

EB-2020-0192
Enbridge – London Lines Replacement Project – Leave to Construct

Interrogatories of Environmental Defence

Need

Interrogatory 1

Reference: Exhibit B, Tab 1, Schedule 1, Page 15

“The London Lines is on the list of prioritized projects, as identified in Enbridge Gas’s Asset Management Plan.”

Questions:

- (a) The problems with London Lines appear to have existed for quite some time. Please explain why the replacement is a priority now and yet was not in, say, 2005?
- (b) Please file a current copy of Enbridge’s latest Asset Management Plan.
- (c) Please file a copy of any previous versions of Enbridge’s Asset Management Plan that include London Lines as a prioritized project. If it is not apparent from the face of the document, please indicate in the response the date of the document.
- (d) Please file the earliest list of prioritized projects that includes London Lines.
- (e) When did Enbridge first identify the London Lines as a prioritized project?
- (f) Please provide a detailed timeline listing and describing the steps taken by Enbridge with respect to the identification and development of this project.
- (g) There are three previous reports regarding the London Lines listed in Exhibit B, Tab 2, Schedule 1, Attachment 1, Page 3. Please file those reports. Please provide a table in the response that summarizes (a) the findings and (b) the recommendations of each report.
- (h) Why were the London Lines not identified as a priority project back in 2002 to 2005 in light of the findings of the 2002 and 2004 reports prepared on the London Lines?

Interrogatory 2

Reference: Exhibit B, Tab 1, Schedule 1, Page 3

“Enbridge Gas’s Distribution Integrity Management Program (“DIMP”) continually evaluates assets to identify risks and determine the condition of pipelines in the distribution network. Analysis conducted by Enbridge Gas has shown that the existing London Lines are in poor condition and have several active degradation factors, including loss of containment, shallow depth of cover, and corrosion induced wall loss.”

Questions:

- (a) Please file any guidelines and procedures that govern Enbridge Gas's Distribution Integrity Management Program ("DIMP").
- (b) Please list and describe the kinds of reports prepared pursuant to Enbridge Gas's Distribution Integrity Management Program.
- (c) Please file all materials prepared as part of Enbridge Gas's Distribution Integrity Management Program in relation to the London Lines.
- (d) Please compare what was known of the London Lines pipeline condition pursuant to DIMP on (a) January 1, 2010, (b) January 1, 2015, and (c) January 1, 2020.

Interrogatory 3

Reference: Exhibit B, Tab 1, Schedule 1

Questions:

- (a) When was Enbridge first aware that "there could be in excess of 6,000 unrestrained compression couplings"? (see p. 3)
- (b) When was Enbridge first aware that it did "not have sufficient records identifying the existence and location of" the compression fittings on the London Lines? (see p. 4)
- (c) When was Enbridge first aware that "[r]ecords indicate that the pipe used for reclamation had multiple instances of laminations along with surface corrosion resulting in flaking of the pipe"? (see p. 4) Please file those records.
- (d) Please provide a table for the London Lines indicating (a) each leak, (b) the class, (c) when discovered, and (d) when repaired. (see p. 8)
- (e) Enbridge states on page 9 that "[f]urther analysis of the data shows that the areas where the pipe is within Agricultural land use (approximately 63% of the measurements), 85% of the measurements did not meet the minimum internal standard for depth of cover to protect against heavy cultivation damage." When was Enbridge first aware of this? When was Enbridge first in possession of the underlying data?
- (f) When was Enbridge first aware that "over 36% of the London Lines has a depth of cover less than 0.75 m³"? (see p. 9)
- (g) Enbridge states on page 13 that "[f]eedback gathered by the Company shows consistently high amounts of corrosion across many lengths of pipe." When was this information obtained?
- (h) Enbridge states on page 19 that "[a] new Pipeline is also proposed to start at Strathroy Gate Station (Calvert Drive, Municipality of Strathroy-Caradoc). It will be NPS 6 and run for 8.4 km along Sutherland Road." When did Enbridge first consider this option?

Interrogatory 4

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

Question:

- (a) Please provide a map showing how London Lines connects into the wider gas transmission system. Please include arrows to show the direction of flow at peak. Please at least label the London Lines and the pipelines feeding the London Lines.

Alternatives and IRP

Interrogatory 5

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

“Enbridge Gas compared the proposed replacement project to the cost of investment in supplemental DSM programming sufficient to reduce hourly peak system demands to the point that sections of the existing pipeline could be replaced with a smaller diameter NPS 4 pipeline. Enbridge Gas found that the cost of investment in sufficient supplemental DSM programming to reduce system demands by 359 m³/h was approximately \$4.3 million over two years. This solution would only provide peak hourly system demand reductions sufficient to defer the need for the proposed project or a further pipeline expansion project by two years based on Enbridge Gas’s current demand forecasts. The cost to execute a supplemental DSM program that satisfies the forecast demand would exceed the \$2.9 million in cost savings of the downsized project design.”

Questions:

- (a) Enbridge states that it “compared the proposed replacement project to the cost of investment in supplemental DSM programming sufficient to reduce hourly peak system demands ...” Please explain why Enbridge conducted its analysis based on hourly peak system demands versus design day demands.
- (b) Please file all analysis and spreadsheets underlying the information provided in Exhibit B, Tab 2, Schedule 4.
- (c) How did Enbridge determine that “the cost of investment in sufficient supplemental DSM programming to reduce system demands by 359 m³/h was approximately \$4.3 million over two years”? Please provide all details and calculations.
- (d) When did Enbridge first conduct the analysis to determine that “the cost of investment in sufficient supplemental DSM programming to reduce system demands by 359 m³/h was approximately \$4.3 million.” Please provide the month and year.
- (e) Do the above two references examine the same DSM alternative? If they are different, please explain why.

- (f) Enbridge says that “the need for replacement of the London Lines cannot be deferred.”¹ Elsewhere, Enbridge says DSM could “defer the need for the proposed project or a further pipeline expansion project by two years based on Enbridge Gas’s current demand forecasts.”² Please explain.
- (g) Putting aside cost issues, is there enough time for Enbridge to implement a DSM program to defer the need for an NPS 6 pipe versus an NPS 4 pipe for the 10.3 km in question? If not, why not?
- (h) Is there enough lead time to implement alternative 5 (replace with NPS 6/4 3450 kPa line, reducing proportion of NPS 6 through supplemental DSM).
- (i) Please list all large use customers on the London Lines and indicate when, or if, Enbridge most recently reached out to them to determine if they might be interested in an interruptible contract.
- (j) What is the peak hourly demand for all large use customers on the London Lines (aggregate)? Please use the peak demand figures used for planning purposes and explain the assumptions around whether this assumes a coincident system peak demand.
- (k) Please explain why the DSM alternative explores replacing only 10.3 km of the NPS 6 pipe with an NPS 4, not a larger portion of the 39 km of planned NPS 6 pipe?
- (l) How much could be saved by replacing (i) all 39 km of the NPS 6 pipe with NPS 4 pipe and (ii) half of the NPS 6 pipe with NPS 4 pipe. Please provide the underlying details and calculations.
- (m) How did Enbridge determine that downsizing from NPS 6 to NPS 4 for 10.3 km would save \$2.9 million? Please provide the underlying details and calculations.

Interrogatory 6

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

“The cost to execute a supplemental DSM program that satisfies the forecast demand would exceed the \$2.9 million in cost savings of the downsized project design. The cost to execute a supplemental DSM program that satisfies the forecast demand would exceed the \$2.9 million in cost savings of the downsized project design.”

Questions:

- (a) Please provide the demand forecast underlying the above quote.
- (b) Please indicate the demand thresholds at which:
 - a. 10.3 km of NPS 6 can be replaced with NPS 4;
 - b. Half of the NPS 6 can be replaced with NPS 4; and

¹ Exhibit B, Tab 2, Schedule 2, Page 13.

² Exhibit B, Tab 2, Schedule 4, Page 1.

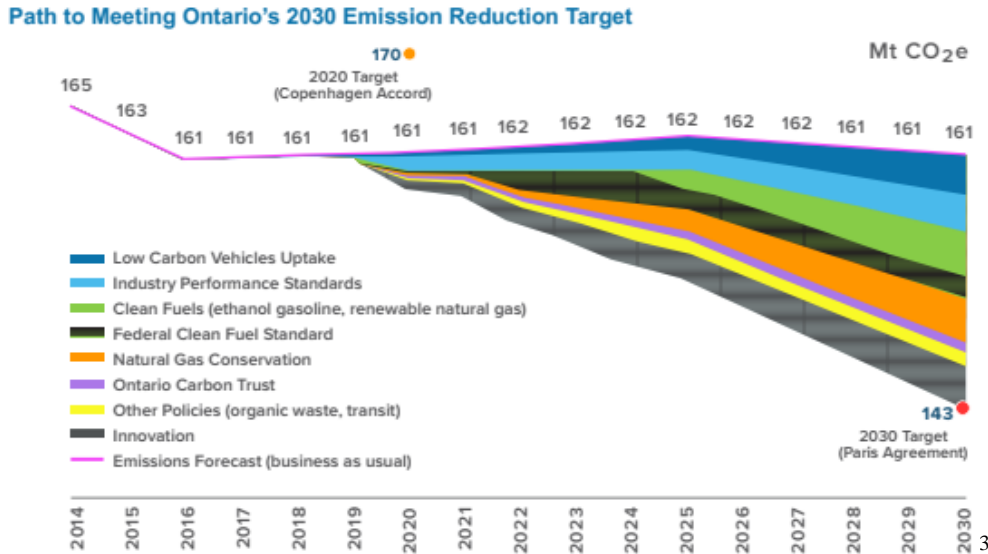
- c. All 39 km of NPS 6 can be replaced with NPS 4.
- (c) Please provide a demand forecast for the London Lines of the (i) annual demand, (ii) average daily demand, and (iii) design day demand. Please provide the forecast for each year for as long a period as is reasonably feasible.
- (d) Please indicate the thresholds for (i) annual demand, (ii) average daily demand, and (iii) design day demand at which:
 - a. 10.3 km of NPS 6 can be replaced with NPS 4;
 - b. Half of the NPS 6 can be replaced with NPS 4; and
 - c. All 39 km of NPS 6 can be replaced with NPS 4.

Interrogatory 7

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

Preamble:

Ontario’s Environment Plan includes targets for carbon emissions to decline from natural gas use over the coming decade and by 3.2 MT by 2030. The decline is illustrated in orange in the below excerpt from the Environment Plan:



Questions:

- (a) Please recreate the demand forecasts referenced in Environmental Defence Interrogatory # 6(a) and (c) on the hypothetical assumption that Ontario’s meets its Environment Plan targets with respect to DSM for 2021 and going forward. Please answer the question on a

³ Government of Ontario, *A Made-in-Ontario Environment Plan*, November, 2018, p. 23.

best-efforts basis and with any caveats as necessary. Please make assumptions as necessary and state all assumptions.

- (a) The Environment Plan targets require declining carbon emissions from gas and thus declining gas use:
 - (i) If this comes to pass, could part or all of the NPS 6 pipe be replaced by an NPS 4 pipe? Please explain.
 - (ii) If gas usage declines in accordance with the Environment Plan, at what point in time will the proposed NPS 6 be unnecessary to meet customers' needs? Please explain.
- (b) Please file a copy of the Environment Plan.

Interrogatory 8

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

“The cost to execute a supplemental DSM program that satisfies the forecast demand would exceed the \$2.9 million in cost savings of the downsized project design. The cost to execute a supplemental DSM program that satisfies the forecast demand would exceed the \$2.9 million in cost savings of the downsized project design.”

Questions:

- (a) Please recreate the demand forecasts referenced in Environmental Defence Interrogatory # 6(a) and (c) on the hypothetical assumption that all achievable cost-effective DSM had been implemented in the area served by the London Lines from 2017 onward. Please base your answer on the 2016 Achievable Potential Study commissioned by the OEB and the IESO. Please answer the question on a best-efforts basis and with any caveats as necessary. Please make assumptions as necessary and state all assumptions. For example, please make and state assumptions as necessary to address the fact that the potential study figures begin in 2019, which is now in the past.
- (b) Please recreate the demand forecasts referenced in Environmental Defence Interrogatory # 6(a) and (c) on the hypothetical assumption that all achievable cost-effective DSM is implemented in 2021 and going forward. Please base your answer on the 2019 Achievable Potential Study commissioned by the OEB and the IESO. Please answer the question on a best-efforts basis and with any caveats as necessary. Please make assumptions as necessary and state all assumptions. For example, please make and state assumptions as necessary to address the fact that the potential study figures begin in 2019, which is now in the past.
- (c) Please file the (i) 2016 DSM Potential Study and (ii) 2019 DSM Potential Study.

Interrogatory 9

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

Questions:

- (a) How has Enbridge been ensuring the ongoing safe and reliable operation of the London Lines despite their problematic conditions?
- (b) How long would it be sufficiently safe and reliable for Enbridge to continue to ensure the safe and reliable operation of the London Lines as described in (a).
- (c) How long could Enbridge provide for sufficiently safe and reliable operation of the London Lines through repairs?

Interrogatory 10

Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

Questions:

- (a) Please estimate the probability (%) that an NPS 6 pipe will be required for the full 39 km proposed by Enbridge in: (i) 2030, (ii) 2040, and (iii) 2050? Please provide a specific percentage with any caveats as necessary.
- (b) Please estimate the probability (%) that an NPS 4 would be sufficient for the at least 10 km of the 39 km planned by Enbridge in: (i) 2030, (ii) 2040, and (iii) 2050. Please provide a specific percentage with any caveats as necessary.
- (c) Is Enbridge willing to bear any of the risk that the proposed infrastructure will be underutilized or stranded in: (i) 2030, (ii) 2040, or (iii) 2050?

Interrogatory 11

Reference: Reference: Exhibit B, Tab 2, Schedule 2, Page 13; Exhibit B, Tab 2, Schedule 4, Page 1; Exhibit B, Tab 2, Schedule 5, Page 1

Questions:

- (a) Please confirm the percentage of Ontario's annual greenhouse gas emissions that are attributable to natural gas combustion.
- (b) What is the value of Enbridge's physical regulated assets in Ontario minus depreciation? What percentage change will this project make to that value?
- (c) What is the current rate base for all of Enbridge's regulated assets in Ontario? What percentage change will this project make to the total rate base?

Abandonment

Interrogatory 12

Reference: Exhibit F, Tab 2, Schedule 1

Enbridge estimates \$27 million in abandonment costs.

Questions:

- (a) How much of the pipeline will be abandoned in place versus removed?
- (b) Please compare the proposed \$27 million in abandonment costs with abandonment costs in a number of comparable projects. Please include comparative information such as cost per km.
- (c) Is the \$27 million in abandonment costs more or less than the amount collected through the depreciation expense for future abandonment costs thus far in relation to the London Lines? Please explain.
- (d) Enbridge has previously stated “[f]uture abandonment costs charged to earnings through the depreciation expense are recorded as a liability on the Enbridge Gas financial statements and are collected from all ratepayers.”⁴ How much money has Enbridge collected from ratepayers for abandonment costs in relation to the London Lines? If these funds are collected on a broader basis or over a wider geographical area, please provide the broader financial figures and attribute a portion to the London Lines on a best-efforts basis. Please explain the answer.
- (e) What amount has Enbridge collected from ratepayers through the depreciation expense for all future abandonment costs in Ontario? How many km of pipeline does Enbridge have in service in Ontario that are NPS 4 or larger? What is the size of this current project as an approximate percentage of Enbridge’s pipeline system in Ontario?

Interrogatory 13

Reference: Exhibit B, Tab 2, Schedule 5, Page 1

Question:

- (a) Please provide the underlying calculations used to arrive at the cost figures for the proposed project and alternative 5 in the Summary of Alternatives, including the DCF tables.

⁴ EB-2019-0188, Exhibit I.ED.4.