

Introduction

Enbridge Gas Inc. (the “Applicant” or “EGI”) has applied to the Ontario Energy Board (the “OEB” or “Board”), pursuant to Section 90 (1) of the *Ontario Energy Act, 1988* (the “Act”) for an Order granting leave to construct approximately 51.5 kilometres of Nominal Pipe Size (“NPS”) 4 pipeline and 39 kilometres of NPS 6 pipeline to replace the existing London Lines (“London Line Replacement Project”, “Proposed Pipeline” or “the Project”).

Enbridge Gas has also applied to the OEB pursuant to Section 97 of the Act for an Order approving the form of easement agreements found at Exhibit E, Tab 2, Schedule 3 and Exhibit E, Tab 2, Schedule 4.

In considering an approval under Section 90, the Board has previously provided the test:¹

Section 96(1) of the Act provides that the OEB shall make an order granting leave to construct if the OEB finds that the “construction, expansion or reinforcement of the proposed work is in the public interest”. When determining whether a project is in the public interest, the OEB typically examines the need for the project, project alternatives, project cost and economics, environmental impacts, land matters, and Indigenous consultation.

The following are the submissions the Federation of Rental-housing Providers of Ontario (FRPO) focused on the matter of the requested Section 90 approval and the public interest aspects of need, alternatives and cost/economics found in Section 96.

SUMMARY

EGI has not presented compelling evidence for the need to replace the entire London Lines system. The evidence on Need points to the ongoing management, maintenance and periodic replacement of segments which is a prudent approach for an aging pipeline system. The Alternative of targeted replacement of segments of Lines aligned with a

¹ EB-2019-0172 Decision and Order, issued April 1, 2020, page 4

long-term plan is not presented by the company but it is one FRPO would recommend. The Cost and Economics which should demonstrate the investment efficacy of complete replacement are not provided as they are for other replacements. There is no compelling reason to replace the entire system and we urge the Board to deny the application. In the alternative, the Board could require the applicant to enhance the evidence which can be appropriately tested prior to spending in excess of \$100 million funded by ratepayers.

Need for the Project

It is abundantly clear that the London Lines are amongst the oldest pipe in the legacy Union Gas system.² However, when considering whether the pipe should be replaced, a number of factors need to be considered in the public interest. The condition of the pipe and its ability to function safely and effectively are key considerations.

There is No Evidence of Outages

A primary consideration of a gas utility is system integrity providing for continuous service. Many reports in the interrogatory responses refer to mitigation of conditions that could cause outages for customers. However, amongst of all the information provided, there is no evidence of outages.

In its pre-filed evidence, EGI emphasized the risks associated with the compression couplings that are unrestrained.³ One of the most catastrophic risks is pull-out which would result in a substantial gas leak and likely outages. However, as provided upon inquiry, there is no known instance of pull-out on either of the London Lines.⁴ Further, as will be discussed later, much of the Dominion Line is actually welded and not at risk for this type of failure.⁵

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

³ Exhibit B, Tab 1, Schedule 1, Page 4

⁴ Exhibit I.EP.3 b) and 4 b)

⁵ Exhibit I.BOMA.5, Attachment 3, page 5

Even still, ongoing deterioration of the condition of a pipe creates risks for system integrity. Key quantifiable characteristics of condition for steel pipe are the state of its cathodic protection and known leak history.

Recent Cathodic Protection Records Demonstrate Adequacy

Steel pipes will naturally corrode if not properly protected. While there are a number of methods of protection, a quantifiable criterion for protection is the pipe-to-soil potential of the pipe. This reading measures the amount of cathodic protection on the pipe. As provided in response to inquiry, EGI provided over 200 pipe-to-soil readings measured in 2020.⁶ With the exception of four readings, the rest of the readings easily surpassed the industry standard of 0.85V. In our experienced opinion, the four locations ought to be considered for further investigation and potential additional mitigation or renewal. On the other hand, in spite of the pipes' age and history, the cathodic protection readings do not support the entire replacement of the system. This opinion is supported in EGI's 2020 Distribution Integrity Management Program review of the London Lines.

*"Based upon these calculations and corrosion rate data available we would not expect to see a significant increase in the number of corrosion leaks on this line for another 37 years"*⁷

Leak History Does Not Support Replacement of the System

One of the benefits of protecting vintage steel pipe with cathodic protection is reduced corrosion. Corrosion can result in pipeline leaks. EGI initially provided in its pre-filed evidence that:

*"The London Lines between 2013 and 2019 had a leak rate of 0.43 leaks/km/year, which is over 10 times greater than the available average leak rate for the steel main population."*⁸

⁶ Exhibit I.EP.3 and 4

⁷ Exhibit I.FRPO.5, Attachment 1, Page 8

⁸ Exhibit B, Tab 1, Schedule 1, Page 6

This statement taken as fact would certainly advance the priority of the London Lines for refurbishment, renewal or replacement. This statement was highlighted in the Condition Assessment that EGI was relying upon in stating that the Lines should be replaced.⁹

However, in response to inquiry, EGI stated that this was a notarization error and the real rate was 0.043 leaks/km/year.¹⁰ The logical extension of this correction is that the London Lines rate of leaks is about average for the steel main population and therefore does not prioritize the London Lines in any way, let alone for complete replacement. Even prior studies identified that leakage on the London Lines was generally C leaks and manageable.¹¹

The interrogatory response that provided that correction also provided a more extensive breakdown of the number and nature of those leaks. While we wanted to provide additional assistance in analyzing this information, we defer to the submissions of APPrO¹² who have provided an insightful analysis in their submissions which we adopt and support to conclude that the evidence on leak history does not support replacement of the system.

When the above factors of outages, cathodic protection and leaks are taken together, there is no compelling need for the complete replacement of the London Lines. That is not to say that targeted replacement of certain sections is not required. In fact, that approach has been recommended previously by Union Gas staff.¹³

⁹ Exhibit B, Tab 1, Schedule 1, Pages 5-6

¹⁰ Exhibit I. APPrO.2 d)

¹¹ Exhibit I.BOMA.5, Attachment 2, page 7

¹² APPrO_SUB_EGI_London Lines LTC_20201214, paragraphs 11-24

¹³ Exhibit I.BOMA.5, Attachment 2

Alternatives

Alternatives Presented Do Not Consider Phased Replacement

The London Lines have been studied three times in the last 20 years prior to the Risk Assessment cited in evidence and filed in response to inquiry.¹⁴ These three studies authored by Hooper, Wellington, and Chen.¹⁵ Each of the studies concluded similarly that the London Lines should be replaced in segments. In fact, the Wellington study provided costing and prioritization of the segments that should be replaced first. In our respectful submission, this an appropriate phased approach that ought to have been considered in at this juncture.

EGI provided a summary of several full replacement alternatives including cost estimates associated with each alternative.¹⁶ Absent from the alternatives was phased replacement of segments prioritized by condition assessments of the respective segments. Given that there are two parallel lines in most locations individual pipes that have been determined as higher risk due to leaks or other factors could be removed strategically while maintaining feed with the parallel segment of the other Line.

This approach was provided in the Wellington report.¹⁷ The Wellington report identified that the London South Line was a greater risk and that segments could be strategically identified, replaced, and abandoned with the services tied over to the London Dominion Line. This type of triage is sound, analytical and information-based and can be used to economically address higher risk parts of the system. If the goal is to eventually have a smaller pipe system run at higher pressures, the higher risk segments could be replaced with NPS 4 or 6 pipe designed to be capable of running at the higher 3450 kPa. Given the existing segments of Dominion Line are still in place, the smaller size replacement segments could be run at the lower existing line pressures.

¹⁴ Exhibit I.FRPO.1

¹⁵ Exhibit I.BOMA.5 Attachments 1,2 and 3

¹⁶ Exhibit B, Tab 2, Schedule 5

¹⁷ Exhibit I.BOMA.5 Attachment 2

This approach is sound, risk-based and economically prudent. Where this approach could run into challenges is when segments near the supply at Dawn need to be replaced. Replacing those segments with smaller diameter pipes run at the lower operating pressures could result in a bottleneck unless a back-feed is available. Historically, the London Lines ran from Dawn to the Byron Transmission station as documented in the 2016 Engineering Asset Report (Chen Study)¹⁸ and shown in Figure 2 on page 3 of that report. The pre-filed evidence presented the London Lines terminating at Komoka. However, the existence of the extension of the London Lines to Byron was documented in the last Union Gas Asset Management Plan in November of 2018¹⁹ and in the EGI's most recent Asset Management Plan most recently revised October 5, 2020.²⁰

The importance of this back-feed was emphasized in the Chen study:

*"Given that the system is back fed from Byron Station (by the Trafalgars), it is unlikely that the pipeline would fail to the point of losing all of the customers on the line. Impacts from significant failure and leaks can be mitigated with stoppers and bypass fittings."*²¹

Given the importance of a back-feed for on-going security of supply for customers and as a means of allowing for a targeted, segmented replacement of the pipe, we asked EGI about the existence of this segment²² and key questions surrounding that potential existence. EGI's response communicated that the segment was removed due to integrity concerns with the last segment being removed in 2018 and that the reference from October of 2020 was incorrect.²³ This abandonment undertaken ahead of a more important decision on how to address the rest of the system creates questions regarding what was considered in the decision to abandon a segment of main that would be so key to a prudent, segmented replacement.

¹⁸ Exhibit I.BOMA.5 Attachment 3

¹⁹ Exhibit I.ED.1 Attachment 2, Page 196

²⁰ Exhibit I.ED.1, Attachment 1, Page 106

²¹ Exhibit I.BOMA.5 Attachment 3, Page 16

²² FRPO_REQUEST FOR CLARIFICATION_EGI LONDON LINES_20201214 signed

²³ EGI_REPLY_FRPO_20201214_esigned

Since we had asked for internal company reports, memos and authorizations that led to the abandonment and those questions were ignored, we asked again.²⁴ The EGI response did not address the Union Gas Asset Management Plan of November 2018 which specifically refers to the operating pressure in this segment. Further, EGI refused to answer those questions as “not relevant” and that they should not be required to disclose the information²⁵ while not addressing. FRPO disagrees.

To eliminate a potential back-feed that provided security of supply and construction options for tie-overs during non-peak conditions does not make sense. Even the last Union Gas Asset Management Plan, while identifying that the current proposal is a complete replacement, does not articulate any pressing need to address or abandon this key segment.²⁶ In our view, further discovery is warranted to understand the reasons behind such a sudden abandonment that limits construction options so dramatically resulting in the need for a new back-feed from Strathroy and a complete replacement of the system.

In our view, EGI ought to be required to defend why it cannot replace the London Lines in strategic segments. We expect that they would answer that they need a back-feed to do that. If and when EGI meets the Board’s satisfaction with its evidence, we would accept that the Strathroy back-feed is an advanced investment to facilitate a phased, strategic replacement of the London Lines over time.

Project Cost and Economics

The Evidence does not Provide a Sound Economic Approach

The Summary of Alternatives provides cost estimates for each of the total replacement approaches considered in the evidence. However, there is no information provided on a comparison of a phased removal of priority segments including the costs of maintaining

²⁴ FRPO_INFO REQUESTED_EGI LONDON LINES_20201214 esigned

²⁵ EGI_Reply_FRPO_20201215_esigned

²⁶ Exhibit I.ED.1 Attachment 2, Page 196-197

the remaining vintage pipes that may be eventually replaced. There is no information on these potential on-going costs in the pre-filed evidence but from what little has been provided,²⁷ the costs in recent years have not been substantial. What is missing is how those costs are escalating in a way that contributes to an imbalance favouring complete replacement aligned with EGI's stated framework.

“Enbridge Gas uses a clear framework for asset investment decision-making which balances risk, cost and performance throughout the asset life cycle. Decisions are made using the support of assessments of asset condition and risk. Over the life cycle of an asset, a spectrum of Risk Treatment options are applied based on the identified maintenance strategy for the asset. As the asset progresses through its life cycle, the probability and consequence of failure inform maintain versus renewal/retire decisions. The recent Risk Assessment performed on the London Lines showed that the imbalance between risk, cost and performance supports a move away from maintaining these assets and more towards renewal of the assets, as they are nearing end-of-life.”²⁸

When we asked about this recent Risk Assessment,²⁹ we were provided with a qualitative assessment that somehow is supposed to show an imbalance. We do not see it. Nor was additional verbiage provided that would inform even an experienced individual what factors shifted in a way that created imbalance. The segmented version³⁰ that provides more detail provides two Consequence Comments repeated for multiple segments which does not multiply the effect. The macro version³¹ describes the pipeline but does not provide any significant shift except one notable exception. In the Chen study, the existence and importance of the back-feed was cited reducing the risks for supply reliability.³² In the referenced table under Customer Impact, the risk expands to thousands of customers due to the now single-feed system because EGI chose to remove the back-feed.

²⁷ Exhibit I.EP.6 and Exhibit I.FRPO.1, Attachment 1, pages 5-6

²⁸ Exhibit B, Tab 1, Schedule 1, Pages 13-14, paragraph 30

²⁹ Exhibit I.FRPO.1

³⁰ Exhibit I.FRPO.1, Attachment 1, pages 5-6

³¹ Exhibit I.FRPO.1, Attachment 1, pages 2-4

³² Exhibit I.BOMA.5 Attachment 3, Page 16

EGI was asked to provide comparable assessments for other steel lines and we were informed that “*There are no steel pipelines for which the risk assessment can be presented in a comparable manner at this time.*”³³ In that same response, they state that the assessment has been applied to other pipelines including the Kirkland Lake line. The Kirkland Lake Lateral Replacement is included as the project just before the London Lines in the Investment Summary Report included in the EGI Asset Management Plan. In the summary, the following information is provided.

*“The NPV analysis for replace versus repair shows a strong recommendation towards replacing the main as the least costly option.”*³⁴

We have documented above in the Need section of these submissions how the performance of system was more than adequate. There is no cost comparison of the cost to maintain and potentially refurbish or replace segments with the cost to replace the entire system. If the only aspect the Board can rely upon in this Assessment is there is a greater customer impact because the system is single fed, we do not believe EGI has demonstrated a prudent approach to investments as provided in its own criteria cited above.

CONCLUSION

As described above, FRPO respectfully urges the Board to reject the application or, in the alternative, require EGI to provide more evidence on targeted, segmented phasing of the replacement of the London Lines including costs and economics.

ALL OF WHICH IS RESPECTFULLY SUBMITTED ON BEHALF OF FRPO,

Dwayne R. Quinn
Principal
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³³ Exhibit I. APPrO.4 f)

³⁴ Exhibit I.ED.1, Attachment 1, Page 395