

ONTARIO ENERGY BOARD

IN THE MATTER OF The Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B, and in particular, s.90 (1) and s.97 thereof;

AND IN THE MATTER OF an Application by Enbridge Gas Inc. for an Order granting leave to construct natural gas pipelines and ancillary facilities in the Municipality of Chatham-Kent and County of Essex.

Argument Submission of
Energy Probe Research Foundation

February 10, 2020

Enbridge Gas Inc. Windsor Pipeline Project

Executive Summary

Enbridge Gas (“the Company”) has applied for a leave to construct order from the OEB for approximately 64 km of NPS 6 gas pipeline, to replace a section of the existing Windsor NPS 10 pipeline and short sections of NPS 8 pipeline located in the Municipality of Chatham-Kent and the County of Essex. The Company estimated the cost of the project to be \$106.8 million. Energy Probe submits that the Company has failed to provide adequate evidence that would allow the OEB to approve its application. However, should the OEB decide to approve the project, the cost estimate should be reduced by the non-incremental allocated OM&A costs that are already recovered in base rates: Indirect Overheads of \$14,061,000 and the \$1,547,000 Engineering cost and the \$450,000 Regulatory cost. The cost estimate should also be reduced by the \$440,175 excess Contingency on Materials. The total reduction recommended by Energy Probe is \$16,498,175.

Inadequate Integrity Evidence

The need for the project according to Enbridge Gas evidence is the existence of multiple integrity and depth of cover issues and the age of the pipeline some of which was installed in the 1930s, 1940s and 1950s.¹

There is very little evidence on the record that the OEB can rely on to support that claim by Enbridge Gas. For example, there is no Integrity Report from an independent expert. What evidence is provided is of a summary nature. In response to an undertaking request the Company provided an internal report that provides some additional integrity information.² Since one justification for the project are high maintenance and repair costs, one would expect that the

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

² Undertaking JT1.17

internal report to management would include a discounted cash flow repair vs replace analysis which it does not. Perhaps the reason for not doing the analysis is that maintenance and repair costs are too low to justify

There is a reference to a “history of leakage” but no details were provided in pre-filed evidence as to the number of leaks and their frequency. In response to interrogatories the Company disclosed that there were “24 active leaks and 3 inoperable mainline valves” based on a July 2019 leak survey³. It should be noted that a report dated June 2018 mentions “16 active C-leaks and 3 inoperable mainline valves”⁴. This information seems inconsistent with the response to an undertaking from FRPO which mentions 24 C-leaks in 2018 and 1 B-leak⁵. The Company in its evidence does not explain the difference between a C-leak and a B-leak. It also does not explain the difference between an “active” and an “inactive” leak. During Technical Conference Enbridge provided more information about types of leaks but it was of a very general nature.⁶ Apparently, the Company wants the OEB to be concerned about leaks, but it failed to adequately explain why. Considering that leaks appear to be the main reason for this very expensive \$106.8 million project, the Company should have provided more supporting evidence. It is also disappointing that when it was given an opportunity to provide clarifying evidence during the Technical Conference it appeared either unable or unwilling to do provide it. Energy Probe asked for information that would compare the leak rate per km of this line to the leak rate per km on the rest of the Company’s distribution system, the Company refused to provide it⁷. As a result, the OEB does not know if the incidence of leaks on this line is significantly greater than the incidence of leaks elsewhere on the Company’s distribution system with pipe of similar vintage. Without this information Enbridge has failed to justify the replacement of the Windsor Line due to leaks.

Another serious problem with the evidence about leaks, is the glaring inconsistency about their nature. The pre-filed evidence mentions “unrestrained mechanical joints”⁸ as being a problem.

³ Exhibit I, STAFF.2, page 2

⁴ Undertaking JT1.17, Attachment 2, Page 6

⁵ Undertaking JT 1.19

⁶ Technical Conference Tr. Pages 90 and 91

⁷ Ibid, Page 60

⁸ Exhibit B, Tab 1, Schedule 1, Page 2

On reading the evidence one could draw the conclusion that these joints were the main cause of the leaks. During the Technical Conference the Company witnesses were unable to explain what is an “unrestrained mechanical joint” or why it is a problem that the OEB should be concerned about⁹. Apparently, according to the witnesses, these joints are not the main cause of the leaks. It came out that corrosion is the main cause of the leaks because some of the pipe is bare steel. No evidence was provided on the extent of bare steel on this line. From the evidence it appears that such corrosion could have been stopped from occurring through better cathodic protection. From what the Company’s witnesses said, cathodic protection is used by gas distributors to prevent corrosion by keeping the pipe at a negative potential to the soil by means of sacrificial anodes or impressed current rectifiers. It is not clear from the evidence if the Company adequately explored this alternative to the \$106.8 million replacement. Surprisingly, Enbridge’s Argument-in-Chief does not even mention corrosion as being the cause of the leaks.

In the Application and Evidence there is a mention of the “depth of cover issues”¹⁰ with only explanation that there are “sections that have poor depth of cover with less than 0.6m”¹¹ but no information about how many sections and their location¹². More information is provided in response to an interrogatory by Board Staff¹³. It is disclosed that there are only 19 km of pipe at the depth of cover of less than 0.6m and that there are 23 locations with exposed pipe. The Board still does not know if these 19 km are concentrated in a particular section or are distributed throughout the entire length of the existing pipeline. Since the pipeline has been in operation for many years one would expect that the management might have attempted line lowering in the past to increase the depth of cover. Enbridge Gas evidence provides no information.

There is a statement that “portions of the older vintage pipe are not weldable”¹⁴. There is no information in the pre-filed evidence about which portions and the material issues with them. Are these portions of cast iron pipe which is not weldable? How extensive are these portions? Enbridge Gas provides no information. During the technical conference Enbridge witnesses

⁹ Technical Conference Tr. Pages 62 to 66

¹⁰ Ibid, Page 1

¹¹ Ibid, Page 2

¹² Ibid

¹³ Exhibit 1, STAFF.2

¹⁴ Exhibit B, Tab 1, Schedule 1, Page 2

disclosed that reason some of the pipe is not weldable was due to presence of a “laminations”¹⁵ defects in the steel pipe. There was no evidence that if the laminations defects are widespread or localized. If the defects are in only few locations, the majority of the affected pipe would still be weldable. Since the Windsor Line consists of pipe sections installed in the 1930’s, 1940’s and 1950’s it is unlikely that all of the pipe would be of identical steel composition or have identical weldability issues. It is surprising that Enbridge was unable to provide better technical evidence in support of its claim that portions of the older vintage pipe are not weldable. It is noteworthy that Enbridge’s Argument in Chief has only a brief mention of weldability issues.¹⁶

There is a statement that “sections of this pipeline are not located in easement”¹⁷. No details are provided regarding the length of the sections or their location. One expects that the management of a prudent gas distributor would ensure that all its pipelines are located in easement and would acquire additional easement if they are not in easement. The alternative solution to this problem would be for Enbridge Gas to acquire additional easement. There is no evidence that the Company considered that option. At the Technical Conference Enbridge admitted that this issue was rectified 10 years ago¹⁸ and is not a problem¹⁹.

There is a mention of “inoperable mainline valves”²⁰. No details are provided as to how many valves are inoperable and why. At the Technical Conference Enbridge witnesses were given the opportunity to provide clarifying information about the extent and nature of the problem with the valves and were unable to provide it. They also refused to provide any information on the extent of the inoperable valves elsewhere in the Union Gas Rate Zone system²¹. Without this evidence it is not possible to draw a reasonable conclusion regarding the urgency for the Windsor Line Replacement project. It is possible that there are other parts of the Union Gas Rate Zone system that have a greater problem with inoperable valves and are of greater priority. Enbridge witnesses did not provide much information about regular valve maintenance that would have

¹⁵ Technical Conference Tr. Page xx

¹⁶ AIC page 5

¹⁷ Exhibit B, Tab 1, Schedule 1, Page 2

¹⁸ Technical Conference Tr. Page 75

¹⁹ Ibid, Page 77

²⁰ Exhibit B, Tab 1, Schedule 1, Page 2

²¹ Technical Conference Tr. Pages 57 to 59

prevented the valves from becoming inoperable. One would expect that a prudent gas distributor that has been in operation for a long time, would have valve maintenance procedures in place to ensure that all its mainline valves are operable. This raises questions about the prudence of management decisions. It is possible that management deliberately deferred maintenance of the valves to reduce OM&A spending in order to maximize shareholder profits during Union's IRM period.

Since integrity is the only justification for this project, Energy Probe believes that there is inadequate evidence on the record for the OEB to approve this very costly \$106.8 million project.

Non-incremental Costs should not be charged to an Incremental Project

Enbridge Gas is requesting ICM funding for this project.²² Since ICM funding is for a rate rider to recover incremental costs of a project that are not already being recovered through existing rates, the onus is on Enbridge Gas to prove that the project costs are truly incremental. The evidence on the record does not support this.

Indirect overheads of \$14,061,000²³ are a capitalization of allocated OM&A costs consisting of HR, IT, Finance, Legal already recovered in Union Rate Zone Incentive Regulation base rates.²⁴ Capitalization of these OM&A costs would result in Enbridge Gas being paid twice for the same costs. The same problem exists with non-incremental internal Engineering and Regulatory costs already recovered in Custom IR rates²⁵. Unless Union Gas has contracted out Engineering and Regulatory services for this project, the capitalization of Engineering costs of \$1,547,000 and Regulatory costs of \$450,000 should not be capitalized as these costs are already recovered in base rates.

²² Exhibit I.EP.1

²³ Exhibit C, Tab 4, Schedule 1, Page 1

²⁴ Exhibit I.EP.6

²⁵ Exhibit I.EP.5

It is not clear from the evidence why the OEB should accept the \$14,061,000 amount. The only reason given is that it is “calculated using indirect overhead rate of 15% on materials, construction and labour, and contingencies estimates”.²⁶ Why 15%, why not for example 14% or 16%, and why should indirect overheads be applied to a total that includes a 15% contingency? Enbridge failed to provide any supporting evidence for its calculation.

Energy Probe submits that the indirect overhead cost of \$14,061,000 and the \$1,547,000 Engineering and the \$450,000 Regulatory costs should not be part of the request for incremental funding from ratepayers as they are already recovered through base rates. By definition, an ICM project is an incremental project. Energy Probe is not aware of any other distributors that applied for inclusion of non-incremental costs in an ICM project nor has the OEB ever approved it.

Concerns with Engineering and Construction Evidence

According to the evidence the primary source of cost estimates are contractor “courtesy bids”.²⁷ It should concern the OEB that Enbridge Gas is relying on construction contractors that would be awarded the construction contract for this project to provide Enbridge with the cost estimate. The contractor providing such an estimate would have an incentive to provide a high estimate in order to maximize profit. Enbridge has not provided any evidence such as average costs of similar projects that would provide confidence to the OEB.

Another concern to the OEB should be that the estimate of Contingency is a simple 15% applied to all categories of expenditures²⁸ instead of having different contingencies on labour and materials. Contingency is an estimate of costs of dealing with unforeseen circumstances or unknown events. The risk of such circumstances or events is lower for materials than for construction labour. Industry practice is for contingency on materials to approximately half of the contingency on labour. Based on the evidence of the total materials cost estimate for the

²⁶ Exhibit I.EP.3; Undertaking JT1.20

²⁷ Ibid

²⁸ Ibid

project of \$5,869,000²⁹, the Contingency should be reduced by 7.5% of that amount or \$440,175. Energy Probe believes that the appropriate Contingency should be \$11,522,825. Another concern is that Enbridge has no policy on the use of contingency.³⁰ It appears that Contingency funds will be released when the management decides to release them. Energy Probe believes that prudent project management of large construction projects should have a formal policy in place for the use of contingency funds.

Another management deficiency is that Enbridge Gas does not have incentives in place to ensure capital projects are completed on budget and on time.³¹ Energy Probe believes that utilities under incentive regulation should have incentives to ensure that OEB approved capital projects are completed on time and on OEB approved budget. Enbridge Gas is currently under a five-year Incentive Regulation plan and project cost variances and resulting impacts on revenue requirement may not be known for several years.

Lack of Repair vs Replace Evidence

The Company presented no discounted cash flow (DCF) analysis of the repair vs replace alternatives. It appears from the evidence, that the management was not presented or did not request such an analysis. It is hard to see how management could have approved this \$106.8 million project without such an analysis. There is also no rate impact analysis of alternatives. It appears that the management of the Company was either incompetent or imprudent or had other motives in approving this project. One possible motive was that Enbridge Gas management was directed by its parent company Enbridge Inc. to find ICM projects that would enhance the bottom line of the company by transferring costs that should have been borne by shareholders to ratepayers.

²⁹ Exhibit C, Tab 4, Schedule 1, Page 1

³⁰ Exhibit I.EP.4

³¹ Exhibit I.EP.2

Gaming the Regulatory Process

The Company is currently in a five-year re-basing deferral period. During a re-basing deferral period, distributors are expected to manage their Capital and OM&A needs within the rate setting formula. The exception to this are non-recurring major capital projects that can not be delayed until the next re-basing. If approved the cost of such projects can be recovered from ratepayers through a rate rider that is incremental to the rates that would otherwise be charged, the Incremental Capital Module (ICM).

To maximize its profits, a distributor could defer maintenance on its facilities, by reducing OM&A which are a shareholder expense, to create a justification for replacement of those facilities through an ICM, which is a ratepayer expense.

It appears from the evidence that Enbridge is deferring maintenance on this line, which would have been paid by the shareholder during the deferral period, in order to justify its replacement on integrity grounds and recover 100% of the cost from ratepayers. Prior to the OEB's approval of the merger of Enbridge Gas Distribution and Union Gas the two distributors were not eligible for ICM, although Union Gas was allowed to pass through certain capital expenditures for recovery from ratepayers. The merger decision allowed the merged company, Enbridge Gas Inc. to apply for ICM projects during the five-year re-basing deferral period³². This created the incentive for the merged company to defer maintenance expenses in order to justify ICM projects like this one. It should be noted that there were 20 leaks on this line in 2017, so the integrity issues were known to the management prior to the merger decision³³. Energy Probe is concerned that the Company appears to be gaming the regulatory process of the Board.

³² EB-2017-0306/0307 Decision, August 30, 2018, page 32

³³ JT1.19

Technical Conference witnesses were poorly prepared

A review of the evidence indicated the following Company employees were involved with this project or had some responsibility for it: Ryan Park³⁴, Ken McCorkle³⁵, Laurel Whitwham³⁶, Shawn Khoshaien³⁷, Angela Scott³⁸, Neil Quenneville³⁹, Mike Shannon⁴⁰, Dave Lamoureux⁴¹, and Rob Marson⁴². Of these only Neil Quenneville appeared as a witness at the Technical Conference. He was joined by two other witnesses, Neerajah Raviraj and Todd Piercey, who seemed to have had no direct involvement with the project and very limited knowledge about it. Even Mr. Quenneville's involvement in the project seems questionable. He is responsible for projects up to \$2 million⁴³ so it is not clear what responsibility he has for this \$106.8 million project. There are two possible explanations why Enbridge failed to provide better prepared witnesses for the Technical Conference. One explanation is that Enbridge has lost experienced employees due to the post-merger staff reductions. The other explanation is that bringing unprepared witnesses to the Technical Conference was a regulatory strategy to prevent disclosure of technical information. Both explanations should be a cause for concern to the OEB.

Inadequate Evidence on Pipe Size Alternatives

Energy Probe believes that the evidence and submissions of Enbridge on its consideration of alternative pipe sizes is inadequate. Energy Probe has seen a draft argument submission of FRPO and supports FRPO on this matter.

³⁴ EB-2019-0172, Exhibit I, STAFF.9, Attachment 1, Page 2 of 3

³⁵ Exhibit I, Staff 11, Att. 2, Page 3

³⁶ *ibid*

³⁷ JT1.17, Attachment 1, page 1

³⁸ *ibid*

³⁹ Exhibit JT1.17, Attachment 2, Pages 2 and 3

⁴⁰ Exhibit JT1.17, Attachment 2, Page 3

⁴¹ *ibid*

⁴² Exhibit JT1.17, Attachment 2, Page 5

⁴³ Tr. Page 3

Conclusion

In conclusion, Energy Probe submits that there is insufficient evidence on the record for the OEB to approve this \$106.8 million project based on integrity grounds. However, should the OEB decide to approve the project, the cost estimate should be reduced by the non-incremental allocated OM&A costs that are recovered in base rates: Indirect Overheads of \$14,061,000 and the \$1,547,000 Engineering cost and the \$450,000 Regulatory cost. The cost estimate should also be reduced by the \$440,175 excess Contingency on Materials. The total reduction recommended by Energy Probe is \$16,498,175.

Respectfully submitted on behalf of Energy Probe by its consultant,

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