

ENBRIDGE GAS DISTRIBUTION INC. (ENBRIDGE)
RESPONSES TO INTERROGATORIES OF PARKLAND

INTERROGATORY #1

Reference: Enbridge EB-2016-0004 Evidence, pg. 7, para. 23

Enbridge states that the Board should consider broader societal (Stage 2) benefits in the context of community expansion projects.

- a. Please confirm that if the Board should consider broader societal benefits of community expansion projects, it should also consider any societal costs of natural gas expansion (for example, job losses for existing fuel providers). If not, explain why not.

RESPONSE

- a. Enbridge confirms that the Board should consider broader societal benefits of community expansion projects. With respect to the determination of Stage 2 benefits under EBO 134, insofar as the Company is aware this analysis takes into account both the costs and the benefits associated with a gas distribution system expansion project. The Stage 2 test includes the benefit of the energy cost saving to the community to be served. EBO 134 also includes a Stage 3 benefits analysis that considers the broader societal costs and benefits of a project which would include the types of cost and benefit referred to in this question.

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INTERROGATORY #2

Reference: Enbridge EB-2016-0004 Evidence, pg. 7, para. 25

Enbridge states that extending natural gas service to unserved communities will benefit all ratepayers. Enbridge also states that the incremental revenue generated by future customer attachments on expansion projects will benefit all of Enbridge's customers.

- a. Fully describe how existing natural gas ratepayers will benefit from extending natural gas service to unserved communities. In this discussion, please distinguish between benefits that may be experienced by all Ontarians versus benefits that will be experienced solely by existing natural gas ratepayers.
- b. Explain how existing customers will benefit from the revenue associated with expansion projects if those projects have a PI of less than 1.0.

RESPONSE

- a. The Board's EBO 134 decision provided for use of two further economic tests beyond consideration of discounted cash flows associated with a system expansion project. The Stage 2 analysis generally takes into account the energy cost savings that potential customers could achieve relative to their existing fuel usage. The Stage 3 analysis adds quantifiable and non-quantifiable public interest benefits associated with a project. Given that Stage 3 benefits address the broader societal benefits of a gas distribution system expansion project they would typically be felt beyond the confines of a single gas distributor's service area. Since all of premises served by Enbridge are located in Ontario the Company's customers benefit from Stage 3 benefits substantially.
- b. The discounted cash flow analysis called for in EBO 188 is limited in that it does not consider that when customers are added to the Company's gas distribution system that the fixed costs of operating the system are spread over a broader customer base, or that additional customers typically continue to be added to these portions of the system after the ten year customer addition forecast horizon applied in the feasibility test has elapsed. The EBO 188 tests also do not recognize that at some future point in time the revenues associated with a project

will exceed the revenue requirement associated with a project. Further, the EBO 188 tests do not factor in the societal benefits captured in the EBO 134 Stage 2 and 3 analyses noted in part (a) of the Company's response to this interrogatory.

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INTERROGATORY #3

Reference: Enbridge EB-2016-0004 Evidence, pg. 15, Table 1

Enbridge provides an estimate of natural gas conversion costs and cost savings relative to incumbent fuels, including propane.

- a. How did Enbridge estimate natural gas conversion costs? Discuss all assumptions used and the basis for those assumptions.
- b. How did Enbridge estimate the cost savings of natural gas relative to propane? Discuss all assumptions used and the basis for those assumptions.

RESPONSE

Please refer to interrogatory responses to CCC Interrogatory #8 at Exhibit S3.EGDI.CCC.8 and OGA Interrogatory #6 at Exhibit S3.EGDI.OGA.6.

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INTERROGATORY #4

Reference: Enbridge EB-2016-0004 Evidence, pg. 21, para. 62

Enbridge proposes that its System Expansion Surcharge should be paid by all customers in the area served by the community expansion project for up to 40 years.

- a. If Enbridge's proposal is accepted by the Board, who would bear the risk of customers converting away from natural gas before 40 years?

RESPONSE

- a. As a regulated energy distribution utility operating in Ontario the central principle underlying the determination of Enbridge's rates is cost of service. Given this principle, provided that the Board agreed that the Company's costs had been prudently incurred such costs would be recoverable from all of the Company's customers even if some customers may from time to time leave the system.

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INTERROGATORY #5

Reference: Enbridge EB-2016-0004 Evidence, pg. 23, para. 70

Enbridge states that community expansion projects should not be viewed individually from an economic perspective.

- a. Confirm that Enbridge is proposing that there should be no PI threshold for individual community expansion projects.

RESPONSE

- a. The Enbridge proposal contemplates that a portfolio of community expansion projects be established and that the PI of this portfolio would be managed to a level of 0.5 or greater. The PI values of the individual projects contained in this portfolio will be calculated and tracked as part of the process of managing the portfolio as a whole. Implicit in this portfolio approach is that there is no PI threshold requirements applicable to an individual community expansion project.

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INTERROGATORY #6

Reference: Enbridge EB-2016-0004 Evidence, pg. 25, para. 79

Enbridge states that the calculation of Project PIs in its evidence does not include reinforcement costs.

- a. Confirm that Enbridge's position is that reinforcement costs should not be included in the costs used to evaluate the economic feasibility of an expansion project, even in cases where the reinforcement costs are directly attributable to the expansion project. If not confirmed, please explain when reinforcement costs should be included in the evaluation of a project's economic feasibility.

RESPONSE

Please see the Company's responses to FRPO Interrogatories # 9 and 10 at Exhibit S3.EGDI.FRPO.9 and 10.

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INTERROGATORY #7

Reference: Enbridge EB-2016-0004 Evidence, pg. 26, Table 4

Enbridge quantifies the number of potential customers and forecast customers for each possible community expansion project.

- a. What assumptions were used to forecast the number of customers for each expansion project relative to the number of potential customers in each community? Please explain the basis for each assumption.

RESPONSE

Please see Enbridge response to Energy Probe #7 at Exhibit S3.EGCI.EP.7.

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INTERROGATORY #8

Reference: Enbridge EB-2016-0004 Evidence, pg. 28, para. 84

Enbridge discusses how it evaluated the LNG service option for each potential project.

- a. What are Enbridge's assumptions regarding the operating costs of LNG service relative to transmission main (pipeline) service? Please discuss the basis for all assumptions used in this analysis.
- b. What assumptions did Enbridge use to estimate LNG supply costs relative to natural gas supply costs? Please explain the basis for these assumptions.
- c. Does Enbridge believe the conversion costs and savings costs for natural gas that are presented in Table 1 of Enbridge's evidence apply equally for LNG service and transmission main service? If so, please explain why. If not, provide a revised Table 1 showing both LNG service and transmission main service.

RESPONSE

- a. The total annual operating costs for LNG service have fixed and variable components. Fixed operating costs include such things as labour for inspections and maintenance activities, spare parts and materials, etc. Variable operating costs are primarily driven by LNG trucking costs, electricity consumption and electricity prices. Total annual operating costs for LNG service are greater than those for pipeline service. Publically available information suggests that typical total annual operating costs for LNG service range between 2% and 5% of the LNG infrastructure capital cost; Enbridge discussed the matter with companies and consultants offering LNG related services in Canada and the United States and has concluded that total annual operating costs for LNG service in Ontario are reasonably expected to fall within this range.
- b. LNG supply costs are a sum of commodity, transmission, liquefaction and transportation costs. Enbridge assumed that the initial supply of LNG would come from Gaz Metro's LNG facility in Montreal. Information on Gaz Metro's liquefaction charge is publicly available. Enbridge added to this charge the cost of the natural gas commodity delivered to Montreal inclusive of tolls, etc. Enbridge discussed transportation costs with trucking logistics providers. Total LNG supply costs were estimated by summing these costs.

- c. Enbridge does not have any reason to believe the conversion costs and savings costs for natural gas that are presented in Table 1 of Enbridge's evidence would be different for customers served by way of LNG service, or transmission main service.

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INTERROGATORY #9

Reference: Enbridge EB-2016-0004 Evidence, pg. 29, Table 6

Enbridge quantifies the amount of subsidy required for transmission main service and LNG service for each community expansion project.

- a. Explain fully how the subsidies in Columns 7, 10, 11 and 12 of Table 6 were calculated.

RESPONSE

Please refer to Enbridge response to BOMA 44 at Exhibit S3.EDGI.BOMA.44 part (a).

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INTERROGATORY #10

Reference: Enbridge EB-2016-0004 Evidence, pg. 32, Table 9

Enbridge quantifies the projected ratepayer impact associated with each possible community expansion project.

- a. Confirm that the number of new customers in Table 9 is the same as the number of forecast customers in Table 4 of Enbridge's evidence. If not confirmed, explain how the number of new customers in Table 9 was calculated, including all underlying assumptions.
- b. What would the ratepayer impact be if the actual number of customers that converted to natural gas for each expansion project were (i) 75% of those forecast by Enbridge; (ii) 50% of those forecast by Enbridge; and, (iii) 25% of those forecast by Enbridge.

RESPONSE

- a) Confirmed.
- b) Please see the table below, which provides the ratepayer impact assuming various conversion rates as requested.

Bill impact - Sensitivity Analysis	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>
75% of those forecast by Enbridge	\$0.55	\$0.82	\$1.39	\$1.19	\$0.87	\$0.50	\$0.75	\$1.05	\$4.47	(\$0.13)
50% of those forecast by Enbridge	\$0.59	\$0.89	\$1.51	\$1.32	\$1.02	\$0.59	\$0.86	\$1.28	\$5.19	(\$0.10)
25% of those forecast by Enbridge	\$0.64	\$0.96	\$1.61	\$1.44	\$1.17	\$0.68	\$0.98	\$1.51	\$5.93	(\$0.07)

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INTERROGATORY #11

Reference: Enbridge EB-2016-0004 Evidence, pg. 33, Table 10

Enbridge quantifies the societal benefits of all of its possible community expansion projects.

- a. Confirm that the Energy Cost Savings in Table 10 was calculated based on the savings costs in Table 1 of Enbridge's evidence multiplied by the number of forecast customers in Table 4 of Enbridge's evidence. If not confirmed, please explain how the Energy Cost Savings in Table 10 was calculated.

RESPONSE

Yes, Enbridge has used the energy savings noted in Table 1 as an input to Stage 2 benefit calculations in Table 10. These calculations are based on year over year savings and calculated using the most recent price projections for different fuels and their corresponding market share. Table 10 provides Energy Cost Savings over a period of 40 years discounted at social discount rate of 4%. Please see Enbridge's response to OGA Interrogatory #14 at Exhibit S3.OGA.14 for details of these calculations.