

BY E-MAIL

December 5, 2019

Mr. Joel Denomy
Technical Manager, Regulatory Affairs
Enbridge Gas Inc.
500 Consumers Road
Willowdale ON M2J 1P8
Joel.Denomy@enbridge.com

Dear Mr. Denomy:

**Re: Enbridge Gas Inc.
Request to Vary Don River NPS 30 Replacement Project
Ontario Energy Board File Number EB-2019-0275
Request to Vary**

On October 15, 2019, Enbridge Gas Inc. (Enbridge Gas) submitted a letter to the OEB in which it requested a variance to the OEB decision and order (Decision)¹ approving the Don River NPS 30 Replacement Project (Project). The Project involves relocating a portion of the Don River NPS 30 pipeline (Pipeline) off a utility bridge (Bridge) that poses a risk to the safe operation and reliability of the Pipeline. The requested variance involves deferring the in-service date for the Project from the planned in-service date of September 2019 to May 2020.

In its October 15, 2019 letter, Enbridge Gas explained that, as a result of certain permit delays, it is unable to complete the final tie-in of the Pipeline until the next planned maintenance shut-down of a large volume customer, which is scheduled for April 2020. Enbridge Gas stated that it had considered an alternative option for tying in the Pipeline in the winter of 2019 with the use of a bypass. However, Enbridge Gas rejected this option due to operational risks and network constraints that would be present during the winter heating season.

The proposed variance will result in an extension to the duration of certain permits and the duration of temporary workspace, namely road cut permits and temporary workspace authorizations from the City of Toronto, as well as a rail permit from Metrolinx. Enbridge Gas stated that the time extension (and in particular the extended duration of temporary work space requirements) will increase Project costs, but that this increased cost will be

¹ EB-2018-0108, Decision and Order, issued November 29, 2018

covered by the budgeted contingency for the Project. As a result, Enbridge Gas expects there will be no impact to the overall costs for the Project. Enbridge Gas submitted that the variance would not modify the Project's originally proposed construction or restoration practices, environmental mitigation measures, stakeholder consultations, or land requirements.

On October 24, 2019, the OEB issued a letter to Enbridge Gas requesting additional information in order to determine the materiality of Enbridge Gas's proposed variance. In particular, the OEB asked for:

1. An explanation of the operational risks, network constraints, and costs associated with performing the bypass option;
2. An explanation of how Enbridge Gas will mitigate the risks of using the Bridge for an additional eight months, including how Enbridge Gas will reduce the impact of any outages for customers should the Bridge fail;
3. A comparison of the risks associated with performing the bypass option versus the risks associated with prolonged use of the Bridge, including quantitative analysis;
4. A schedule for the bypass option.

On November 1, 2019, Enbridge Gas submitted its responses to the OEB's request for additional information. On November 20, 2019 the OEB issued a letter to Enbridge Gas stating that the information it had provided to date was insufficient to allow the OEB to determine whether the proposed deferral of the tie-in to April 2020 poses less risk than the winter bypass option. In particular, the OEB indicated that Enbridge Gas had not provided information on how it would mitigate the risks of using the Bridge for an extended period of time, nor did it provide a quantitative risk analysis of the deferred tie-in relative to the winter bypass option.

Enbridge Gas responded on November 28, 2019 restating the responses in its November 1, 2019 letter and providing additional commentary on the operational risks and network constraints associated with constructing a bypass during the winter months, which is summarized as follows:

- a) *Challenges with inserting and obtaining a gas stop due to high flow conditions.* Enbridge Gas requested the opinion of T.D. Williamson, an industry expert, to understand the flow rate limitations for the equipment utilized for a bypass. The recommendation received was that Enbridge Gas should not complete a bypass at a flow rate of over 9.0m/s. Enbridge Gas' network analysis estimated that the flow rate would be 13.5m/s, which raised concerns about the risk of not being able to stop the flow of gas in the Pipeline due to high flow and/or of damaging the equipment used to perform the bypasses.
- b) *Potential damage to the bypass due to limited work space.* Enbridge Gas stated that, if it pursued the bypass option, there would be a limited area of work space in which the bypasses would be performed and this would increase the risk of damage to the bypasses. This risk would arise because the bypasses would be energized and flowing gas at the same time the tie-ins are being constructed. The limited working space is a result of completing this work in a highly congested

area. If there was damage to either of the bypasses and, depending of the extent of the damage, Enbridge Gas would need to isolate the Pipeline which would result in the loss of gas service to customers.

- c) *Potential third-party damage due to additional fittings being added to the Pipeline.* Enbridge Gas stated that, executing the bypass option would require adding stopple fittings to the Pipeline, which reduces the depth of cover of the Pipeline by approximately 30 cm. The result is that the Pipeline is no longer at the standard depth of cover (approximately 1.0 m) which increases the potential for a future third party damage.
- d) *Potential for resource constraints around the holiday season.* With the bypass option Enbridge Gas would be required to add an additional emergency crew on stand-by for the duration of the tie-in work.
- e) *Potential for significant customer loss during the heating season should an outage occur on the line while the bypass option is being executed (see Table 1 below).*

For these reasons, Enbridge eliminated the bypass option.

In the original application, there were two options to tie-in the pipe: (1) to tie-in during the planned maintenance shutdown of a large volume customer, and (2) to use a bypass if the planned maintenance option was missed in Fall 2019. As a result of the permitting delays, the earliest that the tie-in could occur if the bypass option is utilized would be December 2019, with completion in Q1 2020.

Enbridge Gas explained that, in its view, it will only be using the Bridge for an additional three months, with the deferred tie-in option, as Enbridge was delayed in starting construction of the Pipeline due to permit delays. In Enbridge's view, using the Bridge for up to an additional three months does not outweigh the operational risks and network constraints associated with the bypass option outlined above. Enbridge Gas noted that it had taken steps to mitigate the risk of the Bridge failing by executing a bridge abutment remediation plan, which used articulated concrete block mats to mitigate against further erosion of the riverbank around the abutment². This work was completed in September of 2017 and reduced the probability of Bridge failure in 5 years from 4.90% to 2.47%. This equates to a 50% reduction in the probability of Bridge failure in 5 years, and is the reason that Enbridge Gas believes the risk of the extended use of the Bridge is acceptable.

In its letter of November 28, 2019, Enbridge Gas provided commentary on the operational risks and costs associated with the two risk scenarios: a Bridge failure and a bypass failure. The results are summarized in Table 1: Risk Analysis.

² Exhibit B, Tab 1, Schedule 1, Page 6

Table 1: Risk Analysis

Option	Risk	Timing of Risk	Customer Losses	Cost (\$ Millions)
(a)	(b)	(c)	(d)	(e)
Delay Tie-in	Bridge Failure in 5 Years	Spring	51,000	\$19.1
Perform By-Pass	By-Pass Failure	Winter	92,500	\$36.2

Findings

Based on its review of the November 1 and November 28, 2019 correspondence from Enbridge Gas, the OEB finds that the variance proposed by Enbridge Gas is the preferred option. The OEB hereby approves the proposed variance.

Yours truly,

Original Signed By

Christine E. Long
Registrar and Board Secretary

c: Mr. Guri Pannu, Guri.Pannu@enbridge.com