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August 7, 2015

VIA RESS, EMAIL and COURIER

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2700
Toronto, ON M4P 1E4

Dear Ms. Walli,

**Re: Enbridge Gas Distribution Inc. (the “Company” or “Enbridge”)
Ontario Energy Board (the “Board”) File: EB-2015-0049
Multi-Year Demand Side Management Plan (2015 to 2020)
Interrogatories on GEC Evidence**

Enclosed please find the interrogatories of Enbridge on the evidence prepared by Mr. Chernick (Resource Insight Inc.) and filed by GEC in the above noted proceeding.

The submission has been filed through the Board’s Regulatory Electronic Submission System (“RESS”) and will be available on the Company’s website under the “Other Regulatory Proceedings” tab at www.enbridgegas.com/ratecase.

If you require further information, please contact the undersigned.

Yours truly,

(Original Signed)

Bonnie Jean Adams
Regulatory Coordinator

cc: Mr. Dennis O’Leary, Aird &Berlis
EB-2015-0049 Intervenors

ENBRIDGE GAS DISTRIBUTION INC.
INTERROGATORIES FOR GREEN ENERGY COALITION

Section 3 (a) Demand-Reduction-Induced Price Effects

1. Reference: L.GEC.2, page 9

Preamble:

Table 1, Estimates of Gas Price Suppression from Reduced Usage, multiple studies using EIA National Energy Modeling System

Request:

Please explain how the fluctuations in \$US/Dth per quad can be interpreted. In some instances, the impacts from the same studies have different effects.

2. Reference: L.GEC.2, Table 2, page 9

Preamble:

“Table 2 lists the AEO cases that change natural gas demand without affecting the gas supply curve. Table 2 also provides EIA’s projection of the changes in gas consumption ...and Henry Hub price from the AEO reference case in 2020.”

Request:

- a) Please explain or interpret the results. Why do the same cases in both years have less of an impact in 2014 so that it is “roughly a quarter of the slope in the 2012 sensitivities”?
- b) Please explain how low economic growth, “high” and “best” demand technologies would serve to increase prices using the AEO 2014 cases relative to AEO 2012?
- c) What are the implications of decay in price-reduction values over time? How would evidence of decay affect the conclusions of the testimony?
- d) What are the implications of accumulating effects? How would evidence of accumulation affect conclusions derived?

3. Reference: L.GEC.2, page 12 (Fig 1), page 13 (Fig 2)

Request:

- a) Please confirm that the data used to produce the observations in the above referenced figures used forecast data rather than historical actual data.
- b) Please explain in detail how the observations used in the regression analysis were produced from EIA's AEO reports.

4. Reference: L.GEC.2 page 13

Preamble:

In the above reference, Mr. Chernick discusses how changes to natural gas demand will impact Henry Hub prices. The Company would like to better understand the relevance of this information to this application.

Request:

- a) Please identify the Canadian demand centres included in Figure 1 and Figure 2.
- b) Did Mr. Chernick conduct a similar analysis for Canadian demand centres? If not why not?
- c) Did Mr. Chernick consider any other variables, for example economic or demographic variables in the regression analysis in Figure 1 and Figure 2? If not why not? If he did please provide the regression output and an explanation for the results.
- d) Did Mr. Chernick consider fitting different curves in Figure 1 and 2? If not why not? If he did please provide the regression output and an explanation for the results.
- e) The slope coefficient differs significantly between the regression analysis in Figure 2 and Figure 3. Please explain why, between the two time periods, the slope coefficient declined by a factor of approximately 76%.
- f) Please confirm that EGD does not procure any of its gas supply from Henry Hub.

5. Reference: L.GEC.2, pages 13 and 14

Preamble:

In the above reference, Mr. Chernick discusses how natural gas supply costs will increase as natural gas reserves are depleted. The Company would like to better understand the impact of natural gas reserves on natural gas supply costs.

Request:

- a) Please discuss the trend of forecasted natural gas reserves for North America from 2006 to current date with a focus on proximate supplies to Ontario such as the Marcellus and Utica supply basins.
- b) Please discuss the trend of natural gas prices at Dawn and AECO-C from 2006 to current date.
- c) Please provide a discussion of the price trends that have been experienced in the Marcellus and Utica shale basins with reference to relevant pricing points within each respective basin.

6. Reference: L.GEC.2, page 14

Request:

- a) Please explain why the \$0.00027/m³ decrease in natural gas price per 10⁹m³ saved figure is multiplied by the total annual gas use of Ontario.
- b) Please confirm that the 0.76 cents in reduced gas bills per m³ conserved in Ontario is based on an analysis of Henry Hub prices and total U.S. consumption.
- c) Please explain the differences and similarities between Henry Hub price and the Dawn Hub price, and the respective markets they serve.
- d) Please compare total Ontario gas consumption to total U.S. gas consumption, displaying annual m³ consumed for each and expressing Ontario gas consumption as a percentage of total U.S. gas consumption.
- e) Please explain if the impact of changes in Ontario demand on Dawn Hub prices would be similar to the impact of changes in total U.S. demand on Henry Hub prices.

7. Reference: L.GEC.2 pages 16 and 17

Preamble:

In the above reference, Mr. Chernick discusses how transportation costs will decrease as natural gas demand decreases. The Company would like to better understand the impact of decreased natural gas demand on transportation costs.

Request:

- a) Please confirm that virtually all of the Company's supply requirements are delivered to its respective franchise areas through transportation contracts with TransCanada Pipelines Limited and Union Gas Limited.
- b) Please discuss the directional impact on transportation tolls that a reduction in demand would have assuming that the costs to operate the transportation systems on which EGD contracts remain relatively constant.
- c) Please provide the TransCanada Pipelines Limited transportation tolls from Empress to the Enbridge CDA, Empress to the Enbridge EDA, Union Dawn to the Enbridge CDA and Union Dawn to the Enbridge EDA from 2000 to current.
- d) Please comment on the key factors that influenced changes to the transportation tolls over time provided in response to part c) of this question.

8. Reference: L.GEC.2, page 17

Request:

- (a) Please provide details on the calculation of a 1 cent reduction in Ontario gas bills for each m³ conserved. Please provide a step-by-step explanation on how this was calculated.

Section 3 (b) Carbon Pricing

9. Reference: L.GEC.2, page 27

Preamble:

In the above reference, Mr. Chernick provides data in Table 5 that includes the avoided commodity costs in 2016. The Company would like to better understand how some of the information in Table 5 was derived.

Request:

Please provide the specific calculations that were used to derive the second line in the table which includes the Water Heating, Space Heating, and Water and Space Heating avoided commodity costs in 2016 using the 2015 avoided cost estimate.

Section 3 (d) Avoided Distribution Costs

10. Reference: L.GEC.2, general

Preamble:

The evidence suggests that replacement, relocation, and sales costs should be included in the Avoided Gas Costs calculation.

Request:

- (a) Please comment on whether this suggestion includes all replacement, relocation, and sales costs or a portion thereof. If it is the latter, please explain.

11. Reference: L.GEC.2, general

Preamble:

Mr. Chernick's evidence references that Enbridge omitted reinforcement costs.

Request:

- (a) Please confirm that Enbridge identified and acknowledged the inadvertent errors and committed to providing a fully revised reinforcement list and associated costs in the Q4 Input Assumption update of Avoided Gas Costs. (See response to GEC Interrogatory #56(c) at I.T9.EGDI.GEC.56 and Undertaking JT1.28.)

- (b) Please confirm that Enbridge stated that the overall impact of the inadvertent errors (resulting in an approximate 27% increase to the reinforcement costs) results in a marginal increase of less than 1% in Water Heating and Industrial load profiles, and an increase of less than 2% in the Space Heating and Space and Water Heating load profiles on the Avoided Gas Costs over a 30 year period. (See response to Undertaking JT1.28.)

12. Reference: L.GEC.2, page 35, footnote 30

Preamble:

“Lower load growth in the GTA would have avoided the need for Segment B.” This subject was discussed during the discovery process of the GTA Project (EB-2012-0451).

Request:

- (a) Please confirm that Enbridge stated that only the portion of Segment B from Sheppard Avenue East to McNicoll Avenue is associated with load growth as described in EB-2012-0451 and the response to EB-2015-0049 Undertaking JT1.17.
- (b) Please confirm that the north-south portion of Segment B, referred to in Mr. Chernick’s evidence as “B2”, is 7.6 km (see EB-2012-0451, Exhibit B, Tab 1, Schedule 1, page 3, paragraph 9) and that the distance from Sheppard Avenue East to McNicoll Avenue (paralleling Pharmacy Avenue) is approximately 3.3 km.
- (c) Please confirm that Enbridge stated that other portions of Segment B are required for other operational reliability purposes as described in EB-2012-0451. Please see EB-2012-0451 Transcript Volume 5, page 76 lines 27 to page 78 line 22.

13. Reference: L.GEC.2, page 36

Request:

- (a) Please provide the original source and cost per segment used calculate the costs in lines 10, 12, and 13.
- (b) Please provide the derivation of the costs in lines 10, 12, and 13.

14. Reference: L.GEC.2, page 38

Preamble:

The Navigant Report summarizes the methodology in Section 3.1, Overview of Methodology, and the details of the calculations used are provided in Section 3.4, Distribution Avoided Cost Calculation. Specifically, page 21 states “*The benefit associated with the deferred reinforcement cost is shown by the difference between the “No DSM” (i.e., the black line) and the “With DSM” (i.e., the green line) scenarios. The value is determined by calculating the annual revenue requirement to recover the costs associated with the reinforcement using Enbridge-specific assumptions.*” This is further illustrated in Figure 8 and Figure 9 of the Navigant Report, and a summary of the annual cash flows for 2015 to 2023 is provided in Appendix A.

Mr. Chernick states on page 38 “Navigant uses a nominal 5.9% carrying charge for the distribution investments, which it does not document”.

Request:

On what basis does Mr. Chernick conclude that Navigant uses a “nominal carrying charge”?

15. Reference: L.GEC.1, page 41

Preamble:

In Mr. Neme’s evidence, filed at L.GEC.1, he states that “... DSM cannot address every type of infrastructure need. It only has potential value as an alternative to infrastructure projects that are being driven, at least in part, by load growth. Even then it will not always be applicable...”

Request:

- (a) Please comment on whether Mr. Chernick agrees with Mr. Neme’s statement. If not, please explain.

16. Reference: L.GEC.2, page 41

Request:

- (a) Please describe the rationale used to arrive at the recommendation to apply a 20% reduction in load growth for Segment B2.
- (b) Please provide all calculations and workpapers/spreadsheets used to derive the recommendation to apply a 20% reduction in load growth.

17. Reference: L.GEC.2, page 41, table 8

Request:

- (a) Please provide the derivation of the \$17.4M quoted for the “2010-2012 revisions”.
- (b) Please provide the derivation of the \$85M quoted for “Segment B2”.

18. Reference: L.GEC.2, pages 41-42, table 8

Request:

- (a) Please describe the rationale used to arrive at the recommendation to apply a 10% reduction in load growth for Segment B1.
- (b) Please provide all calculations and workpapers/spreadsheets used to derive the recommendation to apply a 10% reduction in load growth.

Section 3 (f) Avoided Supply

19. Reference: L.GEC.2 page 55

Preamble:

Starting on line 8 of the above reference, Mr. Chernick discusses the importance of a daily gas price input in SENDOUT and how daily gas prices tends to vary with load. The Company would like to better understand other considerations that impact daily gas prices.

Request:

- a) Please confirm that most natural gas distribution companies, including the Company, contract for storage capacity to facilitate daily and seasonal load requirements.
- b) Would the use of storage capacity to facilitate daily and seasonal load requirements have an impact on daily gas prices? If so, please explain the impact.