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Ontario Energy Board
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2300 Yonge Street
Toronto, ON M4P 1E4

September 5, 2023

EB-2022-0111 Bobcaygeon Community Expansion Project Leave to Construct
Pollution Probe Interrogatories to the Applicant

Dear Ms. Marconi:

In accordance with Procedural Order No. 1 for the above-noted proceeding, please find attached Pollution Probe's Interrogatories to the Applicant.

Pollution Probe recognizes that this is a large complex Leave to Construct proceeding and has filed questions in advance of the deadline to assist all Parties to the proceeding.

Respectfully submitted on behalf of Pollution Probe.

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Cc: Haris Ginis, Enbridge Regulatory (via email)
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Richard Carlson, Pollution Probe (via email)

EB-2022-0111

ONTARIO ENERGY BOARD

Enbridge Gas Inc.
Bobcaygeon Community Expansion Project
Leave to Construct

POLLUTION PROBE INTERROGATORIES

September 5, 2023

Submitted by: **Michael Brophy**

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Toronto, Ontario M4G 3H4

Consultant for Pollution Probe

1-PP-1

References:

Exhibit A, Tab 2, Schedule 1, Page 1 indicates that Enbridge is requesting OEB approval in this application for the (1) Supply Lateral and (2) the Reinforcement pipelines only.

Exhibit A, Tab 2, Schedule 1, Page 1 Enbridge defines the “Project” as (1) Supply Lateral and (2) the Reinforcement pipelines, plus (3) Ancillary Facilities.

a) Please explain why only part of the “Project” is included in the request for OEB approval?

b) Please explain the impact on the “Project” if any of the following was not approved or constructed:
   - (1) Supply Lateral
   - (2) the Reinforcement pipelines
   - (3) Ancillary Facilities

c) Is there incremental demand capacity in any of the following Project components that will be used for purposes other than serving the proposed 3689 customers, or has all three project components been sized only to serve those customers? Please explain how the excess capacity will be used, if applicable.
   - (1) Supply Lateral
   - (2) the Reinforcement pipelines
   - (3) Ancillary Facilities

1-PP-2

a) Please confirm that the Natural Gas Expansion Program (“NGEP”) does not mandate the OEB to approve the Leave to Construct request. If there is a mandatory requirement for the OEB to provide Leave to Construct approval for this project, please provide the relevant wording.

b) Please confirm that Enbridge will not proceed with the project if Leave to Construct approval is not granted.

1-PP-3

a) Please confirm that the proposed 3689 customers (3,517 residential; and 172 commercial/industrial) would all be general service customers. If incorrect, please provide the breakdown by estimated rate class.

b) What portion of the proposed 3,517 residential customers are seasonal and how was that accommodated in the load forecast, demand modeling and pipeline sizing?

c) Please explain why the proposed customer attachment forecast was decreased from the original estimate and what surveys or additional information supported the decision to decrease the forecast.

d) If 100% of potential customers along the proposed Project attached to it, what number of customers would that represent? (please provide the breakdown by general service for residential, commercial/industrial and other rate class customers if applicable, similar to part a).

e) How many firm confirmation requests have been received from potential customers (please provide numbers by customer type, e.g. residential, commercial, etc.).

1-PP-4

a) What excess capacity is available from the Project to service additional customers in the future beyond the 3689 forecasted, if any?

b) Are the Ancillary Facilities only for the purpose to serve the 3689 customers identified? If not please explain how many of the 3689 customers would be served and what other customers would be served from the Ancillary Facilities now or in the future.

c) Are the Reinforcements only for the purpose to serve the 3689 customers identified? If not please explain how many of the 3689 customers would be served and what other customers would be served from the Ancillary Facilities.

1-PP-5

Reference: Exhibit B, Tab 1, Schedule 1, Attachment 4, Forum Research Survey

The survey response rate was 261/1990 or approximately 13%. Please explain why the survey response rate was so low for this project.

1-PP-6

Reference: "Respondents likely to connect to natural gas and not already using a heat pump as their primary heating equipment, were provided with information about both the costs and benefits of switching to an air source heat pump, as an alternative to natural gas heating." [Exhibit B, Tab 1, Schedule 1, Attachment 4, Forum Research Survey]

a) Please provide a copy of the information and materials provided to consumers about both the costs and benefits of switching to an air source heat pump, as an alternative to natural gas.

b) Enbridge had previously indicated that it is not the role of the gas utility to provide consumer information on non-gas alternative[1]. Please explain why Enbridge took a more holistic consumer information approach for this Project (i.e. is this a change in Enbridge's policy/approach or specific to the characteristics of this Project).

1-PP-7

Reference: "Considering that the proposed Project was previously reviewed and approved by the Government of Ontario and the OEB for the purposes of granting funding under Phase 2 of the NGEP, Enbridge Gas did not assess other facility alternatives." [Exhibit C, Tab 1, Schedule 1, Page 2]

a) Please provide a copy of the approvals from the Government of Ontario and the OEB for this Project, and please highlight the specific approvals and scope related to this Project.

b) Please confirm that NGEP approval for access to grant funding does not automatically provide Leave to Construct (or other required regulatory) approvals related to this project.

c) Please provide any approvals received from the Government of Ontario and/or the OEB related to:
   - the Reinforcement pipelines
   - Ancillary Facilities

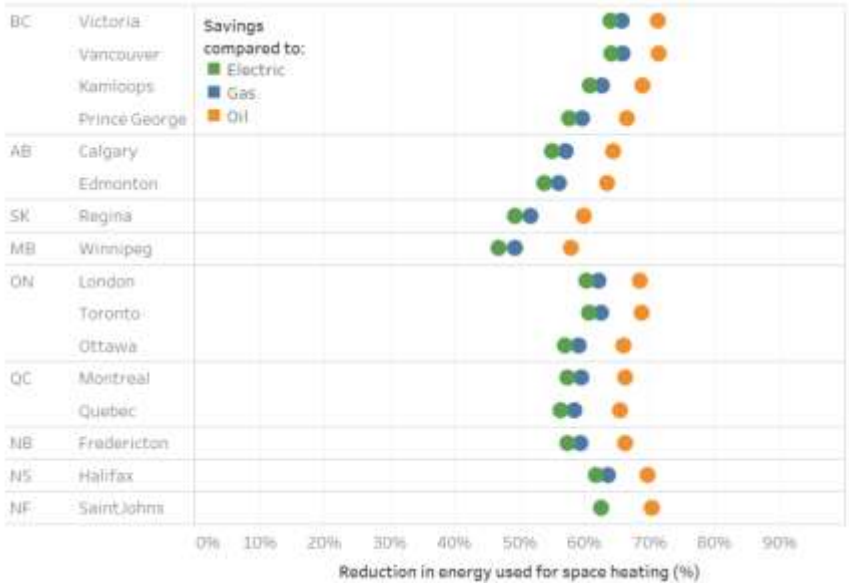
d) Is there a mandated timeframe under NGEP for completion of the proposed pipeline? If yes, please provide the relevant condition that dictates specific timing.

[1] EB-2022-0249/0248/0156 EGI ReplyARG_HV-MBQ-Selwyn_20230823 Paragraph 31.

1-PP-8

Reference: PollutionProbe_IR_AppendixA_CanmetReport [from Enbridge per EB-2022-0200 Exhibit J11.5]

Figure 1: Energy Savings (percentage) for a ccASHP compared to natural gas, oil and baseboard electric.



The CanmetENERGY cold-climate air source heat pump (ccASHP) Report filed by Enbridge indicates in Figure 1 (above), that for Ontario jurisdictions a ccASHP is approximately 50% to 70% more efficient than natural gas, oil or resistance (i.e. baseboard) electric.

a) Please indicate whether this information for ccASHPs was shared with potential customers as part of the information related to heat pumps. If it was, please provide a copy of the information/materials provided to consumers.

b) This information was provided by Enbridge in 2023 based on a 2022 Study. If Enbridge has a more recent/relevant study/information that provides a different savings rate for ccASHPs vs. natural gas, oil or electric resistance heating, please provide a copy.

1-PP-9

Reference: PollutionProbe_IR_AppendixB_ASHPCalculator per EB-2022-0200.

The referenced online air source heat pump calculator compares annual heating costs compared to natural gas. If Enbridge has another source and values it believes is more accurate, please provide a copy.

1-PP-10

Reference: PollutionProbe_IR_AppendixC_HeatPumpConversionGuidehouse per EB-2022-0200.

Enbridge's Guidehouse Energy Transition expert indicated that 40% to 85% of Ontario households are expected to switch to a heat pump by 2050. If Enbridge has more current information or reports, please provide a copy.

1-PP-11

Please confirm that Enbridge uses an average gas furnace life of 18 years as the best available assumption for its DSM Program. If a more recent (OEB approved) average life value is available, please provide the source.

2-PP-12

Please confirm that the Reinforcement included in the Project scope would require full OEB IRP assessment if it were filed as a discrete Leave to Construct application. If that is incorrect, please explain why.

2-PP-13

Reference: Figure 1: Annual Energy Costs & Savings Versus Natural Gas, Including SES [Exhibit B, Tab 1, Schedule 1]

a) Please confirm that the values in Figure 1 relate to fuel only and do not include incremental equipment costs to retrofit a home or business with natural gas.

b) Please confirm that the values in Figure 1 only include costs and savings related to heat and exclude costs/savings for cooling.

c) Please confirm that the values in Figure 1 related to electricity are for electric resistance (e.g. baseboard) heating only. If that is not correct, please state the assumptions and provide the calculation.

2-PP-14

Please confirm that the residential fixed bill estimate for customers is approximately $50 per month [per Enbridge evidence in EB-2022-0200]. If incorrect, please provide an updated estimate and reference.

2-PP-15

Reference: Exhibit B, Tab 1, Schedule 1, Pages 3-4, including Figure 1.

“Natural gas continues to maintain price competitiveness against other energy alternatives in Ontario. Figure 1 below shows this price advantage, inclusive of the proposed $0.23/m³ System Expansion Surcharge (“SES”).”

a) Please confirm that the options provided in Figure 1 are meant to represent common fuels used historically in comparison to natural gas and not a comprehensive list of current/future options for consumers in the community. If not correct, please explain.

b) Please explain why other current/modern options have not been included in the Figure 1 comparison and related marketing information, specifically cold climate air source heat pumps.

2-PP-16

Reference: "Enbridge Gas served new or upgraded natural gas service requests from customers on the understanding that these customers are sufficiently informed about the available energy and technology solutions and that they have chosen the alternative that best suits their needs" [EB-2022-0200 2.6-Staff-81, part (c)]

Please confirm that the above evidence from Enbridge is still accurate. If it is no longer accurate, please provide updated evidence to indicate how Enbridge views its role in providing resources and educational information on a full range of modern energy/technology options to new, potential or existing customers.

2-PP-17

Reference: “Recent pricing data for natural gas and alternative energy sources continue to show cost savings despite the $0.23/m3 SES”. [Exhibit B, Tab 1, Schedule 1, page 4]

Please provide the full list of ‘alternative energy sources’ considered and provide cost comparison analysis for any beyond resistance (e.g. baseboard) electric, propane and heating oil.

2-PP-18

Please provide a copy of the all materials used for public consultation including those used for the Open House.

2-PP-19

Reference: Exhibit B, Tab 1, Schedule 1, including Table 1.

a) Table 1 indicates that the penetration rate for heat pumps is 15%. Does Enbridge have information to explain why the heat pump penetration is significantly higher for the communities to be served by the Project, compared to other recent projects. If yes, please provide details.

b) Please confirm that the information in Table 1 does not include any calculations related to cooling (i.e. heating only).

c) Table 1 indicates that Enbridge was not able to calculate the annual energy bill for those using a heat pump, but was able to calculate the annual bill for resistance (e.g. baseboard) electric, propane and heating oil. Please explain why Enbridge was able to only calculate some of the comparison figures and not heat pumps.

d) Please provide the calculations for each fuel annual bill and savings rate vs. natural gas used in Table 1.

e) Please provide Enbridge's best estimate, calculation and reference sources for the equivalent Table 1 values for a cold climate air source heat pump.

2-PP-20

a) Please provide a copy of all marketing and communication material provided by Enbridge or partners to consumers/businesses in the community to promote DSM or other energy efficiency opportunities when considering renovation of a primary (water/space) heating systems.

b) Please provide a copy of all communication material provided by Enbridge or partners to educate consumers/businesses on options and incentives under the Greener Homes program (delivered by Enbridge in Ontario).

c) Please provide a table (or marketing material if a table is already included) of potential Greener Homes Grant Program incentives for residential homes, including those for air source heat pumps.

d) Please confirm that Enbridge Gas is delivering the Greener Homes Grant program in the area impacted by the proposed project.

e) Please confirm how many potential customers have expressed interest to leverage incentives through the Grener Homes Grant program for retrofits.

f) Please confirm how many of the potential attachments have completed one or more home audits required to participate in the Greener Homes Grant Program.

g) Has Enbridge conducted analysis on consumers along the proposed pipeline that can or have (currently or recently) participated in the Greener Homes Grant Program. If yes, please provide a copy of the information and analysis.

3-PP-21

a) What is the minimum number of customers that will need to attach to the proposed pipeline for it to be feasible?

b) Please explain what the financial implications are if less customers attach than forecasted?

3-PP-22

a) Please confirm that the amortization period (for EBO 188 analysis) for the proposed Project in the application is 40 years. If that is incorrect, please provide the correct figure.

b) Please provide the EBO 188 wording that mandates a 40 year period be used for project economic analysis.

c) Please confirm the actual amortization that Enbridge intends to apply to the Project (or if it varies by Project elements, e..g. (1) Supply Lateral and (2) the Reinforcement pipelines, plus (3) Ancillary Facilities, please provide info for each).

d) Please explain how any residual (unamortized) costs would be recovered from rate payers if the proposed pipeline becomes stranded (i.e. not used and useful) before it is fully depreciated.

3-PP-23

Has Enbridge conducted a risk assessment on the probability that the proposed pipeline will become a stranded asset before being fully depreciated? If yes, please provide a copy of the assessment and all related materials. If no, what evidence exists to support that the pipeline will remain used and useful for the full amortization period.

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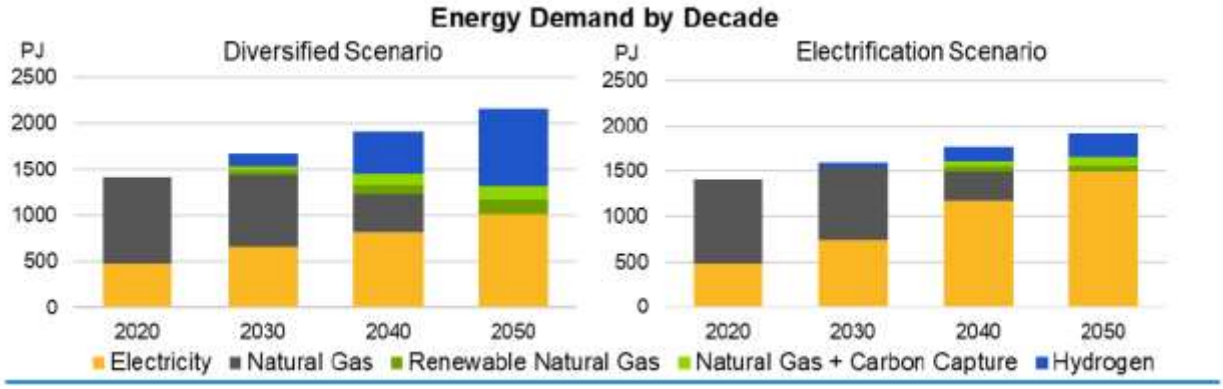
3-PP-24

Reference: Pathways to Net Zero Emissions for Ontario [2].



Enbridge indicates that for both the (Enbridge-preferred) Diversified Scenario and the Electrification Scenario that by 2050 natural gas will no longer be used in Ontario with the potential exception of select large volume industrial customers that have economic access to carbon capture and geological sequestration.

a) Please explain why an amortization period past 2050 (i.e. greater than 25 years) is appropriate if natural gas will no longer be available to these customers prior to 2050.

b) Please confirm that Enbridge has not received approval (from the OEB, TSSA or other relevant regulator) for use of 100% hydrogen for the Project assets proposed. If approval has been received for 100% hydrogen, please provide a copy of such approval.

c) If Enbridge intends to use hydrogen to serve this community once natural gas is no longer available, please provide details on the source, transmission and lifecycle carbon emissions of the proposed hydrogen.

3-PP-25

Is this proposed Project included in the most current Enbridge Asset Management Plan (AMP) and Utility System Plan (USP)? If not, why not. If yes, please provide the references and documents (or links).

[2] EB-2022-0200 Exhibit 1.10.5.2_Pathways to Net-Zero Emissions for Ontario_BLACKLINE_20230421

3-PP-26

a) Enbridge indicates that the System Expansion Surcharge ("SES") to all new customers taking gas distribution service from the Project will be a fixed volumetric rate of $0.23 per cubic metre of gas to be charged in addition to Enbridge Gas's base distribution rates as approved by the OEB. The SES is proposed to be charged to all customers taking gas distribution service from the Project for a term of 40 years. Please indicate the SES impact if the amortization period the OEB approves is less than 40 years (e.g. 25 years).

b) Please confirm that the SES rate of $0.23 per cubic metre applies to both permanent residential and seasonal properties.

3-PP-27

Please confirm that Enbridge will fund this project from its capital envelopes for 2024 and 2025 if approved by the OEB. If that is not correct, please clarify.

3-PP-28

Reference: Exhibit E, Tab 1, Schedule 1, Table 1.

Please explain why the Project does not include indirect capital overheads and if Enbridge considers the Ancillary Facilities as separately from the project, will they also not have indirect overheads applied?

3-PP-29

Please provide the cost estimation (amount and cost) for the Project related to the following elements and if available, benchmark actual costs from recent projects.

- Well Testing
- Bedrock
- Water course crossings

4-PP-30

Reference: PollutionProbe_IR_AppendixE_ExpansionProjectPI

Recent Enbridge Community Expansion Projects have shown a trend of decreasing Portfolio Index (PI) and a lower actual PI than forecasted in the OEB Leave to Construct proceedings. This has also cause the Project Portfolio to dip below the OEB required PI=1.0. Please indicate how the proposed Project compares to other recent community expansion projects and why the OEB should not expect this Project to follow the noted trend.

3-PP-31

Below is a summary of costs due to the Project and consumers attaching to the Project. If any values are not correct or missing, please provide an updated value and reference.

Item	Estimated Cost
Project Initial Capital Cost • (1) Supply Lateral • (2) the Reinforcement pipelines • (3) Ancillary Facilities Total	 (1) $35,204,268 (2) $9,736,556 (3) $70,256,356 $115,197,180
NPV of O&M Cost (gas) per customer[3]	$10,483,000
NPV of other expenses per customer[4]	$40,904,000
Average Cost of a Residential Customer[5] (service, meter, O/Hs, etc.)[6]	$5991

4-PP-32

Please provide an updated project schedule or confirm the schedule filed if still accurate. [Reference: Exhibit D, Tab 2, Schedule 1.]

4-PP-33

Please provide any additional comments since the application was filed, based on the Notice of Project Amendment to the OPCC May 2023, or other parties via stakeholder engagement.

4-PP-34

Reference: The leak test will use water as the test medium [Exhibit D, Tab 1, Schedule 1, Page 8]

a) Please provide the source and discharge location for the water related to the pipeline testing for the entire Project.

b) Please provide the calculations related to the volume of water required for the pipeline testing for the Project.

c) Please identify what permits have been obtained or will be required for the taking of water and discharge of wastewater related to pipeline testing for the Project.

[3] Per Exhibit E, Tab 1, Schedule 1, Attachment 1
[4] $8,853,000 + $32,051,000 = $40,904,000 per Exhibit E, Tab 1, Schedule 1, Attachment 1
[5] EB-2022-0200 Exhibit J13.8
[6] Cost for industrial/commercial would be higher, but residential used to estimate lower end of the range.

4-PP-35

Please confirm that the Environmental Report and related OPCC consultation relates to the proposed Supply Lateral and the Reinforcement pipelines, but not the Ancillary Facilities. If that is incorrect, please provide details on the specific scope of the OPCC review.

4-PP-36

Reference: Exhibit F, Tab 1, Schedule 1, Attachment 2, Page 3

Please explain why the Environmental Report includes a second study area component different from the study area proposed for the Project in this application.

4-PP-37

Reference: Exhibit F, Tab 1, Schedule 1, Attachment 1.

The Environmental Report (3.25) identifies 10 Provincially Significant Wetlands along the Preferred Route, plus additional non-rated wetlands. Please provide details on what approvals and additional studies Enbridge is undertaking related to these wetlands.

4-PP-38

Reference: Exhibit F, Tab 1, Schedule 1, Attachment 1.

Ministry of Northern Development, Mines, Natural Resources and Forestry [MNDMNRF] identified several annual construction restriction windows to protect (cold water) watercourses along the Preferred Route. Please identify how many of the watercourse crossings are impacted by those restriction windows and how Enbridge plans to accommodate those restrictions during construction.

4-PP-39

Reference: Exhibit F, Tab 1, Schedule 1, Attachment 1.

The Environmental Report identifies areas of exposed bedrock.

a) Has Enbridge determined the type of bedrock along the Project and conducted an overburden survey indicating the length of bedrock likely to be encountered? If yes, please provide a copy.

b) Enbridge indicated that it intends to directional drill all watercourse crossings. Has Enbridge determined bedrock depth at watercourse crossing to confirm directional drill is an option for each? If yes, please provide the data and analysis.

4-PP-40

Please provide a copy of the detailed mitigation plan for the proposed pipeline.

4-PP-41

Reference: Exhibit D, Tab 1, Schedule 1, Attachment 1

a) Please confirm the design scope reviewed by TSSA per the January 6, 2022 letter matches the updated design scope for the Project. If it does not, please indicate when Enbridge estimates an updated application and TSSA approval letter matching the Leave to Construct application design scope.

b) Please confirm that the design scope of the TSSA application and review includes the full scope of the Project as defined by
   - (1) Supply Lateral
   - (2) the Reinforcement pipelines
   - (3) Ancillary Facilities

   If not, please explain why not.