REF: Exhibit A, Tab 2, Schedule 2, pg. 6

Preamble: *It is an integral part of the natural gas network that supplies, directly or indirectly, natural gas to approximately 168,000 customers in the City of Ottawa and in Gatineau, Quebec.*[7]

[7] *The St. Laurent Pipeline is a primary source of gas supply for Gazifere.*

1) Does Gazifere have any programs designed to reduce gas use? Please describe.
   a) In any event, please provide the forecasted contract demand for Gazifere. How much of that contracted demand goes through the Rockcliffe Control station?

REF: Exhibit A, Tab 2, Schedule 1, Attachment 1 and Exhibit B, Tab 1, Schedule 1, pg. 3-4

Preamble: *The St. Laurent Pipeline (SLP) system is comprised of 10.8 km of NPS 12 steel pipe and 0.4 km of NPS 16 steel pipe. The pipeline was primarily constructed between 1958 and 1959 with coated steel pipe with the following specifications:*

i. Wall Thickness = 6.35 mm and 9.5 mm

We would like to understand the location and length of these respective wall thicknesses.

2) Using a map of similar scale to the first reference and colour for clarity, please show:
   a) The location of different pipe diameters (as provided in Figure 1)
   b) The location of the different wall thicknesses
      i) Please provide the length of the respective sections of wall thicknesses

Preamble: *Due to the increase in demand from new and existing customers fed by this pipeline, a pressure elevation was completed in 1985 to increase the pressure of the pipeline to 1,900 kPa (275 psi) based on Clause 9.13 of the 1983 edition of CSA Z184 Gas Pipeline Systems standard (CSA Z184-M1983). This clause permits the increase of a pipeline's Maximum Operating Pressure (MOP) to 80% of its design pressure, as opposed to relying on an established pressure test.*

We would like to understand this pressure elevation process.

3) What infrastructure components (pipe, valves, fittings, etc.) were removed and what were they replaced by?

4) Please clarify how the 80% was applied to establish the Maximum Operating Pressure (MOP).
   a) What test pressure was used?
   b) Is the MOP 1900 kPa or 1724 kPa?
      i) If deemed to be 1724 kPa, what is inhibiting the pressure to that level?
      ii) What components would need to be replaced to increase the MOP to 1900 kPa?

REF: Exhibit B, Tab 1, Schedule 1, pg. 6-11 including Table 1-2 and Figures 1, 2

Preamble: We would like to understand the limitations of the respective Inspections and Surveys listed in Table 1.

5) For each Inspection or Survey, please provide:
   a) The limitation and location on the respective figures that inhibited expanding the application to a broader section of pipeline.
      i) Please show locations of respective limitations on a map

6) What was the cost of each respective inspection or survey?

Preamble: *Based on the ILI data, the calculated third-party interference hazard rate is within the highest 13% of hazard rates for mains within the Enbridge Gas distribution system*.

7) Please provide the background tables and information that led to the quantification in the above quoted reference.

REF: Exhibit B, Tab 1, Schedule 1, Appendix B

Preamble: We would like to understand better the quantifications of risk included in this section of evidence.

8) In Table 1, EGI provides an estimated Failure Rate (per km.yr). For Selective Seam Weld Corrosion (SSWC), please confirm that the estimated risk of 1.1 E-6 is representative of a risk of failure of 1.1 out of a million per km.yr).
   a) If not confirmed, please provide the estimated risk in terms of probability.
   b) What considerations went into the estimation and how were they quantified?
      i) Please provide each of the considerations, the quantifications and how they were determined differentially between before and after.

9) Using the LLS and ULS from Figure 1, please provide the safety level of St. Laurent reliability and the length of pipe in each level:
   a) With what was determined through assessments and diagnostics described in Exhibit B specifically before the repairs were undertaken.
   b) After the repairs were completed.

10) Using the Operation Risk Matrix in Figure 2, please provide the Financial, Operational Disruption and Health and Safety Risk level:
    a) With what was determined through assessments and diagnostics described in Exhibit B specifically before the repairs were undertaken.
    b) After the repairs were completed.
    c) Please provide examples for each of the evaluation methods showing the quantification of risk levels as depicted before and after the repairs.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 2, pg. 16 and Appendix D

Preamble: Figure 2.5 depicts a considerable bias between the ILI and Field Measurements. We would like to understand how this information was used in assessment of the pipeline.

11) Appendix D seems to present an adjustment to the ILI measurements to bring them into an adjusted tolerance. Please clarify the purposes of Appendix D.
    a) Given the above answer on adjustments in Appendix D, what measurements were used to develop the risk assessment estimated from the ILI measurements.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 2, pg. 18

Preamble: *This pipeline has observed one corrosion leak failure over the past 15 years of failure record history over its length (11.2km).*

We would like to compare that frequency with recent replacement projects.

12) Please provide the number of corrosion leaks found over the 15 years prior to the LTC replacement applications and the total length of the pipeline for:
    a) The Windsor line
    b) The London lines

13) Please identify any and all measures undertaken to enhance leak detection since 2020.
    a) Please provide the cost of those measures for each year.
    b) Please provide the cost to repair, sleeve or replace these leaks for each of the years since 2020.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 2, pg.46-47 and Attachment 1

Preamble: Under the category ***Highway Operations:*** *A leak and subsequent emergency repair on the St. Laurent pipeline would cause a severe disruption to the traffic flow in this area as any roadway would need to be shut down to access the pipeline…*

Based on the above vehicle volume statistics on the adjacent roadways to St. Laurent, any failure would result in significant disruption to the vehicle traffic and access to residential areas, schools, retail, and commercial buildings.

We would like to understand this claim.

14) For the detection and repair described in Attachment 1, please provide:
   a) The duration of time that traffic was stopped:
      i) On any lane of Highway 417
      ii) On the off-ramp proximate to the pipe being replaced

15) Has the replacement of this section of pipe been removed from all baseline analysis of continued risk of the St. Laurent pipeline project.
   a) Please explain fully.

REF: Exhibit B, Tab 1, Schedule 1, Attachment 2, pg. 66

Preamble: *Lastly, a sensitivity analysis was completed to determine the impact various input or key assumptions would have to the results of the three approaches in which the pipelines condition was evaluated against absolute thresholds. The results of the sensitivity analysis showed that the recommendation made will not substantially change by applying unconservative assumptions/inputs into the various models.*

16) Please file the sensitivity analysis.

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

Preamble: EGI evidence provides a memo from DNV that includes a conclusion of:
DNV agrees with the Enbridge conclusion that additional remedial action to improve the reliability of 8.8 km of the pipeline should be considered.

And a recommendation of:
Additional detailed risk assessment is not considered necessary at this time or to significantly alter the risk categorization. Detailed risk evaluation may be conducted in future if risk prioritization is needed to guide priority of remedial actions; however, this may require more detailed consequence estimation than currently evaluated.

We would request answers from DNV on the following questions:

17) Based upon DNV's assessment, please a prioritized list of recommended remedial actions that could improve the reliability of the 8.8 km of pipeline that should be considered.

18) From the recommendation quoted above, what eventualities was DNV considering that may prompt further risk prioritization in the future.
   a) Please elaborate on the "more detailed consequence estimation than currently evaluated" with some specific steps that could be undertaken.

We would request from EGI the following:

19) Please identify the 8.8 km referred to by plotting on a map.

20) Please provide a description of any or all enhancements to cathodic protection on the pipeline undertaken since 2020.
   a) Please specify what was done.
   b) The location applied
   c) Pipe to soil readings before and after the enhancement was implemented.

REF: Exhibit B, Tab 3, Schedule 1, Attachment 1. pg.16 and
https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/heat-pumps-uptake-glance/26081

Preamble: The first reference shows NRCan statistics presenting a very modest growth in heat pump adoption in the years 2016 to 2020 to extrapolate a 2024 rate of 8%. The second reference provides their actual provincial statistic of 64,055 heat pumps by 2024.

21) Please reconcile the extrapolation with the actual data.

REF: Exhibit C, Tab 1, Schedule 1 and EB-2020-0293 Exhibit I.ED.16 & I.FRPO.2

Preamble: We would like to understand the current conditions in the Ottawa HP system. From the map found in ED.16 referenced above, we are interested in the network that runs North and between from Rideau Heights and Ottawa North Gate through to the two pipelines that cross the Ottawa River into Gatineau.

22)Please provide a map for those pipelines showing the MOP of each of the pipelines.

23) Please present the network analysis results for this system for the Winter of 2023/24 providing:
a) Inlet pressures to all of the stations noted in FRPO.2 and Rockcliffe Control station
b) The flow in the pipe between the respective stations
c) The flow in the pipe between Hurdman station and St. Laurent pipeline.

24)Please provide the network analysis results with the proposed piping substituting for the existing pipeline providing:
a) Inlet pressures to all of the stations noted in FRPO.2 and Rockcliffe Control station
b) The flow in the pipe between the respective stations
c) The flow in the pipe between Hurdman station and St. Laurent pipeline.

25)Please provide the network analysis results with the proposed piping except NPS 12 instead of NPS 16 substituting for the existing pipeline providing:
a) Inlet pressures to all of the stations noted in FRPO.2 and Rockcliffe Control station
b) The flow in the pipe between the respective stations
c) The flow in the pipe between Hurdman station and St. Laurent pipeline.

REF: Exhibit C, Tab 1, Schedule 1, pg.14-19 , Tables 4-7

Preamble: We are interested in understanding the costs and assumptions that went into the above referenced evidence and tables.

26) Please provide a comprehensive breakdown of costs that contribute to Alternative B including:
a) Costs of each annual diagnostic
b) Assumed costs of mitigation
c) Assumptions of cost reductions which come from moving up the learning curve.

REF: EB-2020-0293 Exhibit I.FRPO.3

Preamble: In the last proceeding, we asked about the analysis to consider eventuality of a break that included steps of mitigation*: Steps to mitigate customer loss e.g., increase other feeder stations set pressure, interrupting interruptible customers, shedding Emergency Control Areas, etc.* Instead EGI went back to the original catastrophic failure scenario.

27) Please specify the location of the break assumed to answer FRPO.3

28) Please assume the break is between the St. Laurent Control station and the pipeline connection that comes from Hurdman & Carling station and is mitigated by closing the isolating valve between St. Laurent Control and the pipeline connection.
   a) Please answer the questions in FRPO.3 assuming a break that allows time for the above step of mitigation.
      i) For a 47HDD day
      ii) For a 27 HDD day (average January day)
   b) The pertinent questions from FRPO.3 include:
      i) What is the cost for each scenario?
      ii) What steps are taken to mitigate customer loss e.g., increase other feeder stations set pressure, interrupting interruptible customers, shedding Emergency Control Areas, etc.
      iii) iii) Assumptions regarding the type of repair and the determination of that cost
      iv) The determination of customers lost in Gazifere territory.
      v) The cost of make safe and relight.

REF: Exhibit D, Tab 1, Schedule 1, pg.1-9

Preamble: We would like to understand more about cost mitigations associated with the alternatives discussed in this section, especially Station work at Industrial Dr. to feed TransAlta and, potentially, more.

29) Please provide the best cost estimates available at this time for these alternative approaches.

REF: Exhibit C, Tab 1, Schedule 1, pg.14-19 , Tables 4-7 & Exhibit E, Tab 1, Schedule 1

Preamble: We would like to understand the cost estimate in Exhibit E as compared to the total cost and NPV in Exhibit C

30) Please show a reconciliation of the respective total costs.