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May 2, 2018

Delivered by Email, RESS & Courier

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Enbridge Gas Distribution Inc.
Enbridge RNG Enabling and Geothermal Energy Program - EB-2017-0319
Interrogatories from The Association of Power Producers of Ontario**

Please find attached the interrogatories of The Association of Power Producers of Ontario to Enbridge Gas Distribution Inc.

Yours very truly,

BORDEN LADNER GERVAIS LLP

Per:

Original signed by John A.D. Vellone

John A.D. Vellone

cc: Applicant and Intervenors of record in EB-2017-0319

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c. 15, Sched. B, as amended;

AND IN THE MATTER OF an application by Enbridge Gas
Distribution Inc. for an order or orders related to its Renewable
Natural Gas Enabling Program and Geothermal Energy
Service Program;

AND IN THE MATTER OF an application by Enbridge Gas
Distribution Inc. for an order or orders amending or varying
the rates charged to customers for the sale, distribution,
transmission, and storage of gas commencing as of January
1, 2018

EB-2017-0319

Interrogatories

To

Enbridge Gas Distribution Inc.

From

The Association of Power Producers of Ontario (APPRO)

May 2, 2018

1-APPrO-1

Reference: Exhibit B1, Tab 1, Schedule 1

Preamble: Enbridge proposes to introduce certain rate regulated services and rate base certain assets. Enbridge further proposes that the ratepayers, bear at least some of the financial risks of the success of the project as the annual sufficiency/deficiency of these programs is proposed to be included in the Cap & Trade Compliance Obligation Variance Accounts.

Question:

- (a) In the event that the Board does not approve Enbridge's request to regulate the RNG Enabling Program and the Geothermal Energy Service Program, will Enbridge or a non-regulated affiliate, seek to invest in these potential opportunities on a non-rate regulated basis? If the answer is 'no', please fully explain why Enbridge or the customer would not want to take the risk of offering these services on a non-regulated basis.

1-APPrO-2

Reference: Exhibit B1, Tab 1, Schedule 1

“With respect to the advancement of RNG production in Ontario, Enbridge sees its role as that of a facilitator that can assist RNG producers in the process of upgrading raw untreated biogas into pipeline quality RNG and the injection and transportation of this gas to market. Over the course of the past eighteen months, the Company has conducted discussions with several municipalities and other potential RNG producers with respect to the services Enbridge could provide to accelerate the development of RNG production capacity in its service area. Enbridge believes this will support the growth of RNG production which will facilitate lower cost RNG to supply market demand. This dialogue has led the Company to develop the RNG enabling program described in this submission which is based on utility investment in RNG upgrading and injection equipment.”

Questions:

- (a) Is Enbridge proposing to have a monopoly franchise over the upgrading and injection of RNG into its natural gas system?
- (b) Describe the competitive environment in Ontario related to either (i) upgrading RNG; or (ii) injecting RNG into the natural gas system; or (iii) both? If there are other companies that are currently offering any of these services please identify those companies and provide information on their service offering. If Enbridge reasonably anticipates that a competitive market will develop in this area, please provide an explanation of the anticipated market evolution assuming first that the Board approves Enbridge’s proposed RNG services and secondly assuming it does not approve these services.
- (c) Provide a list of any and all risks ratepayers will be exposed to if the OEB approves Enbridge’s proposal to undertake this new business activity, together with a qualitative, and if possible quantitative, description of the risk.
- (d) The converse of (c) - provide a list of any and all risks ratepayers will be exposed to if the OEB does not approve Enbridge’s proposal to undertake this new business activity, together with a qualitative, and if possible quantitative, description of the risk.
- (e) Describe any and all potential alternative sources of funding (other than ratepayers) available from the Provincial Government, the Federal Government, granting agency, or an alternative source, that could support the proposed business activity.

- (f) Describe any precedents whereby the OEB has previously permitted RNG upgrading and injection equipment to be included in ratebase of a regulated utility in Ontario. If there are none, say so.
- (g) Describe any precedents whereby a utility regulator in another jurisdiction in North America that is similar in nature and function to the OEB has previously permitted RNG upgrading and injection equipment to be included in ratebase of a regulated utility. Pay particular attention to other jurisdictions that are also members of the Western Climate Initiative (WCI). If there are none, say so.

1-APPrO-3

Reference: Exhibit B1, Tab 1, Schedule 1

“Enbridge has been working with the Ontario Geothermal Association (“OGA”), the MOECC, and the MOE to find solutions that will overcome these barriers faced by the geothermal industry which will lead to further the adoption of ground source heating and cooling systems. The solution that Enbridge has developed is a utility service that combined with financial support from the MOECC’s Greenhouse Gas Reduction Account (“GGRA”) administered by the Green Ontario (“GreenON”) Fund will make this technology cost competitive compared to more traditional building heating and cooling alternatives. Enbridge will own and maintain the geothermal loops while customers will own and maintain the heat pump system.”

Preamble: APPrO members are engaged in the generation of electricity, including through use of combined heat and power systems. Enbridge’s geothermal proposal would create a risk for existing CHP systems and technologies.

Questions:

- (a) Is Enbridge proposing to have a monopoly franchise over the ownership and maintenance of geothermal loops?
- (b) Describe the competitive environment in Ontario related to (i) installation, ownership and operation of geothermal systems as a whole; or (ii) ownership and maintenance of geothermal loops in particular?
- (c) Approximately how many geothermal systems have been installed in Ontario? To the extent possible, differentiate between individual homeowner systems, moderate systems for commercial (or farm) use, and larger systems for industrial use.
- (d) Provide a list of the risks that the individual or business that chooses to install a geothermal energy system (the “Benefiting Customers”) would be exposed to if the OEB does not approve Enbridge’s proposal to undertake this new business activity, together with a qualitative, and if possible quantitative, description of the risk.
- (e) Provide a list of any and all risks ratepayers will be exposed to if the OEB approves Enbridge’s proposal to undertake this new business activity, together with a qualitative, and if possible quantitative, description of the risk.
- (f) Provide a list of any and all risks ratepayers will be exposed to if the OEB does not approve Enbridge’s proposal to undertake this new business activity, together with a qualitative, and if possible quantitative, description of the risk.

- (g) Describe any and all potential alternative sources of funding (other than ratepayers) available from the Provincial Government, the Federal Government, granting agency, or an alternative source, that could support the proposed business activity. Why is ratepayer funding needed?
- (h) Describe any precedents whereby the OEB has previously permitted the ownership and operation of geothermal loops to be included in ratebase and operations of a regulated utility in Ontario. If there are none, say so.
- (i) Describe any precedents whereby a utility regulator in another jurisdiction in North America that is similar in nature and function to the OEB has previously permitted ownership and operation of geothermal loops to be included in ratebase and operations of a regulated utility. Pay particular attention to other jurisdictions that are also members of the Western Climate Initiative (WCI). If there are none, say so.

2-APPrO-4

Reference: i) Exhibit B Tab 1 Schedule 1

Preamble: APPrO would like to understand the economics of customers utilizing a geothermal service.

Questions:

- (a) Please explain fully why Enbridge proposes a service fee based on a “per tonne” metric compared to a rate based on the cost of owning and operating the assets.
- (b) Is heating or cooling the determining factor in sizing the geothermal loops?
- (c) Please explain how the average 4 tonnes per customer was derived.
- (d) How will a customer’s natural gas consumption change with the use of a geothermal system and how will this impact other customers’ rates.
- (e) Please describe the nature of the target residential geothermal customer.
- (f) Please provide a detailed long term economic analysis illustrating (including assumptions) of a typical target customer’s economic incentive to convert to a geothermal system.
- (g) Please provide a detailed side by side long-term economic comparison for a typical target customer illustrating two options:
 - i. A geothermal system as proposed by Enbridge,
 - ii. A customer developing and operating its own geothermal system that is installed by a qualified contractor.
- (h) At paragraph 23, Enbridge notes that *“Homeowners will be eligible for rebates of up to \$20,000 for ENERGY STAR certified ground source heat pumps”* from GreenON. Since the underground geothermal loops are an expensive component, if not the most expensive component of the overall geothermal system, please explain:
 - i. If these any of these GreenON funds or other funding opportunities are, or could be eligible to offset the geothermal loop costs either directly or as some form of contribution in aid of construction paid by the homeowner?
 - ii. Did Enbridge explicitly seek out GreenON funding or other funding opportunities to offset the construction costs of the geothermal loops? If not, please explain why.
 - iii. Please provide the typical cost of installing a residential geothermal loop detailed by cost category.

- iv. Please provide the typical cost of purchasing and installing the balance of the geothermal system that would be the customer's responsibility.

2-APPrO-5

Reference: i) Exhibit B Tab 1 Schedule 1, paragraphs 19-20

Enbridge sees its role as that of a facilitator that can assist RNG producers in the process of upgrading raw untreated biogas into pipeline quality RNG and the injection and transportation of this gas to market.

The Company proposes to offer RNG upgrading services on an optional basis. As such RNG producers will have the choice of upgrading biogas to pipeline quality themselves or having Enbridge perform this function for them.

Preamble: Enbridge indicates that it is a facilitator of the RNG service but at the same time confirms that customers have the option of arranging alternate methods of providing the service. APPrO would like to understand the implications of offering such a service.

Questions:

- (a) Please compare the service terms, including but not limited to the cost/rate, for a customer acquiring this service from Enbridge versus alternate private service providers.
- (b) Please comment on whether it is typical for private service providers to offer a rate structure similar to the rate structure proposed by Enbridge, whereby other customers help to cross subsidize the service in certain years
- (c) Please explain if the rate for this service would be fixed over the term of the contract or if it would vary based on the same Board approved rate adjustment mechanism for other Enbridge services.
- (d) Please explain how Enbridge would account for further capital investment that may be required from time to time to continue to provide service over the life of the contract.
- (e) Please explain all risks in detail, that ratepayers would be exposed to in each of the proposed RNG/GES programs (for example: in the event that the Board authorizes different rates of return on rate base in the future than what has been used in the initial fee setting will Enbridge seek a higher return on the RNG/GES rate base and if so who will pay for it?) In the event that other financial risks materialize over the life of the program that are not identified by Enbridge, will

Enbridge or the customer receiving the service bear the impact of any of these risks? Please explain.

- (f) Does Enbridge currently have any letters of intent, or conditional contracts with potential customers of any of the services that are proposed? If so please describe the nature of the commitment, number, volumes etc.

2-APPrO-6

Reference: i) Exhibit B Tab 1 Schedule 1, Appendix 5, and 7

Preamble: APPrO would like to understand the assumptions included in these appendices for the RNG Enabling Services Program.

Questions:

- (a) Please recalculate the table in each appendix noted in Reference i), and expand Line 11 to include:
 - i. Number of customers
 - ii. Revenue by customer
 - iii. Annual volumes by customer (m3)
- (b) The capital in line 1 of each appendix is a single entry and revenue in line 11 is also held constant. Is Enbridge forecasting any incremental customers after year 1. If so, how will these analyses be affected if customer growth occurs over the 20 year Program horizon?
- (c) Will the RNG rate be set up as a separate rate class, with all RNG producers paying the same rate, or will rates be individually calculated?
- (d) If additional customers are added over time, will Enbridge create segregated rate bases for each vintage of customer with segregated vintage rates or will Enbridge pool the assets and adjust the rates for all customers as new customers are added? Please explain fully.
- (e) Please explain what happens after the 20 year forecast horizon for any undepreciated rate base?
- (f) In the event that Enbridge is still providing service after year 20, how will rates be determined?

2-APPrO-7

Reference: i) Exhibit B Tab 1 Schedule 1, paragraph 60

Preamble: APPrO would like to understand the options available for RNG producers.

Questions:

- (a) In the event that a RNG customer requests that Enbridge transport RNG to other locations within its immediate contiguous distribution system or to other locations that are connected but non-contiguous (e.g. Dawn) will the RNG producer be subject to a transportation fee similar for example, to the fee that Union charges local natural gas producers to transport gas to a liquid point? Please explain fully.
- (b) In the event that the RNG requires a system reinforcement or modification (e.g. the local markets are too small to absorb the RNG production at certain times of the year and a regulator station in the system prevents physical backflow during low flow periods), will Enbridge have the right to refuse to deliver such supplies and/or charge the RNG producer the full incremental cost of the reinforcement or modification?

3-APPrO-8

Reference: i) Exhibit B Tab 1 Schedule 1,

Preamble: APPrO would like to understand the long term effects of the proposals.

Questions:

- (a) At paragraph 24 Enbridge notes that: *“The Company has used the Board’s EBO 188 Guidelines as a guide in the determination of the charges for these services. This approach aims to ensure that existing ratepayers will not subsidize these new programs”*.
- i. Does this rate structure create any risks of intergenerational rate inequity? Please explain fully.
 - ii. Please explain why Enbridge would not propose a standalone rate structure whereby the rates are developed without any deferral or variance accounts and all costs and risks are fully borne either by the users of the particular program or Enbridge?
- (b) Did Enbridge consider any economic test other than the test included on EBO 188. If so please indicate what they were and why there were rejected.