Kai Millyard Associates

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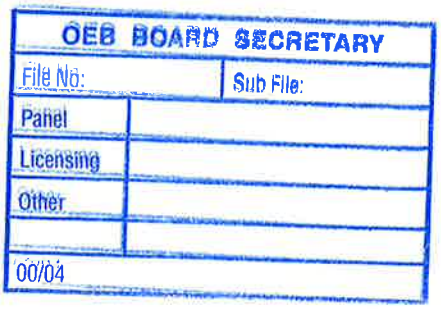

June 2, 2015

Ms Kirsten Walli
Board Secretary
Ontario Energy Board
27th floor
2300 Yonge Street
PO Box 2319
Toronto, ON
M4P 1E4

RE: EB-2015-0049 INTERROGATORIES

Dear Ms Walli,

I enclose 2 copies of final interrogatories by GEC to Enbridge on its 2015-2020 DSM Plan evidence. These have also been sent to the utility, uploaded on the RESS, and PDF versions are being emailed to you.

Sincerely,

(Mr.) Kai Millyard
Case Manager for the
Green Energy Coalition

encl.
Cc: Andrew Mandyam
Intervenors

Green Energy Coalition

Discovery on Avoided Cost for EGDI

43. Exh. B/T2/S3, pp. 3-8 & B/T2/S5 Avoided Costs:
    a. Please provide a breakdown of the annual unit avoided costs by type (e.g., commodity, base capacity, storage, peaking capacity, T&D, CO_2 costs).
    b. Please provide all reports, analyses and workpapers supporting the avoided costs.
    c. Please provide all source documents supporting the avoided costs.
    d. If EGDI assumes that any avoided gas or other avoided costs originate in the US, priced in US dollars, please provide the Company's forecast of the foreign exchange rate from US to Canadian dollars.
    e. Please explain how EGDI differentiates avoided gas costs between heating measures, baseload industrial measures, and any other load shapes for which EGDI developed avoided costs.
44. Exh. B/T2/S3
    a. Please provide all forecasts of gas commodity prices at hubs relevant to the pricing of EGDI's marginal gas sources produced since January 2014 and in the possession of EGDI.
    b. For each pricing point for which EGDI has access to futures or forward prices, please provide the most recent futures or forward prices for natural gas available to EGDI for each exchange or broker for which EGDI has such data.
    c. Please provide the most recent futures or forward prices for natural gas basis from major trading points to trading hubs relevant to EGDI, for each exchange or broker for which EGDI has such futures or forward prices.
45. Exh. B/T2/S5
    a. Please provide all available information regarding the Company's "undertaking of a complete update of the avoided natural gas costs, inclusive of the costs for transportation and storage in addition to commodity costs," including internal memoranda and instructions to consultants.
    b. Please state when the Company initiated its update of avoided costs.
    c. Please explain how the Company expects the updated avoided costs to differ from those used in this Application.
    d. Please explain why the avoided costs will not be available until Q4, 2015.
    e. Please explain when the Company expects to start using the new avoided costs for screening DSM and development of DSM portfolios.
46. Exh. B/T2/S5
    a. Please provide all reports, analyses and workpapers supporting the avoided electric costs.
    b. Please explain how the estimate of avoided electric costs reflect generation capacity costs, required reserves, line losses, the costs of renewable energy, CO_2 costs, and avoided T&D.
    c. Please explain why EGDI forecasts electric avoided costs to escalate at the CPI.

d. Please provide any analysis EGDI has conducted regarding the relationship among the market prices of electricity, the CPI, gas prices, and other cost drivers.

47. Exh. C/T1/S1, Table B-1
    a. For each load shape, please provide a breakdown of the annual unit avoided costs by type (e.g., commodity, base capacity, storage, peaking capacity, T&D, CO_2 costs).
    b. Please provide all reports, analyses and workpapers supporting the avoided gas costs.
    c. Please provide all source documents supporting the avoided costs.
    d. If EGDI assumes that any avoided gas or other avoided costs originate in the US, priced in US dollars, please provide the Company's forecast of the foreign exchange rate from US to Canadian dollars.
    e. Please provide the all reports, analyses and workpapers supporting the avoided electric costs.
    f. Please provide a breakdown of the avoided electric costs by component (e.g., market energy, capacity, losses, reserve margin, T&D, and CO_2 costs).
48. Exh. C/T1/S1, Table B-3
    a. Please provide the derivation of the 4.8% line-loss factor.
    b. Please explain whether this value is intended to be an on-peak energy, off-peak energy, or peak load loss factor.
    c. Please explain whether this value is intended to be a marginal loss or average loss factor, and explain why EGDI chose to use the type of loss it used.
49. Exh. C/T1/S4
    a. Please provide all data and instructions provided to Navigant by EGDI with regard to the development of this document.
    b. Please provide all memoranda, draft reports, presentations, and other materials provided to EGDI by Navigant regarding the development of this document and its results.
50. Exh. C/T1/S4, Table 1
    a. Please provide all workpapers supporting the derivation of the avoided distribution costs, by load shape, in the form of Excel spreadsheets with working formulae.
51. Exh. C/T1/S4, Table 5
    a. Please provide the avoided distribution costs estimated in EBRO 487, EBRO 492, and EBRO 497.
    b. Please provide any available documentation of the derivation of the avoided distribution costs estimated in EBRO 487, EBRO 492, and EBRO 497.
52. Exh. C/T1/S4, p. 10 of 35
    a. Section 2.1.1 describes the development of Avoided Transmission Costs, but this document does not report any avoided transmission costs. Please provide EGDI's load-related transmission expenditures for each year 2010–2014 and forecast to 2019.
    b. Please list EGDI's load-related transmission projects for each year 2010–2014 and forecast to 2019.

c. Please explain whether the GTA reinforcement would be considered a transmission project or a distribution project.

53. Exh. C/T1/S4, p. 19 of 35
    a. Please provide the sales mains expenditures from 2010 to 2014 and forecast sales mains expenditures from 2014 to 2019.
    b. For each year from 2010 to 2014, please provide the meters of sales main added, broken down by diameter of main.
    c. Please provide the average cost per meter for each diameter of main typically installed on the EGDI system.
54. Exh. C/T1/S4, p. 19 of 35
    a. Please provide the relocation and replacement mains expenditures from 2010 to 2014 and forecast relocation and replacement mains expenditures from 2014 to 2019.
    b. For each year from 2010 to 2014, please provide the meters of relocation and replacement mains added, broken down by diameter of main.
55. Exh. C/T1/S4, pp. 19–20
    a. Please provide each Capital Budget developed by EGDI since 2005, in at least the level of detail provide in EB-2012-0459 Exhibit B2 Tab 1 Schedule 1 Table 2.
56. Exh. C/T1/S4, Figure 3
    a. Please provide the EGDI planning documents from which the forecast reinforcement expenditures from 2014 to 2019 were taken.
    b. Please explain whether costs in Figure 3 are listed in the year the plant entered service or the date of the investment, for multi-year projects.
    c. Please identify the projects included in each year of this figure.
    d. Please explain whether the reinforcement costs include the Ottawa Reinforcement and the GTA Reinforcement, and if not, why.
    e. Please provide EGDI's actual annual expenditures for the Ottawa Reinforcement and the GTA Reinforcement.
57. Exh. C/T1/S4, Figure 3
    a. Please explain whether the following projects listed in EB-2012-0451/EB-2012-0433/EB-2013-0074 Exhibit I.A1.EGD.GEC.42 are included in Figure 3, and if not, why:
        i. 2017 installation of approximately 3.5 km of NPS 16 HP from Bayview Avenue station to the existing NPS 24 near the intersection of Avenue Road & MacPherson Ave. This reinforcement will enhance system flexibility during planned and emergency activities. The estimated cost associated with this reinforcement is $21M.
        ii. 2018 installation of approximately 4.2 km of NPS 12 HP on Bathurst St. from Steeles Avenue to Sheppard Avenue and 3.5 km of NPS 12 HP on Sheppard Avenue to Bayview Avenue and a new Station. This reinforcement will improve pressures in the local area and provide sufficient capacity for future customer growth in this area. The estimated cost associated with this reinforcement is approximately $10M.

iii. 2018 installation of approximately 4.0 km of NPS 12 HP from Roselawn Avenue and Oriole Parkway to Avenue Road & Roxborough Street. This reinforcement will improve pressures in the local area and provide sufficient capacity for future customer growth in this area. The estimated cost associated with this reinforcement is $6.4M.

iv. 2019 installation of approximately 4.5 km of NPS 12 HP on Spadina Road from MacPherson Avenue to Lakeshore Boulevard. This reinforcement will improve pressures in the local area and provide sufficient capacity for future customer growth in this area and will enhance system flexibility during planned and emergency activities. The estimated cost associated with this reinforcement is approximately $8M.

v. 2019 installation of approximately 2.5 km of NPS 16 HP from Victoria Park on Dawes to Woodbine & Strathmore. This reinforcement will provide a Single Source HP System with a back feed. This will increase security of supply in the south Scarborough area and provides an alternate supply path for customers to the east of the Don River. The estimated cost of this reinforcement is $5M.

vi. 2020 installation of approximately 250m on NPS 6 XHP pipeline on Mississauga road in Brampton. This reinforcement will improve pressures in the local area and provide sufficient capacity for future customer growth in this area. The estimated cost associated with this reinforcement is approximately $0.3M.

58. Exh. C/T1/S4, p. 26 of 35
    a. Figure 9 shows the demand-day savings occurring in 2013–2030, while the text says that the load reductions are assumed to occur in 2015–2032. Please reconcile this discrepancy.
59. Exh. C/T1/S4, p. 27 of 35
    a. Please provide all workpapers supporting the derivation of the peak day demand distribution avoided cost in $/10^{3}m^3 annual peak day demand.
    b. Please explain how the computation accounts for the O&M costs related to the deferred projects.
60. Is the company in possession of any studies or information concerning the scale of Demand Reduction Induced Price Effects (DRIPE) in Ontario? If so please provide.