ISSUE 2: Project Alternatives

REF: Exhibit M, pg. 3

Preamble: EGI evidence states: *"Based on Enbridge Gas's design day modeling for the pipelines proposed to be replaced by the Project, peak design day demand is 139,800 m3/h. Current capacity of the pipelines proposed to be replaced by the Project is 157,900 m3/h. Future capacity of the proposed pipelines is projected to be 155,300 m3/h. Enbridge Gas models capacities of the St. Laurent pipeline system as a whole for the purposes of determining peak design demand...*

...Using the best-case scenario of removing load from the end of the network/system, a reduction 32,500 m3/h is required to downsize the NPS 16 portion to NPS 12.."

We would like to understand more about the analysis that determined these values. For the interrogatories below, we refer to station inlet pressures collectively for the stations described in Table 1 & 2 of Exhibit I.FRPO.2 AND additionally the Rockcliffe Control Station.

28) In the determination of the current capacity above, please file the analyst report, simulation documentation and other internal reporting that informed the above figures in the evidence. If not answered in this documentation, please provide the following:

a) Is the current peak day demand and current capacity for Winter of 2021/22?
   i) If not, please provide the station inlet pressures for the design day peak hour of 139,800 m3/hr.

b) Please provide a map showing the locations of the stations including THE Rockcliffe Control station.

c) Please provide the inlet pressures for the stations when the current pipelines have a peak hour demand of 157,900 m3/hr?

d) Please confirm that there is no physical limitation (beyond system demands) to flow gas from the Rideau Heights station to the St. Laurent Line.
   i) If there is any physical limitation, please provide the cost to eliminate the limitation.
   ii) If there is no physical limitation, what was the outlet pressure of Rideau Heights station for the above simulations?

(1) If not 275 psig, please re-run the simulations using at 275 psig outlet pressure at Rideau Heights and provide the inlet pressures for the Table 2 stations and the resulting capacity.

e) What are the control point and conditions that EGI uses to define the limit of 157,900 m3/hr as capacity (i.e., what and where is the pressure constraint and where is the additional hourly demand added to reach that capacity and pressure)?

i) If the pressure constraint is the required pressure for capacity through a station:

(1) What station provides the constraint?

(2) Please provide the cost to upgrade the station to eliminate the constraint and provide the resulting incremental capacity.

(3) With station upgraded to allow lower inlet pressure, what is the next constraint and resulting capacity?

29) Using the simulation that derived the capacity of 155,000 m3/hr for the proposed system, please provide the resulting pressures at the stations in Table 2.

a) Please re-run the simulation with Rideau Heights set at 275 psig and provide the resulting Table 2 pressures and the resulting capacity.

b) Please re-run the simulation with Rideau Heights set at 275 psig and with the NPS 16 proposed section reduced to NPS 12 and provide the resulting pressures at the stations in Table 2 and the resulting capacity (NB. Please provide the results even if the station inlet pressures drop below the constraints shown in Table 1 and/or capacity is 0).

c) With the NPS 16 reduced to NPS 12, what is the reduction in hourly demand required at the Rockcliffe control station to maintain contracted pressure of 175 psi?

i) Please provide the inlet pressure to the Rockcliffe Control point to maintain 175 psi?

ii) What would the cost be to install control valves that reduce/minimize the inlet pressure required?

30) For the contractual obligations to Gazifere:

a) Please confirm that there is an NPS 16 from the Rockcliffe Control point to the delivery point in Gazifere territory.

b) Where is the custody transfer point?

i) Please confirm that is location where the minimum pressure requirement must be met.

c) What was the peak hourly volume assumed to be moving through the Rockcliffe Control station for the base simulation for the peak day capacity of 139,800 m3/hr?

d) Did EGI explore with Gazifere if that amount could be reduced by 16, 000 to 32,000 m3/hr?

i) Please provide the correspondence (letter, email, etc.) for the inquiry and response?

e) For the scenario that includes the peak day, how much flow was assumed to move through the second, more easterly feed to Gazifere?

i) Please provide the actual peak hour flow through both feeds (i.e., Rockcliffe and east feed) and the actual hourly flow that went through each for each of the last 3 years.

f) What is the design capacity of the easterly crossing?

i) What is the constraint that limits the capacity?

ii) What would be cost to increase the flow through that crossing to allow a reduction in the Rockcliffe crossing?

REF: Exhibit M, pg. 7-8

Preamble: EGI evidence states: *"Finally, the potential demand reductions cited, if realized: …*

(iv) in no way mitigate the increasing probability of critical system failure or the severity of consequences, including risks to public health and safety, resulting from the ongoing deterioration of the St. Laurent pipeline system.

We would like to understand what alternatives are available to reduce the possibility of failure and mitigate the on-going deterioration.

31) Has EGI studied or analyzed the possibility of adding or enhancing cathodic protection measures?

a) If so, what measures have been considered and what are the costs?

b) If not, why not?

32) Has EGI attempted to use in-line inspection to find discontinuities associated compression couplings as a manner of locating the couplings? Please explain.

33) What other enhancements or improvements has EGI undertaken to reduce the risks and mitigate deterioration?