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Enbridge Gas Inc.
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VIA EMAIL and RESS

June 13, 2023

Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario, M4P 1E4

Dear Nancy Marconi:

**Re: Enbridge Gas Inc. (“Enbridge Gas” or the “Company”)
Ontario Energy Board (“OEB”) File Nos.
EB-2022-0156 – Selwyn Pipeline Project (“SPP”)
EB-2022-0248 – Mohawks of the Bay of Quinte First Nation Pipeline Project
(“MBQFNPP”)
EB-2022-0249 – Hidden Valley Pipeline Project (“HVPP”)
Response to Pollution Probe (“PP”) and Environmental Defence (“ED”)**

This letter is in relation to the above noted leave to construct applications (collectively referred to as the “Applications”) and is in response to the submissions of PP dated June 5 and June 6, 2023 and of ED dated June 7, 2023 filed pursuant to Procedural Orders No. 2 and 3, regarding supplementary interrogatories.¹ PP’s submissions consist of supplementary interrogatories and assert that responses are required to address information gaps that will impact consumer energy choices. ED’s submission asserts that supplementary interrogatories are required as Enbridge Gas’s evidence on the cost-effectiveness of high-efficiency electric cold climate air source heat pumps is inadequate, incomplete, overly complicated, and without underlying calculations. ED asserts that the need for supplementary interrogatories is relevant to the customer and revenue attachment forecasts that underlie the project economics.

Consistent with Procedural Orders No. 2 and 3,² on May 31, 2023 Enbridge Gas filed an updated response to interrogatory Exhibit I.ED.16 part e) (filed in EB-2022-0249) together with attachments that included:

- A report and spreadsheet model prepared by Guidehouse Inc. (“Guidehouse”) which provide an assessment of the performance and annual operating costs of high-efficiency electric cold climate air source heat pumps within four Ontario climates (Windsor, Toronto, Ottawa, and Thunder Bay) at three peak winter design loads (2.5 tons, 4 tons, and 5 tons). Importantly, the Company noted that it does not have information regarding the performance, annual operating costs, and/or customer lifetime cost-effectiveness of high-efficiency electric cold climate

¹ Procedural Orders No. 2 for SPP and HVPP; Procedural Order No. 3 for MBQFNPP.

² Ibid.

air source heat pumps specific to the Project area climates. The Company also noted that the Guidehouse report did not include an assessment of upfront capital costs which are required to conduct a customer lifetime cost-effectiveness analysis.

- Information collected by Enbridge Gas from HVAC contractors in May 2023 regarding low-end and high-end upfront cost estimates for conversions to both high-efficiency electric cold climate air source heat pump and natural gas furnace configurations.
- An analysis prepared by Enbridge Gas, which combined the items noted above, to provide the range of customer lifetime cost-effectiveness results when converting a home to a high-efficiency electric cold climate air source heat pump configuration compared to a natural gas furnace configuration.

Enbridge Gas's May 31, 2023 update is a clear, comprehensive response to ED's interrogatory which requested the Company's best available information regarding the cost-effectiveness of conversions to high-efficiency electric cold climate air source heat pumps when compared to natural gas furnaces for space heating. Within the updated response Enbridge Gas provided all of the applicable analysis and supporting calculations the Company has on the topic.

Enbridge Gas has reviewed PP and ED's submissions and the parties' reasons for the need for supplementary interrogatories and submits that the Company does not have additional information to provide on the topic beyond what was provided in the updated response, and that additional discovery would provide little value to the OEB and parties for the reasons that follow.

The information sought by PP regarding air conditioning analysis that is available to the Company³ and the context/basis for the HVAC contractor estimates⁴ is provided in the updated interrogatory response and the Company has no additional information to provide on those matters. Additionally, regarding PP's interrogatory related to federal electric heat pump grants, Enbridge Gas noted in its response that not all electric heat pump applications are eligible for federal grants and therefore grant amounts were not included in the potential high-end upfront cost scenario.⁵ As a result the Company has no additional information to provide on the matter. Furthermore, PP's interrogatory regarding the Demand Side Management ("DSM") Total Resource Cost-Plus ("TRC+") test is of limited value to the OEB's assessment of the Applications as the DSM TRC+ test has not been established by the OEB as an appropriate or applicable cost-effectiveness test for leave to construct applications.

³ See response to EB-2022-0249 Exhibit I.ED.16, Page 6: "Enbridge Gas does not have information regarding high-efficiency electric cold climate air source heat pumps with respect to summer space cooling."

⁴ See response to EB-2022-0249 Exhibit I.ED.16, Attachment 4, for the information request sent to HVAC contractors by Enbridge Gas, as the context/basis for the cost information returned by HVAC contractors.

⁵ See response to EB-2022-0249 Exhibit I.ED.16, Page 4: "As per the response to Exhibit I.ED.17 part a), subject to meeting program eligibility requirements certain homeowners could be eligible for up to \$5,000 in grants from the federal government for qualifying electric air source heat pumps... Since not all applications are necessarily eligible for the grant, the high-end upfront cost scenario does not include the grant amount."

Regarding ED's submission, the considerations that ED states are lacking in the Company's updated response are in fact considered or would not be of assistance as they refer to proposed, rather than approved, policies currently before the OEB in other proceedings. In addition, other aspects raised by ED are submissions and not factual inquiry. Enbridge Gas considers each of ED's submissions below. As a result, Enbridge Gas submits that the OEB should not on the basis of ED's submissions order supplementary interrogatories in respect of this matter.

- ED incorrectly asserts that the cost-effectiveness results provided in Enbridge Gas's updated response ignore the monthly customer charge applied to natural gas bills. However, the monthly customer charge is included as displayed at Attachment 6 to the response (i.e., "Monthly Customer Charge" line item).
- ED incorrectly asserts that the cost-effectiveness results provided in Enbridge Gas's updated response ignore the increases in carbon prices beyond 2023. However, the increases to the Federal carbon charge to \$170/tCO_{2e} by 2030 is included as displayed at Attachment 7 to the response (i.e., "Carbon Tax (\$/ton)" line item for each scenario). Furthermore, on Page 5 of the interrogatory response the Company explicitly states that "the carbon costs reflect the Federal carbon charge escalating to \$170/tCO_{2e} by 2030."
- ED incorrectly asserts that the cost-effectiveness results provided in Enbridge Gas's updated response ignore the 23 cents per m³ System Expansion Surcharge ("SES"). However, the SES is included as displayed at Attachment 6 to the response (i.e., "SES" line item).
- ED incorrectly asserts that the cost-effectiveness results provided in Enbridge Gas's updated response ignore federal rebates and loans for electric heat pumps. However, federal rebates are included in the analysis as described on Page 4 of the response, to the extent which the Company believes is appropriate. The Company does not have additional information regarding the extent to which consumers within the Project areas will pursue such rebates and loan opportunities and submits that additional submissions on the topic is a matter of argument rather than supplementary interrogatories.
- ED states that the cost-effectiveness results provided in Enbridge Gas's updated response do not take into account the Company's proposed rate design and extra line charge policy from its rebasing application. The proposals are currently before the OEB in another proceeding and it remains to be determined by the OEB as to whether they will be accepted. As a result, it would not be of assistance to conduct the analysis based on parameters that are not in effect and may not be approved by the OEB.
- ED states that the cost-effectiveness results provided in Enbridge Gas's updated response ignore the summer cooling cost savings related to high-efficiency electric cold climate air source heat pumps in comparison to traditional electric summer cooling equipment. This aspect was not ignored – as stated on Page 6 of the response "Enbridge Gas does not have information regarding high-efficiency electric cold climate air source heat pumps with respect to summer

space cooling”. More specifically, the inclusion of electric summer cooling to the cost-effectiveness analysis is complex as it would not only require a technical assessment of the performance efficiencies of electric summer cooling equipment types but also an assessment of the impact that electric heat pumps have on consumer energy bills for those consumers who would not opt for traditional electric summer cooling equipment with a natural gas furnace. In any event, whether consumers within the Project areas are satisfied or dissatisfied with their air conditioning arrangements is irrelevant to the natural gas attachment forecasts.

- ED states that the cost-effectiveness results provided in Enbridge Gas’s updated response rely on inaccurate and unreliable upfront cost estimates based on the following:
 - ED states that the cost estimates compare the cost of high-efficiency electric cold climate air source heat pumps to natural gas furnaces only, without inclusion of traditional electric summer cooling equipment. The Company’s response to this matter is addressed in the paragraph above.
 - ED states that the cost estimates are limited and conflict with Guidehouse’s report and the Company’s previous information. However, as described on Page 3 of the response “it is important to note that the scope of the Guidehouse report consisted of an assessment of operating costs and **did not include an assessment of upfront capital costs**”. As such, the cost estimates provided to Enbridge Gas via HVAC contractors cannot conflict with the Guidehouse report. Furthermore, the cost estimates are more up to date when compared to the Company’s previous information.
 - ED states that the survey used to request cost information from HVAC contractors is skewed because it excludes a certain home configuration scenario and references a \$7,000 cost figure. It is unclear what selective scenario and cost figure ED is referring to. Furthermore, the Company cautions against the use of selective scenarios which may not be representative of the actual conversion costs related to high-efficiency electric cold climate air source heat pumps for specific homes in the Project areas. Alternatively, Enbridge Gas’s updated response used low-end and high-end upfront cost estimates provided by HVAC contractors and indicated that assessing upfront costs for a specific home is complex and requires consideration of several factors. Enbridge Gas understands that there is a wide range of potential upfront costs depending on the existing configuration of the home itself. Further and extensive interrogatories in this regard will provide little insight into the specific Project areas and will potentially convert the Applications from leave to construct applications related to Ontario’s Natural Gas Expansion Program into a generic examination of electric heat pump efficiency.
- ED states that Enbridge Gas has not included the calculations and assumptions underlying the information in its updated response. This is not correct. Enbridge Gas included all underlying calculations, including usable Excel spreadsheets with formulae intact, as attachments to Exhibit I.ED.16 part e). The attachments include:

- Attachment 2 – The Guidehouse report
- Attachment 3 – The Guidehouse Excel spreadsheet model, provided in a usable format
- Attachment 4 – Enbridge Gas’s request for cost information provided to HVAC contractors
- Attachment 5 – A summary of responses from each HVAC contractor
- Attachment 6 – Enbridge Gas’s natural gas cost assumptions and calculations used in the cost-effectiveness analysis, provided in Excel with formulae intact
- Attachment 7 – Enbridge Gas’s cost-effectiveness analysis calculations for each scenario, provided in Excel with formulae intact

There is no additional information, calculations, models, or assumptions that the Company has on the topic that it did not provide via the updated response and attachments.

- ED states that Enbridge Gas’s evidence is overly complicated, disjointed, and unhelpful. The Company respectfully disagrees and believes that it has presented clear and comprehensive analysis which displays low-end and high-end cost-effectiveness results for consumer conversions to high-efficiency electric cold climate air source heat pump configurations compared to natural gas furnace configurations for space heating. As described in Enbridge Gas’s interrogatory response, the Company cautions against selective and oversimplified analysis which may not be representative of the actual conversion costs for specific homes in the Project areas. In any event, ED’s statement is no more than a point of argument and is not the proper basis for further factual inquiry.

For the reasons stated above, Enbridge Gas submits that further and extensive interrogatories regarding the cost-effectiveness of high-efficiency electric cold climate air source heat pumps will provide little additional insight into the energy interests of actual residents and business-owners within the Project areas. PP and ED’s submissions regarding the need for supplementary interrogatories make no connection between the additional discovery sought and actual consumer energy interests within the relevant three communities. The Company agrees with the OEB’s findings within its April 17, 2023 Decision on Intervenor Evidence and Confidentiality in that “such matters as potential customer take up of potential alternatives to natural gas, the impact on, and support of the community must be canvassed to make such a determination.” By contrast, the Company’s Applications rely upon local, geo-targeted market analysis conducted to assess and substantiate the energy interests of actual residents and business-owners within each of the three communities.⁶ The interests expressed by actual consumers within a particular Project area are directly reflective of those consumers’ preferences and energy decisions and inherently encompass all relevant factors, including financial and non-financial considerations.

⁶ EB-2022-0156/EB-2022-0248/EB-2022-0249, Exhibit B.

If you have any questions, please contact the undersigned.

Sincerely,

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c.c. Charles Keizer (Torys)
Henry Ren (Enbridge Gas Counsel)
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Catherine Nguyen (OEB Staff)
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Intervenors (EB-2022-0156/EB-2022-0248/EB-2022-0249)