

REF: Exhibit B, Tab 1, Schedule 1, Page 3

Preamble: EGI evidence states: “The heating value of hydrogen is approximately 1/3 that of natural gas.”

We appreciate that EGI is striving to compensate for the impact to heat value. We would like to understand how EGI is compensating for other aspects of the hydrogen stream.

- 1) What is the maximum pressure that flows through a customer meter in the service territory?
 - a) Please describe how EGI has compensated for the difference in hydrogen’s characteristics of supercompressibility.

REF: Exhibit B, Tab 1, Schedule 1, Page 4

Preamble: EGI evidence states: “Commodity Impact – This is the gas cost impact associated with procuring hydrogen rather than traditional natural gas for customers in the BGA. Enbridge Gas is proposing to acquire hydrogen in a manner that keeps ratepayers cost-neutral.”

We would like to understand better the expected cost of hydrogen.

- 2) From the research done by EGI, what was the cost of hydrogen?
 - a) What agreement does EGI have in place with its affiliate to pay for hydrogen?
 - b) Please provide the mechanism, formula or other construct that EGI has entered into to pay for hydrogen.

REF: Exhibit B, Tab 1, Schedule 1, Page 5

Preamble: EGI evidence states: “An affiliate of Enbridge Gas, 2562961 Ontario Ltd., has developed and built North America’s first utility scale PtG facility in Markham, Ontario.”

We would like to understand how EGI is managing the potential for conflict of interest in this relationship.

- 3) Please provide the percentage ownership that Enbridge Inc. has in the named Ontario company.
 - a) Please describe how EGI plans to manage any potential conflicts of interest in this emerging market.

REF: Exhibit B, Tab 1, Schedule 1, Page 6

Preamble: EGI evidence states: “The hydrogen produced by the plant will be captured, stored and injected into the portion of the Company’s gas distribution system serving the BGA, thereby lowering the GHG emissions associated with the consumption of natural gas in this area and greening the gas distribution grid.”

We would like to understand better how equipped EGI is to maintain a constant 2% blend during this pilot.

- 4) Based upon an average winter day consumption, how many days can the hydrogen storage provide a 2% hydrogen injection into the system?

REF: Exhibit B, Tab 1, Schedule 1, Page 12

Preamble: EGI evidence states: “The hydrogen blending station will control the amount of blended gas being injected into the natural gas distribution system.”

We would like to understand better the risks and mitigation strategies that EGI has contemplated.

- 5) Please describe the potential failure modalities of the blending station.
 - a) For each, please provide the fail safe mechanism that is applied.

REF: Exhibit B, Tab 1, Schedule 1, Page 16

Preamble: EGI evidence states: “Given that the Proposed Facilities are required to enable the Company to reduce the GHG footprint of its utility gas distribution system, these facilities should be fully attributed to system reinforcement and general distribution growth and managed within the rolling project portfolio in accordance with Enbridge Gas’s normal business practice.

We would like to understand the basis upon which EGI is proposing this classification and what options were or should have been considered.

- 6) Please describe how this investment contributes to reinforcement of the system and growth of the distribution system.
 - a) Please describe what other categories considered (e.g., separate account to track capital, analysis, maintenance costs)
 - b) Please provide the company’s view on why this investment is not an investment in long-term recovery of asset return more akin to business development.

REF: Exhibit B, Tab 1, Schedule 1, Page 18

Preamble: EGI evidence states: “There will be no impact to customer bills as the cost of hydrogen will be the same as the cost of traditional natural gas.”

We would like to understand better the equivalency suggested in this statement.

- 7) Please clarify on what basis is the price of hydrogen and natural gas equivalent?
 - a) On that basis of equivalency, please provide the market price of hydrogen from a referenced source.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 2

Preamble: EGI evidence states: “Any recommendations resulting from this work were based on validation against existing operational and design practices to identify and track potential gaps and/or incompatibilities in order to facilitate the effective implementation into Enbridge Gas’s Operations.”

We would like to understand better this validation process and what “existing operational and design practices” were used for this novel application.

- 8) Please provide the source technical documents relied upon for the impact of hydrogen on pipeline components and appliances.
 - a) Please provide the report containing the recommendations.
 - b) What is the company’s opinion on who would be at risk for any costs incurred as a result of failure of components or appliances as a result of the hydrogen blend.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 10

Preamble: EGI evidence states: “This information was gathered in order to inform subsequent work streams on which levels of hydrogen blending should be considered and served as information to orient the further investigation required. Among other things it served to provide a baseline range of hydrogen blending values that may be technically feasible. It also identified the key issues and challenges that must be addressed at a network specific level.

We would like to understand better how this assessment was performed (individually, combined, etc.).

- 9) Please provide a summary of the information collected.
 - a) Were the different aspects of pipeline components and appliances researched separately?
 - b) Were the ranges of acceptable hydrogen blend the same? Please clarify the ranges defined.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 14

Preamble: EGI evidence states: “In heating and cooking appliances, the major concerns are flashback and burner overheating. Flashback occurs when the flame retreats back into the tip of the combustion nozzle. Burner overheating can result in failure in extreme cases, but over time can cause issues with the integrity of burners that were not designed for higher temperatures or built with substandard materials.”

We would like to understand better this concept of overheating when considered in conjunction with other evidence provided.

- 10) If the heat value of hydrogen is less than natural gas, please explain how the blended gas stream would cause the potential for overheating?

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 15-16

Preamble: EGI evidence states: “Enbridge Gas consulted with the Technical Standards and Safety Authority (TSSA) to introduce and provide information on the Project. The TSSA indicated that they will act as a technical reviewer on behalf of the Ontario Energy Board for the LTC application if requested.”

We would like to understand better how the TSSA intends to perform the role of technical reviewer.

- 11) Please provide a reference to the standards that the TSSA has applied to technical reviews of other hydrogen-natural gas blend projects?
- a) Would these standards be applied to the review of this project?
 - b) If not, what standards will be applied?

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 16

Preamble: EGI evidence states: “SNG/MG covers a wide range of compositions that generally fall within the following limits:

- 10 to 90% by volume hydrogen
- 200 ppm to 90% by volume carbon monoxide
- Balance – inert gasses, carbon dioxide, methane

- 12) Please provide the referenced source for the ranges of composition.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 1, Page 16

Preamble: EGI evidence states: “*End-user Equipment*: In the specific area of study, based on the local gas composition, heating equipment and appliances, the upper limit for hydrogen was found to be 2% by volume.”

We would like to understand better the constraints on the chosen level of blend.

- 13) Please provide the interaction that produced the limitation.
- a) What other alternatives to hydrogen limit threshold were considered?

REF: Exhibit D, Tab 1, Schedule 1

Preamble: The referenced exhibit identifies test pressures for leak tests. We would like to understand better the testing that EGI has contemplated to test continued integrity of the system after a long duration of exposure (e.g. years) to the hydrogen blend.

- 14) Are the pipelines in the loop amenable to any imaging or other inspections which would inspect their integrity after lengthy exposure?
- a) Please explain in detail how EGI will ensure that there are no compromises to the integrity of the system prior to expanding the application of the hydrogen blend to other areas.