

EB-2022-0200

Enbridge Gas 2024 Rebasing

TFG Compendium for Panel #11 – EGI Capex and AMP

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

Interrogatory

Reference:

Exhibit 2, Tab 6, Schedule 2

Question(s):

- a) Please provide a table listing the total AMP investments driven by forecast growth in design day or design hour demand for each year from 2023 to 2032. Please also include a breakdown between transmission and distribution projects.
- b) What is the probability that a material portion of those investments will be underutilized before the end of their economic life in that the revenue or other benefits underlying the EBO 134 or EBO 188 analysis falls short of the forecasted amount?
- c) What is the probability that a significant portion of those investments will be stranded before the end of their economic life in that the incremental capacity is no longer needed because demand declined before that time.
- d) Please confirm the net benefits and revenue horizon user in EBO 134 and EBO 188.
- e) Please comment on the pros and cons of decreasing the net benefits and revenue horizon underlying the economic analysis set out in EBO 134 and EBO 188 to account for the possibility that the relevant capacity may not required for the full time period.
- f) Is this proceeding the appropriate proceeding to consider adjustments to EBO 134 or EBO 188 such as the one described in (e)? Is it within the OEB's jurisdiction to do so? If Enbridge believes this is not the appropriate proceeding to consider these issues, what proceeding should they be considered in?

Response:

The following response has been updated to reflect the Capital Update provided at /u Exhibit 2, Tab 5, Schedule 4, filed on June 16, 2023.

- a) Please see updated Attachment 1. /u
- b) Enbridge Gas is unable to approximate the probability that any proportion of these investments will be underutilized before the end of their economic life. Please see response at Exhibit I.2.6-STAFF-70 part b) for further discussion on this topic.
- c) Enbridge Gas is unable to approximate the probability that any proportion of these investments will be stranded before the end of their economic life. Please see response at Exhibit I.2.6-STAFF-70 part b) for further discussion on this topic.
- d) The customer revenue horizon used in E.B.O 188 evaluations is 40 years except for large volume customers where the maximum is 20 years. E.B.O 134 evaluations are performed over a 40-year horizon.
- e) Please see response to part f).
- f) Enbridge Gas does not believe it is appropriate to consider adjustments to E.B.O 134 or E.B.O 188 within this Application.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Ontario Energy Board Staff (STAFF)

Interrogatory

Reference:

Exhibit 2, Tab 6, Schedule 1, pp. 35-48, Tables 4, 5 and 6

Question(s):

Enbridge Gas's projected spend totals \$6.9 billion from 2024 to 2028 and \$13.8 billion from 2023 to 2032.

- a) In Tables 4, 5 and 6, Enbridge Gas has provided a list of several large projects such as Dawn C Compression, Hamilton Industrial Reinforcement, Dawn to Parkway Expansion, Looping to Comber Transmission and Panhandle Line Replacement. Please confirm that the cost of these projects will be recovered from Enbridge Gas customers over the next 40 to 50 years.
- b) Does Enbridge Gas expect to see a significant reduction in the consumption of natural gas in Ontario within the next 20 years? If yes, please describe the steps that Enbridge Gas has taken or intends to take to ensure that ratepayers are not burdened with cost recovery related to stranded assets.
- c) Please explain how these projects would be considered essential and prudent considering Canada's carbon reduction goals.

Response:

- a) Not confirmed. Based on proposed depreciation rates filed in this proceeding, Enbridge Gas expects to recover the cost of these projects over the next 40 to 60 years.
- b) Enbridge Gas expects that meeting emissions reduction targets over the next 20 years will require significant changes in the use of natural gas; however, it is not known at this time what those changes might be due to several key factors. First, factors that could increase the volume of gas flowing through the system include fuel switching from higher emitting fuels to natural gas and displacement of natural gas by blended fuels like hydrogen. Secondly, some customers could maintain their current natural gas consumption and pair it with CCUS or RNG. Thirdly, the adoption

of emissions reduction energy solutions like hybrid heating would reduce customers' annual natural gas consumption; however, it may not reduce Enbridge Gas's design day demand or design hour demand, which is what is used to determine project needs. Finally, Enbridge Gas's existing 150,000 kms of underground energy infrastructure provides resiliency at low cost; therefore, existing customers could retain their peak capacity for resiliency products like gas generators or gas fireplaces, even if they replace their gas appliances with electric, and efficiency gains could be offset by growth in customers seeking resiliency.

Resiliency must be a key consideration in the energy transition; therefore, it would be prudent for the capabilities of the gas system to be factored into a pathway to net-zero. Response at Exhibit I.1.10-SEC-28 further describes the resiliency benefits of the gas system. All of the factors noted above would be consistent with emissions reductions. Response at Exhibit I.1.10-STAFF-34 part a) describes the steps Enbridge Gas is taking to mitigate the risk to ratepayers from future stranded assets.

- c) As described in response at Exhibit I.1.10-STAFF-34, Enbridge Gas will ensure a high certainty of demand during the regulatory plan period for the projects it is advancing and is taking steps to mitigate the risk of stranded assets as a result of energy transition. Projects that require Leave to Construct applications will demonstrate project need and prudence through the regulatory process including the consideration of IRPAs.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Three Fires Group Inc. (Three Fires)

Interrogatory

Reference:

Exhibit 1, Tab 10, Schedule 4

Preamble:

Enbridge describes the energy transition assumptions that Enbridge Gas has incorporated into the Company's forecasting and planning processes, and the impacts on the Company's Asset Management Plan ("**AMP**"), finance and regulatory approaches. It states that the forecasts are important inputs into the Company's planning activities, such as the AMP development, gas supply planning, and rate setting. It further states that historically these Enbridge Gas forecasts only considered climate policies that had already been implemented.

Question(s):

- a) Please explain the considerations that helped determine Enbridge's decision to begin to include in its forecasting policies that have not already been implemented.
- b) Please explain Enbridge's reasoning in previously including only climate policies that had already been implemented.
- c) Please describe any disadvantages to the new approach of including in Enbridge's forecasting policies that have not already been implemented.
- d) Please describe the general composition of internal teams that Enbridge has used for the purposes of developing and applying its energy transition assumptions, and/or towards performing the reviews set out at paragraph 6 of Cara-Lynn Wade and Jennifer Murphy's evidence. In particular, please include details such as the number and seniority of personnel responsible, the approximate portion of their time devoted to analyzing energy transition issues, their general experience in the area, and any resources of significance that they have available to them in performing this aspect of their work.
- e) With respect to Enbridge's statement at paragraph 11 that insufficient certainty exists concerning future requirements for new build and retrofit building codes, why does Enbridge not incorporate some form of scenario analysis as opposed to excluding

the effects of new build and retrofit building codes?

- f) Please describe the general thinking behind the forecasts set out in Table 2. In particular, please describe any scenario analysis that Enbridge has performed and why Enbridge has settled on the figures set out in the table.
- g) Does the Customer Additions Forecast take into account any impact of increased cost to remaining consumers resulting from other customers transitioning away from use of natural gas?
- h) What new or increased challenges will Enbridge face – for example with respect to increased costs or customer retention – in the event Ontario assumes a more status quo orientation to energy transition in the short-term, then pivots sharply to more drastic electrification scenarios in the medium term (i.e., over the next 3-6 years)?
- i) What would the scenario referenced in question (h) immediately above mean for Enbridge customers in terms of new or increased challenges? Will these effects be uniform, or will they be felt disproportionately by certain individuals or groups?

Response:

a -c) Historically, Enbridge Gas only included the policies that were implemented because the impacts of future policies were not known and/or quantifiable. As provided at Exhibit 1, Tab 10, Schedule 6, paragraph 20, there has been significant development of climate and energy transition targets and plans in Canada at all levels of government in the last few years. While there remains a significant lack of details on how these targets will be met, and development of detailed policies is still in progress, Enbridge Gas believes it is prudent to incorporate energy transition assumptions into the Company forecasts where there is reasonable certainty based on policy signals, market trends and stakeholder feedback.

In the development of energy transition adjustments to the forecasts, Enbridge Gas took a conservative approach. Overestimating the impact of climate and energy transition policies could create a risk that Enbridge Gas does not have sufficient assets in the Company's Asset Management Plan (AMP) and/or Gas Supply Plan. Enbridge Gas has prudently incorporated energy transition related assumptions and, therefore, does not consider there to be disadvantages to the Energy Transition review and adjustment process that it has implemented.

As provided at Exhibit 1, Tab 10, Schedule 6, Section 4 and Exhibit 1, Tab 10, Schedule 4, paragraph 8, Enbridge Gas plans to continue evolving the Company's stakeholder engagement and evaluating the impacts of policies as certainty of implementation date and impact on the Company's forecasts is established.

- d) The development of energy transition assumptions and the reviews set out at Exhibit 1, Tab 10, Section 4, paragraph 6 was led by the Carbon and Energy Transition Planning team. The Carbon and Energy Transition Planning team is led by Jennifer Murphy, Manager Carbon and Energy Transition Planning, and Cara-Lynne Wade, Director Energy Transition Planning, and their CVs are provided at Exhibit 1, Tab 1, Schedule 5 pages 61 and 89, respectively. Please see response at Exhibit I.1.6-CCC-22 for a description of the team composition. Additional departments that supported the development and application of energy transition assumptions include Finance, Customer Care, Engineering, Business Development and Regulatory, and Energy Services.
- e) Enbridge Gas undertook the Energy Transition Scenario Analysis (ETSA) Project as provided in Exhibit 1, Tab 10, Schedule 5, Attachment 1 as a means of visualizing possible outcomes from various scenarios. As provided at Exhibit 1, Tab 10, Schedule 4, paragraphs 6 and 7, the ETSA project was used as one of several inputs to develop energy transition adjustments to the forecast. From a forecasting and planning perspective, it is not practical to undertake scenario analysis for the numerous possible individual future changes that could occur in the future. The level of effort to create multiple forecasts and plans is prohibitive.
- f) Please see the response at Exhibit I.1.10-STAFF-27 part a), and Exhibit I.1.10-GEC-10 part c).
- g) Enbridge Gas's Customer Additions Forecast does not take into account any impact of increased cost to remaining consumers resulting from other customers transitioning away from use of natural gas.
- h - i) Please see response at Exhibit I.1.10-SEC-19. Enbridge Gas cannot determine if different customer types will be disproportionately impacted by other customers fuel-switching without undertaking further analysis which cannot be carried out at this time.

ENBRIDGE GAS INC.

Answer to Interrogatory from
Environmental Defence (ED)

Interrogatory

Reference:

Exhibit 1, Tab 10, Schedule 5, Attachment 1, p. 40

Preamble:

Exhibit 26 – Scenario Narratives

<i>Scenario Title:</i>	Reference Case	Steady Progress	Diversified Portfolio	Electricity Centric
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Question(s):

- a) For each scenario, please provide relative cost-effectiveness of residential space conditioning and cooling from a customer perspective as between (i) gas equipment and a traditional air conditioner, (ii) hybrid heating, and (iii) a house fully electrified with heat pumps (and not required to pay for gas distribution charges).
- b) Please confirm that the relative cost-effectiveness of the above options will impact gas demand.
- c) Page 40 states: “The ETSA project team built off the scenario narratives envisioned by Enbridge Gas prior to beginning the project to draft scenario narratives.” Please provide a copy of what Enbridge provided.
- d) This question is for Enbridge: How did Enbridge develop the scenario narratives provided to Posterity Group? Please provide any reports or memos in relation the development of those narratives.
- e) Please assess the relative probability of the future being more similar to the reference case, study progress, diversified portfolio, or electricity centric scenarios.

Response:

a-b) The following response was provided by Posterity Group:

The Navigator model can conduct cost-effectiveness tests on individual measures, but is not designed to produce the kind of cost-effectiveness calculation contemplated in this question. Also, developing costs estimates were not part of the study scope.

c) The following response was provided by Posterity Group:

Scenario narratives were developed via discussions with the Enbridge Gas team. Enbridge Gas did not provide a document describing what the organization envisioned.

d) As noted by Posterity in part c), scenario narratives were developed via discussions between Enbridge Gas and Posterity. Enbridge Gas and Posterity worked collaboratively and through an iterative process to develop the scenarios and critical driver settings. The process describing the development of scenario narratives and the final scenario narratives is provided in Exhibit 1, Tab 10, Schedule 5, Attachment 1, pages 39 to 41.

e) The following response was provided by Posterity Group:

We did not assign any probabilities to any of the scenarios. We view the multi-scenario modeling approach as a way to mitigate risk. We advise our utility clients to develop plans that are robust in the face of a range of plausible scenarios, particularly in cases where future policy, prices, and economic variables are uncertain.