in the City of Ottawa have had their gas meter removed and associated account closed since 2020.¹⁰ Enbridge concluded that the risk of pipeline becoming stranded was low.¹¹ Energy Probe agrees with this conclusion. Energy Probe believes that Enbridge has appropriately evaluated alternative solutions and has made the right decision.

Project Cost

Enbridge has estimated the total project cost to be \$216 million¹². To support its estimate Enbridge compared it to costs of its two recent replacement projects, NPS 30 Cherry to Bathurst Project and the NPS 20 Waterfront Relocation Project¹³. Based on the comparison of the costs of those two projects Energy Probe believes that the \$216 million cost estimate of the SLP Replacement Project is appropriate.

Conclusions

Enbridge Gas has demonstrated that the project is needed, that the full replacement is the best alternative and that project cost estimate is appropriate for a pipeline replacement of this scope. Energy Probe submits that the OEB should approve this project and issue Enbridge the LTC order for it.

⁸ Exhibit C, Tab 1, Schedule 1, pages 3 to 5, Table 1

⁹ Ibid., pages 21 to 25

¹⁰ Exhibit I.2-EP-5

¹¹ Exhibit C, Tab 1, Schedule 1, page 25

¹² Exhibit E, Tab 1, Schedule 1, page 2, Table 1

¹³ Ibid., page 3, Table 2