

REF: Exhibit B, Tab 2, Schedule 1, Page 4-5, Tables 1 and 2

Preamble: The referenced tables show overheads as a separate line item and then incorporated into the other capital categories. We are interested in understanding the impact of these overheads in base rates, the evolution of the overhead impact since that time and the effect of ICM on capital spending.

- 1) For each of the respective Legacy companies/current Rate Zones, please provide the amount of revenue requirement that was generated from capitalized overheads for the purposes of ratemaking on a percentage and actual basis.
 - a) For each year since 2016 actual to forecast 2025, please provide the amount of revenue requirement generated from capitalized overheads.
 - b) For each year since the introduction of ICM and subsequent years, and for each category of spending in the table, please break out the spending that is generated from ICM and non-ICM.

Preamble: We are interested in understanding what factors, condition rating or otherwise have contributed to the step change in spending for System Renewal.

- 2) Please confirm that the average actual spend for System Renewal from 2016-2019 for Enbridge was \$104M and for Union was \$98M and that the average forecast or budgeted spend for 2020-2025 for Enbridge Rate Zone is \$295M and Union Rate Zone is \$235.
 - a) Please list all of the condition rating changes made by the merged company that contributed to the step increases in System Renewal spending.
 - i) Please provide documentation of these rating changes identifying the drivers of the change (e.g., Code, regulation, improved diagnostics, etc.)
 - b) Please list all of the economic assessment changes made by the merged company that contributed to the step increases in System Renewal spending.
 - i) Please provide documentation of these economic assessment changes identifying the drivers of the change.

REF: Exhibit B, Tab 2, Schedule 1, Page 6

Preamble: EGI evidence states: *“System access investments are additions and modifications (including asset relocation) to the Enbridge Gas distribution system that the utility is obligated to perform in order to provide a customer or group of customers with access to natural gas services via the distribution and transmission systems. System Access capital expenditures are driven mainly by Customer Growth, Natural Gas Vehicles (NGV) and third party driven rebillable relocation projects.”*

- 3) Please provide the guiding decision, directive or other order that obligates the utility to provide service for NGV.
 - a) Please provide the forecast for NGV spending incorporated into the System Access category for each of the years presented.

REF: Exhibit B, Tab 2, Schedule 1, Page 32 and
EB-2020-0067, EGI Reply Submission, Attachment 1, Page 1

Preamble: EGI evidence in this proceeding states: *“The ICM unit rates presented in Appendix G were prepared assuming an implementation date in rates of January 1, 2021. Following the Board’s Decision in this proceeding, Enbridge Gas will file a draft rate order including updated ICM unit rates to reflect recovery of the total revenue requirement of the projects for the deferred rebasing period beginning with the implementation date if different than January 1, 2021.”*

- 4) Using a presentation similar to the attachment referenced from EB-2020-0067, please provide the rate impacts from Appendix G if implemented April 1, 2021 and separately, if implemented July 1, 2021 in conjunction with other approved or planned rate changes for 2021.

REF: Exhibit C, Tab 1, Schedule 1, page 8

Preamble: EGI evidence states: *“Enbridge Gas is committed to ensuring the proper governance structure and management oversight to enable the Company to invest capital in the most efficient and effective way to meet the Company’s obligations, ensure safety, and maximize the value of investments.”*

We would like to understand better this statement as it pertains shareholder return and ratepayer impact.

- 5) Please provide the definition of “maximizing the value of investments”.
- a) What is the expected outcome of the maximization i.e., lower ratepayer costs, higher shareholder profit, etc.?
 - b) What is the “maximize the value” mandate from the governance structure to those in management who oversee the capital programs?
 - c) How is that mandate incorporated into the capital program?
 - d) What financial incentives are in place for management to maximize rate base?

REF: Exhibit C, Tab 1, Schedule 1, page 9-10

Preamble: EGI evidence states: *“In addition, Enbridge Gas owns and operates approximately 312.7 PJ underground gas storage facilities (199.4 PJ regulated & about 113.3 PJ unregulated)...*

- 6) Please confirm that while the price of storage services from **non-utility** storage is not regulated, the **non-utility** is regulated.

REF: Exhibit C, Tab 1, Schedule 1, page 28-31

Preamble: We would like to understand better the approach to economic analysis and discounted cash flow (DCF) as it pertains to System Renewal.

- 7) Please provide a detailed description of the economic analysis that underpins the Capital Budgeting and LRP Process.
 - a) Please ensure the description provides the company's approach to decision making on maintaining, renewing or refurbishing vs. replacement of assets.
 - i) Please include how the company approaches factors such as costs to extend life, risk of failure, probability, safety, etc.
 - ii) Please describe how the analysis incorporates ratepayer impact.

REF: Exhibit C, Tab 1, Schedule 1, page 39, paragraph 76 and page 51, paragraph 94

Preamble: EGI evidence states: *"In developing the asset management plan, Enbridge Gas considers ongoing O&M expenses and capital investments. In many cases it may be possible to continue to spend O&M dollars to extend an asset's useful life. However, as the condition of the asset degrades over time, O&M expenditures increase to the point that there is no economic benefit to continuing to operate the asset and renewal investment becomes the preferred option.*

...

Enbridge Gas uses a Risk Management Process that is consistent with ISO 31000. A variety of Risk Assessment techniques are used that are appropriate to the decision that is to be made, the quality of information that is available, the immediacy of the need, and the nature of the risk. In many cases the risk assessment is progressive, starting with a relatively quick qualitative assessment which can evolve to a more quantitative assessment if there are multiple treatments to be considered."

We would like to understand how this approach works practically using two actual projects.

- 8) Please file the engineering/economic assessment for the Kirkland Lake Lateral Replacement.
 - a) Please ensure the actual and forecast O&M spends are included and categorized (cathodic protection, leak detection and repair, aerial monitoring, etc.).
 - b) Please ensure all qualitative and quantitative assessments are included.
- 9) Please file the engineering/economic assessment for the London Lines Replacement.
 - a) Please ensure the actual and forecast O&M spends are included and categorized (cathodic protection, leak detection and repair, aerial monitoring, etc.).
 - b) Please ensure all qualitative and quantitative assessments are included.

REF: Exhibit C, Tab 1, Schedule 1, page 58

Preamble: EGI evidence includes the 2021 Dawn Parkway Expansion Project (Kirkwall-Hamilton NPS 48) as a System Service Investment with an In Service Date of 2022.

We would like to understand what demand forecast contributed to the timing for In Service of 2022.

10) Please provide the demand forecast that drove this timing.

- a) Please confirm that Enbridge currently has an Open Season in progress for Dawn Parkway capacity starting in 2023.
- b) Please file the Open Season package.
- c) Please reconcile the start date for capacity available in the Open Season with the In Service Date of 2022 for the Kirkwall – Hamilton expansion.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 19 and 45

Preamble: EGI evidence states: *“The amalgamation of the legacy utilities included alignment of roles across both organizations. A new asset management reporting structure was set up with asset manager roles aligned to new processes, asset class hierarchies, governance roles and functional department support. A matrix approach to asset management enables the coordinated activity of defining an optimized and approved portfolio of work.”*

We would like to understand this structure and incentives aligned with the strategy.

11) Please provide an organizational chart showing the new asset management reporting structure.

- a) Please indicate who has decision-making authority for investment decisions.
- b) Please provide the financial incentive metrics that are included in compensation for those with decision-making authority.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 24

Preamble: EGI evidence states: *“Customer stations assets are inspected through field condition survey assessments to identify the existence of boot style regulators...”*

We would like to understand the issue with boot style regulators.

12) What is the issue with boot style regulators?

- a) When was the issue discovered?
- b) What is EGI's approach to a station when it is determined to have boot style regulators?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 24

Preamble: We would like to understand better the Utilization Condition and Strategy Overview for the Measurement Systems.

- 13) What type of meter(s) are involved in the category that refers 200, 400 and >400?
- a) What is the failure modality of these meters and how is it predicted?
 - b) What is the “financial opportunity to remove group of meters that have been sampled multiple times”.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 26

We would like to understand better the implications of the issues addressed under the heading of Underground/Below Ground/Internal Piping Systems.

- 14) Please provide EGI’s report assessing this issue.
- a) What are EGI’s obligations in reporting issues or risks identified on customer-owned piping?
 - b) What proactive steps has EGI encouraged for customers with customer-owned piping?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 32 and page 65

Preamble: EGI evidence states: *“To optimize the 1,251 Union rate zone and 863 EGD rate zone investments, the asset investment planning tool (C55) was used. The capital constraint values were used to set an overall constraint and the optimal capital timing was determined for proposed investments.*

...

“With value framework and solution planning work complete, portfolio optimization is performed in C55, creating a work plan that optimizes the timing and solutions of all capital projects to maximize the total value of the portfolio. Investments across the entire organization are optimized to determine the highest total value that can be achieved with constraints on annual net direct capital and with available resources.”

We would like to understand the determination of the capital constraints input into the model and the optimization process for highest total value.

- 15) Please describe the process for determination of the overall constraint and provide the values used for each of the components in the determination.
- a) Please define the highest total value (greatest amount of capital employed, greatest percentage of ICM availability, highest opportunity for return, etc.).
 - b) Please describe the process for optimization to the highest total value and contributing values for each year.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 32, Figure 1.9-1

We would like to understand what ICM Compression Station work is scheduled for 2022 in the EGD Rate Zone.

16) Please provide a description of the work, the cost estimate, and its eligibility for ICM.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 37

We would like to understand the criteria for “in-flight”.

17) Is the model set to finish investment once started?

- a) How does the model handle new information that may arise as preliminary engineering, environmental or other assessments yield information that point to a superior solution?
- i) What updates and iterative approaches are in place to ensure that the company is not spending “good money after bad”?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 42

Preamble: EGI evidence states: “***Replacing Pipelines and Equipment (in general):*** Over half of residential customers (58%) prefer to spread costs evenly over time, even if that means higher rates now. Preferences among business customers are similar to residential customers. Contract business customers are slightly more likely to prefer to spread costs evenly over time.”

We would like to understand how customers were informed to provide this preference.

18) Please provide the base survey questions and what information customers were provided to inform their responses.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 45

Preamble: EGI evidence states: “***Strategy and Planning:*** the governance framework used to align Asset Management Plans and decision-making within the enterprise’s overall strategic objectives at the lowest total cost of ownership”

19) Please describe how the lowest total cost of ownership is incorporated.

- a) Please describe how this criterion interacts with “highest total value that can be achieved” described in question 15.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 56, Table 4.1-1

Preamble: We would like to understand how the Renew/Retire decision involves the “Determine probability and consequence of failure to inform renewal decisions work”

- 20) Please provide the documents that contribute this portion of the analysis to:
- a) The Kirkland Lake Lateral Replacement
 - b) The London Lines Replacement

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 60, Section 4.1.5

Preamble: In reviewing the referenced section, we did not see how the impact of rates was incorporated into the Asset Management Decision-making.

- 21) Please provide the company documentation that speaks to how impact on customer rates is incorporated into the Asset Management Decision-making.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 62, Figure 4.2-2

- 22) Please provide the criteria that allows an “Out of Plan Project” to by-pass the Investment Planning process.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 67

Preamble: EGI evidence states: “*Prescriptive analytics helps advise on possible outcomes and to answer the question “What should we do?”. An example is the use of C55 to prescribe and optimize asset investment planning for the next five years.*”

We would like to understand the prescriptive analytics process,

- 23) Please define what criteria is being optimized.
- a) What parameters are input, set or controlled?
 - b) What parameters are dependent type variables that are determined or calculated?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 92, Table 5.2-2 and pages 115-116

- 24) Please provide the correct number of copper risers.
- a) How many copper services and risers have been removed from EGD Rate Zone in each of the last 5 years?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 243. Table 5.8-3

Preamble: The footnote to the above referenced table states: “*Copperleaf C55 is not listed as it is managed by Corporate Services*”.

25) Please define if Corporate Services refers to EGI or Enbridge Inc.

- a) Please describe Corporate Services’ role in matrixed organization responsible for Asset Management Decision-making.
 - i) To whom does Corporate Services report?
 - ii) What inputs do Corporate Services control and what inputs do other parts of the organization control?

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 252, Section 6.1.2

Preamble: We would like to understand the process of Capital Considerations and their impact on customer rates.

- 26) Is the practical effect of using the ICM Threshold as the Capital Constraint pre-disposing the model to create the highest rate impact albeit smoothed for customers?
- a) If not, please describe interventions that occur in the model and in selecting the inputs that result in prudent investments in the deferral of large projects.
 - b) Please specify how EGI creates a balance between ratepayers’ interests and the optimized value of the portfolio of projects.

REF: Exhibit C, Tab 2, Sch 1 EGI AMP 2021-25 Appendix Inv Codes 102128 & 49607
And EB-2020-0192 Exhibit I.FRPO.6 and FRPO.7

Preamble: We are interested in understanding the output reports by using two upcoming replacement projects Kirkland Lake Lateral and London Lines and factors associated with prioritization.

27) For the Kirkland Lake Lateral, please provide a description of each of the Value Function Measures and provide its numerical determination.

- a) How is Value in Percentage utilized?
 - i) Please describe how the absolute value of cost, avoided costs and total investment costs are summed to provide a denominator for the purposes of a percentage.
 - ii) What is the utility of the percentage and how is that metric used?

28) For the London Lines, please provide a description of each of the Value Function Measures and provide its numerical determination.

- a) Specifically given the relatively low Operational and Financial Risks and very high negative Total, how and why was this project prioritized to 2021.

Preamble: In the above reference to the LTC proceeding for the London Lines:

- 29) For the London Lines project, with the minimum inlet currently required at the Komoka station (please specify) and the forecasted 2021 design day loads on the London Lines system, please confirm the surplus capacity available at the Komoka Station is 4240 m³/hr.
- a) If not confirmed, please provide surplus capacity and explain the difference.
- 30) Using the proposed replacement sizing and an input pressure of 3380 kPa to the system and a minimum inlet of 2347 kPa at the Komoka station, please confirm that the surplus capacity is 5500 m³/hr.
- a) If not confirmed, please provide surplus capacity and explain the difference.
- b) If the above two surplus capacities are correct, does this analysis confirm additional capacity is being added to the system with the replacement?
- i) If not, please explain why this increase is not so.

REF: Exhibit C, Tab 2, Schedule 1 EGI Asset Management Plan, page 106

Preamble: EGI evidence states: *“The London Lines span approximately 83.5 kilometres and extend from Dawn to the Byron transmission station located in the London District”.*

In the process of submissions in the EB-2020-0192 London Lines LTC proceeding, it was confirmed by EGI that the connection between the Komoka Station and the Byron Transmission Station was abandoned. This connection provided the only back-feed in the system primarily fed from Dawn.

- 31) Please provide the internal company reports, memos and authorizations that lead to the abandonments which disconnected the London Lines from Byron.
- a) Please provide the specific dates of the physical abandonment(s).
- b) Please ensure that this information includes implications to the current system and impacts on the proposed replacement design.
- c) Please provide the cost that was estimated to renew those connections in a manner that could extend the life of the assets.
- d) Please provide the output from the C55 model if the previously existing connections were maintained including the costs to extend the life of the Komoka to Byron assets.