EB-2016-0186

ONTARIO ENERGY BOARD

Union Gas Limited

Application for approval to construct a natural gas pipeline in the Township of Dawn Euphemia, the Township of St. Clair and the Municipality of Chatham-Kent and approval to recover the costs of the pipeline

INTERROGATORIES TO UNION GAS LIMITED (Union)

From

INDUSTRIAL GAS USERS ASSOCIATION (IGUA)

1. **Issue 1 (Need)**

Reference: ExA/T3/p2, lines 11-18; ExA/T4/p2, lines 2-6; ExA/T5/p4, lines 1-3; ExA/T5/p4.

The evidence refers to significant recent, and expected, demand growth in markets served by the Panhandle System, particularly from greenhouses, and including requests for firm service from currently interruptible customers. Union is forecasting that, without reinforcement, operational requirements of the Panhandle System will not be met for the winter 2017/18.

(a) Please provide a map of the Union South service area that illustrates which portion of that service area is served by the Panhandle System.

(b) Please populate a table with the following data for all of the Union South rate classes:

Rate Class	# customers served by Panhandle System	Volumes served by Panhandle System	# customers not served by Panhandle System	Volumes not served by Panhandle System

(c) What are the benefits anticipated from the project for customers in Union South not served by the Panhandle system?

(d) Please provide the number and length of interruptible customer service interruptions in each of the past 5 years (ending in 2015/16) in the area served by the Panhandle System.

(e) Please provide Union's estimate of the *"cost of alternate fuel required during an interruption"* as referenced in the evidence, in aggregate for each of the past 5 years.

(f) Please provide the current number of in-franchise customers in the area served by the Panhandle System, by category as follows (please consider these categories as mutually exclusive):

Customer Type	**# Customers**	**# Customers with Interruptible Volumes**	**Total Firm Volumes**	**Total Interruptible Volumes**
Residential				
Greenhouse/Agricultural				
Other Commercial				
Small Industrial (<25 million m^3/year)				
Large Industrial (>25 million m^3/year) not Power Gen				
Power Gen				

(g) Please provide the total in-franchise volumes in the area served by the Panhandle System in 2015/16, by customer category as in response to part (f), for customers who are currently interruptible but are seeking firm service. [ExA/T5/p4; ExA/T5/p7, lines 8-10].

(h) Please provide the number of C1 and M16 customers, and their respective (aggregate) demand and volumes in 2015 served by the Panhandle system.

(i) The evidence indicates that without facility changes, *"operational requirements of the Panhandle System will not be met for the Winter of*

2017/18". Please explain the anticipated operational consequences should facilities not be changed, for both in-franchise and ex-franchise customers.

(j) Please provide the forecast number of in-franchise customers and associated customer volumes in 5, 10 and 15 years for the area served by the Panhandle System, using the same customer categories as in response to part (f) (but not disaggregated into firm and interruptible).

2. **Issue 1 (Need)**

Reference: ExA/T6/p2.

The evidence on alternatives considered indicates that the project need is for 106 TJ/d of incremental capacity, to address forecast growth through 2021.

Reference: ExA/T8/p10, line 8.

2,739 10^3m^3 of capacity is to be created by the project.

(a) Please provide the amount of capacity in Tj/d to be created by the project, and specify the appropriate conversion factor for conversion of capacity measurements between Tj and 10^3m^3.

(b) Assuming that the project proceeds as currently planned;

(i) How much excess capacity will be provided at the time the project goes into service?

(ii) Please confirm that Union anticipates having to further expand the Panhandle System by 2022 [ExA/T6/p13, Table 6-1].

3. **Issue 1 (Need)**

Reference: ExA/T4/p4, lines 5-20; ExA/T5/p2; ExA/T5/p16.

Union serves approximately 60 TJ/d of Panhandle System demand with gas flowing east from Ojibway. Union assumes these flows in its design day calculations for the system. The evidence indicates that Union has been able to defer reinforcement of the system based on these flows.

Union also provides C1 transportation services, on a firm "as requested" basis from Ojibway to Dawn. Union assumes in its design day calculations that these volumes do not flow.

Reference: ExA/T5/p5, lines 1-4.

Union indicates that it has been able to manage physical interruptions based on C1 Ojibway to Dawn transportation activity.

(a) If Union could rely on its current C1 volumes as well as its current system volumes flowing from Ojibway east in its design day calculations for the project;

  (i) Would there be an impact on project size/costs?

  (ii) Could there be an impact on project timing (i.e. could the project be deferred)?

(b) Please describe Union's M16 contracts which utilize the Panhandle System (i.e. what types of customers use this service, what demand volume is contracted, how and when do those volumes flow). Could these volumes have an impact on project cost or timing if they were assumed to be flowing on design day?

4. **Issue 3 (Rate Impacts)**

Reference: ExA/T3/p9/lines 16-20.

Union is proposing to <u>not</u> allocate any portion of the project costs to Rate C1 and Rate M16 customers during the remainder of the current incentive regulation plan term, on the basis that this *"better reflects how ex-franchise Rate C1 and Rate M16 customer[s] use the Panhandle System on design day"*.

Reference: ExA/T3/p10/lines 4-7.

The evidence reflects an increase in costs allocated to ex-franchise rate classes of approximately $0.4 million.

(a) If Union proposes not to allocate any portion of the project costs to Rates C1 and M16, then please indicate who will bear the $0.4 million in costs allocated to ex-franchise rate classes.

(b) Please confirm that both C1 and M16 customers have in fact utilized the Panhandle System on peak demand days, and will continue to have the ability to do so.

5. **Issue 3 (Rate Impacts)**

Reference: ExA/T3/pp5 – 8.

The evidence cites a risk to the return of capital invested in natural gas infrastructure as a result of the Ontario government's 5-year (2016-2020) Climate Change Action Plan.

Reference: ExA/T5/p11, line 13, et seq.

The evidence presents a 20 year Panhandle Growth Forecast (2015-2034).

Reference: ExA/T6/pp12-13.

Union assumes a subsequent 99 Tj/d need for expansion (in the 2021-2035 period) in assessing the project against alternatives.

Reference: ExA/T5/p20, lines 1-6.

The evidence refers to the potential for CNG refuelling stations along the 401 into Windsor.

Reference: ExA/T5/p15, lines 14-17.

The evidence refers to the potential for customer migration to natural gas from more carbon intensive fuels.

(a) What adjustments, if any, were made to the 20 year Panhandle Growth Forecast (2015-2034) in consideration of Ontario's climate change/environmental policies?

(b) Please detail the risk perceived by Union related to the capacity to be added to the Panhandle System by the current project in particular, in consideration of the nature of the load to be served by the proposed facilities, the specific timing for connection of that load, and Union's assumption of a further expansion need by 2022.

(c) What is Union's assessment of the potential for current and future Panhandle served customers to switch off of gas service, once connected to the system?

(d) Please describe Union's ongoing initiative to assess and deploy the distribution of renewable natural gas through its existing distribution system. Please include;

    (i) details on government or other external funding committed to this work; and

(ii) Union's current assessment of the likelihood of success on this initiative and timing for its implementation.

(e) Will Union proceed with the project if the Board approves the project, but allows only a conventional (approximately 50 years) depreciation period for the project?

6. **Issue 3 (Rates)**

Reference: ExA/T3/p4/lines 1-10.

Union's evidence cites various economic and customer benefits of the provision of (more) natural gas to the project area.

(a) Has Union done any analysis of the project specific economic and customer benefits? If so, please provide any resulting materials.

(b) Has Union done any analysis of the potential project specific economic costs and customer dis-benefits from the rate increases that would result from the project? If so, please provide any resulting materials.

7. **Issue 3 (Rate Impacts)**

Reference: ExA/T3/p7/lines 9-11.

The evidence refers to a weighted average useful life of approximately 50 years for the project, based on Board-approved depreciation rates.

(a) Please provide a table which lists the following details of Union's calculation of the approximately 50 year depreciation life for the project;

(i) the constituent asset components for the project;

(ii) the depreciation useful life used in Union's calculation for each constituent asset component listed;

(iii) Union's expectation for the actual (physical) useful life of each constituent asset component;

(iv) the current physical (as distinct from accounting) age (a range would be fine) for the same or substantially similar asset components currently in use elsewhere on Union's system.

(b) Please indicate what portion of Union's regulated assets are currently fully depreciated and remain in physical service.

8. **Issue 3 (Rate Impacts)**

Reference: ExA/T8/p7, lines 1-6; ExA/T8/p8, lines 2-7.

The evidence distinguishes between the Panhandle System and the St. Clair System, in proposing to allocate costs based on design day demand for the former only.

(a) Please provide a map which illustrates the two systems.

(b) Please describes how each is used by Union's in-franchise and ex-franchise customers (and how that use is distinct).

9. **Issue 4 (Alternatives)**

Reference: ExA/T6.

The evidence discusses Union's consideration of alternatives to the project.

(a) Did Union's consideration that the project should be planned based on a 20 year expected useful life have any impact on consideration of alternatives? If so, what impact? If not, why not?

(b) Were there any alternatives to the project considered by Union and not discussed in the cited evidence? (If so, please provide further detail on these alternatives and why they were rejected.)

(c) Has Union considered "propane aeration" (the practice of mixing propane with air and injecting the resulting gas into the gas distribution system as a means of increasing the capacity of the Panhandle distribution system west of Dover? If not, why not? Would such an alternative be practical?

(d) Has Union considered building additional capacity from Detroit to Windsor to serve South-Western Ontario as an alternative to the Project? If not, why not? Would such an alternative be practical?

10. **Issue 4 (Alternatives)**

Reference: ExA/T6/p7, footnote 2.

The evidence indicates that:

- Union's import capability limit at Ojibway is 115 Tj/d.
- 21 TJ/d of that capability is subject to an existing renewable Ojibway to Dawn contract of 21 Tj/d held by a 3rd party.
- Union currently imports 60 Tj/d of supply at Ojibway for system gas customers.

Reference: ExA/T6/p9.

The evidence indicates that a total of 94 Tj/d of supply on PEPL to Ojibway (composed of the 60 Tj/d already contracted by Union at present plus an incremental 34 Tj/d) is under negotiation.

(a) Please confirm that the 39 Tj/d of capacity that Union holds a right of first refusal on is included in the 94 Tj/d that the evidence indicates is under discussion with PEPL.

(b) What is the current status of negotiations with PEPL, how much supply has been secured, and how much remains under discussion?

(c) What is the cause of the 115 Tj/d limit on Union's import capability at Ojibway?

(d) Is the 21 Tj/d of capacity held by a 3rd party as referred to in the evidence held under a C1 contract?

(e) Please confirm that there is an additional 34 Tj/d (115 – 21 – 60) of import physical capacity for Union at Ojibway.

(f) If Union maximized physical flows from Ojibway east on design day (i.e. physically and contractually secured the flow of 115 Tj);

  (i) Would there be an impact on project size/costs?

  (ii) Could there be an impact on project timing (i.e. could the project be deferred)?

(g) The evidence on alternatives [ExA/T6/pp11-12] describes a need for incremental Panhandle facilities even if imports from Ojibway were maximized. Are these incremental facilities required to incorporate incremental gas through Ojibway onto Union's system, or to provide the remaining capacity requirements that incremental Ojibway imports could not satisfy?

11. **Issue 4 (Alternatives)**

Reference: ExA/T5/p4.

The evidence discusses current interruptible demand on the Panhandle System, and relates that current interruptible customers, and new customers, are seeking firm service.

Reference: ExA/T5/p17.

The evidence describes the reverse open season held by Union prior to determining Panhandle System expansion requirements.

(a) Please provide the detailed parameters (conditions, delivery rate discounts relative to firm service, interruption limits, etc.) of the interruptible service offered by Union.

(b) What was the total discount provided by Union to interruptible customers (relative to firm service) in each of the past 5 years?

(c) Has Union considered any modifications to its interruptible service to make such service more valuable to its in-franchise customers?

12. **Issue 4 (Alternatives)**

Reference: ExA/T8/p15, lines 8-10.

The evidence describes the C1 demand flows on Design Day, if any, from Ojibway to Dawn.

Reference: ExA/T5/p5, lines 1-4.

The evidence describes how Union has been able to manage (i.e. limit) physical interruptions on the Panhandle system as a result of C1 Ojibway to Dawn transportation activity.

(a) Are there alternative paths available to move gas from St. Clair to Dawn, other than on Union's Panhandle system?

(b) Has Union considered contracting space on any such alternative paths, and moving C1 customers' gas on such alternative paths, and thus freeing up capacity at Ojibway into Union's franchise, as an alternative, in whole or in part, to the proposed project? If not, why not?

(c) Would such an alternative be practical, and if not, why not?

13. **Issue 4 (Alternatives)**

The Leamington area greenhouses have also been publicly advocating electricity system reinforcement to provide them with the ability to light their greenhouses and thus enhance their growing operations.

(a) How would the cost of heating Leamington area greenhouses with electricity compare to the cost of the Panhandle expansion proposed?

(b) How much carbon emission would be avoided if Leamington area greenhouses were electrically heated rather than gas heated?

(c) How much carbon emission will be avoided by heating Leamington area greenhouses with natural gas rather than propane or fuel oil?

(d) Has Union considered the cost of replacing Leamington area greenhouse heating systems with on-site photovoltaics or other alternative energy options, as compared to the cost of the proposed Panhandle expansion?

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