



uniongas

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May 22, 2012

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St., 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli:

**Re: EB-2011-0210 – Union Gas Limited
Interrogatories to TransCanada Pipelines**

Please find attached Union Gas Limited's ("Union") interrogatories on TransCanada Pipelines evidence filed May 16, 2012.

If you have any questions, please contact me at 519-436-5476.

Yours truly,

[original signed by Joanne Clark for]

Chris Ripley
Manager, Regulatory Applications

c.c.: All Intervenors of Record (EB-2011-0210)
C. Smith (Torys)

UNION GAS LIMITED
INTERROGATORIES ON TRANSCANADA PIPELINES WRITTEN EVIDENCE

1. *Reference:* TransCanada Written Evidence, Section 1, page 1, lines 19-25

Preamble: Union capacity is used by TransCanada as part of its integrated Mainline to provide services. TransCanada indicates that the cost of Union's services have a material impact on Mainline tolls and on Ontario gas consumer costs.

Question:

- a) Please list all of the TransCanada transportation contracts on the Union Gas system, including type of service, volume, receipt point, delivery point and contract expiry date.
- b)
 - i) Assuming a rate increase of \$0.02/GJ/d to Union's M12 Dawn-Parkway service and M12-X service, please provide the impact to TransCanada short haul and long haul rates in terms of percentage increase?
 - ii) Please explain in detail why the increases to short haul and long haul rates in b) i) above are material to the competitiveness of the TransCanada Mainline tolls?
 - iii) Please explain in detail how the increases to short haul and long haul rates in b) i) above are material to Ontario gas consumers, including gas consumers in Southwestern Ontario, Central Ontario, Northern Ontario, and Eastern Ontario.

2. *Reference:* TransCanada Written Evidence, Section 2, page 3, lines 4-6

Preamble: TransCanada states that Union did not explore LCU options that would use existing infrastructure.

Question:

Please confirm that Union's response in Exhibit J.B-1-1-7 b) includes the evaluation of alternatives that use existing infrastructure.

3. *Reference:* TransCanada Written Evidence, Section 2, page 3, lines 16-19

Preamble: TransCanada asserts that Union's own plans are uncertain and TransCanada is expanding and conducting further open seasons in southern Ontario.

Question:

- a) Please provide the result of all open seasons conducted in 2010, 2011 and 2012 that include transportation capacity in Ontario. For each open season, please provide the following:
 - a. A list of bids by Customer (can identify the customer as A,B,C, etc), identifying volume, receipt point, delivery point (or Delivery Area), start date and term.
 - b. For each bid, please identify the status as:
 - i. Customer dropped out of open season and is not using bid path (or similar path).
 - ii. Customer is flowing on path (or similar path) under new capacity.
 - iii. Customer is flowing on path (or similar path) with existing capacity.
 - iv. Customer has signed a Precedent Agreement and is waiting for service.
 - v. Customer has signed an FT contract and is awaiting service.
 - vi. None of the above.
- b) Please provide TransCanada's plans for expansion in Ontario as a result of each of those open seasons referenced in a) above.
- c) Please provide a copy of all presentations made to customers and potential customers regarding those open seasons and TransCanada expansion plans in Ontario.
- d) Please provide a copy of all internal presentations to senior management regarding TransCanada expansion plans in Ontario.

4. *Reference:* TransCanada Written Evidence, Section 2, page 3, lines 19-22

Preamble: TransCanada asserts that it has consulted and deliberated with Union throughout the development of the TransCanada and Union systems.

Question:

- a) Please provide a copy of all presentations made to Union regarding the TransCanada open seasons and expansion plans in Ontario referenced in Question 4 a) above.
- b) Please provide any other evidence of TransCanada's consultation and deliberation with Union on open seasons and expansion plans within Ontario referenced in Question 4 a) above.
- c) Please provide a copy of all presentations made to Union regarding alternatives to the Parkway West Project.

5. *Reference:* TransCanada Written Evidence, Section 3.1, page 5, lines 11-13

Preamble: TransCanada states its IT service is essentially firm due to under-contracting on the system.

Question:

- a) Please confirm that interruptible capacity on the TransCanada system is not treated as firm and can be interrupted.
 - b) What was the scheduled long haul flow the day that the Beardmore, Ontario outage occurred? What was the scheduled amount of long haul interruptible flow on that day? How much actual long haul flow occurred on that day? How much actual long haul interruptible flow occurred on that day? How much actual long haul interruptible flow occurred on the next day?
 - c) For each day during the period November 1 to March 31 in each of the years 2000-01, 2001-02, 2002-03, 2003-2004, 2004-05, 2005-2006, 2006-07, 2007-08, 2008-2009, 2009-10, 2010-11 and 2011-12, please provide for Empress to CDA and Empress to EDA the maximum amount of IT on each day that was i) available, ii) nominated and iii) flowed, based on each of the four NAESB nomination windows.
 - d) Please list all specific dates during these periods where less than 1 PJ was available to flow IT from Empress to Union CDA after i) all contracted FT, STFT and STS was accommodated and ii) all contracted FT, STFT and STS as well as nominated IT was accommodated.
 - e) Please list in a table the number of times each year for the last five years IT services into each of Union's Delivery areas of NDA, EDA and CDA have been curtailed?
6. *Reference:* i) TransCanada Written Evidence, Section 3.1, page 5, lines 11-13; ii) "TransCanada seeks switch from Gas to Oil", The Globe and Mail (<http://www.theglobeandmail.com/globe-investor/transcanada-seeks-switch-from-gas-to-oil/article2415779/>), 27 April 2012

Preamble: In reference i) TransCanada states its IT service is essentially firm due to under-contracting on the system; in reference ii) TransCanada acknowledges it is actively pursuing the concept of converting a portion of the Mainline's capacity to oil service.

Question:

- a) Please describe which of the Mainline and NOL pipelines would be converted to oil service.
- b) Please show a schematic of the TransCanada Mainline System showing each line and size of line following conversion of facilities to oil service.
- c) What is the earliest date that conversion to oil service could occur?
- d) Who will own the oil pipeline facilities after conversion to oil service?
- e) Assuming the largest pipeline on the NOL and the largest pipeline on the North Bay shortcut is converted to oil service, what is the capacity of the remaining system? Please specifically reference firm and interruptible capacity in the response.

- f) Assuming the smallest pipeline on the NOL and the smallest pipeline on the North Bay shortcut is converted to oil service, what is the capacity of the remaining system? Please specifically reference firm and interruptible capacity in the response.
- g) In each case of e) and f) above, what would be the capacity for transportation from Empress to Union CDA and to Union EDA? Would there be any capital cost associated with achieving that capacity? If so, what is the capital cost?
- h) What is the Book Value of the assets that are converted to oil service under e) and f) above?
- i) What is the impact to the long haul and short haul TransCanada tolls under e) and f) above?
- j) How would converting a portion of the Mainline capacity to oil service change the statement TransCanada made regarding IT service being essentially firm?
- k) Please provide all internal and external presentations that address the conversion of Mainline facilities to oil service.

7. *Reference:* i) TransCanada Written Evidence, Section 3.1, page 5, lines 17-26; ii) Exhibit J.B-1-7-12

Preamble: TransCanada states its availability and response time to an outage at Parkway during peak winter period using STFT Services.

Question:

- a) If TransCanada lost Union deliveries at Parkway, is there any scenario under which TransCanada would issue an Operational Flow Order or call Force Majeure.
- b) If there is an outage of the deliveries from Union to TransCanada at Parkway, please provide the impacts to the TransCanada system assuming an outage of i) 1 hour, ii) 4 hours, iii) 24 hours, and iv) 144 hours. Please include all assumptions used in the analysis, including modeled Mainlines pressures and flows.
- c) After how many hours of an outage of Parkway deliveries to TransCanada would the delivery pressure at TransCanada's interconnections with the Enbridge system drop below minimum pressure requirements. Please include all assumptions used in the analysis, including modeled Mainlines pressures and flows.

8. *Reference:* i) TransCanada Written Evidence, Section 3.1, page 5, lines 11-17; ii) TransCanada Written Evidence, Section 3.1.1, page 6, lines 5-6; iii) TransCanada Written Evidence, Section 3.1.1, page 6, lines 10-12; iv) TransCanada Written Evidence, Section 3.1.5, page 8, lines 7-8

Preamble: TransCanada has substantial capacity to assist Union immediately in the event of a critical unit failure and TransCanada infrastructure can reliably deliver Empress supply to the Ontario markets during an LCU event at Parkway from the onset of the event.

Question:

- a) TransCanada states IT could be available in as little as four hours. Is it possible that IT is not available within four hours based on standard NAESB nomination windows?

- b) How much notice does TransCanada give its customers prior to interrupting?
 - c) If TransCanada lost all Union deliveries at Parkway for an extended period would TransCanada cut all IT volumes on the next available window, or next day(s).
 - d) Please provide a table or graph which details daily Empress receipts and Emerson receipts for transportation to markets east from January 1, 2005 to the present. Please indicate which days those receipts were less than 1 PJ?
 - e) How long does it take a molecule of gas to travel from Empress to Maple? What assumptions did TransCanada make in that calculation, including line pack pressure, firm quantities and IT quantities?
 - f) Please provide a schematic of all of TransCanada's facilities in Ontario indicating size of pipe, line valve locations and compressor plants with Horsepower.
 - g) Please provide system capacity from Station 116 to Parkway and Parkway to Union EDA for each year from 2000 to 2012. For each of the above, provide the forecast capacity in each year from 2013 to 2020.
 - h) In total, how many sections and kilometres of TransCanada Mainline and NOL pipe has had the pressure derated on the Mainline between Empress and Parkway due to system integrity concerns? Based on integrity modelling, how many sections and kilometres of pipe are forecast to be pressure derated over the next 10 years?
 - i) For the assets in Ontario please provide a list of any incident since January 1, 2000 on the Mainline or NOL systems that resulted in a partial or full loss of capacity. For each incident please provide a description of the incident, the duration of the incident, and the impact on the TransCanada system during the incident.
 - j) Please provide the capacity on the NOL between Station 45 and Station 116 for each month between January 1, 2000 and May 1, 2012 and for every change in capacity, please explain.
 - k) Since January 1, 2000, on a monthly basis, please provide the Maximum Allowable Operating Pressure (MAOP) for each line between Station 45 and Station 116. Please identify the MAOP for each segment between main line valves on each line, noting the changes along the length.
9. *Reference:* i) TransCanada Written Evidence, Section 3.1.2, page 7, lines 2-6; ii) TransCanada Written Evidence, Section 3.1, page 5, lines 11-13; ii) "TransCanada seeks switch from Gas to Oil", The Globe and Mail (<http://www.theglobeandmail.com/globe-investor/transcanada-seeks-switch-from-gas-to-oil/article2415779/>), 27 April 2012

Preamble: TransCanada states the quantity of STFT available is sufficient to mitigate the LCU shortfall.

Question:

- a) For STFT from i) Empress to Union CDA, ii) Empress to Union EDA and iii) Empress to Enbridge CDA for each day for the months of December, January, February, and March for the years 2005 to 2012 inclusive:
 - a. What was Quantity Available?
 - b. What was Quantity Sold?
 - c. What was Quantity Remaining?

- b) What would be the quantities of STFT available in a) above assuming that the largest mainline gas pipeline is converted to oil service?
- c) What would be the quantities of STFT available of a) above assuming that the smallest gas pipeline is converted to oil service?
- d) What is the maximum term of STFT?
- e) Please explain TransCanada's method of selling STFT. When does it formally become available to be bought and under what condition? What are the Terms & Conditions of purchasing STFT if purchased during the winter period?
- f) Please describe any proposals TransCanada has made to change the Terms & Conditions of STFT in RH-003-2011.
- g) Please describe any proposals other intervenors have proposed to change the Terms & Conditions of service for STFT in RH-003-2011.

10. *Reference:* TransCanada Written Evidence, Section 3.1.4, page 7, lines 19-27

Preamble: TransCanada estimates the cost of acquiring STFT capacity.

Question:

- a) Please provide the detailed calculation of TransCanada's estimate of \$8 million to \$12 million as well as the net cost of using STFT presumed as \$2-\$8 million. In so doing, please outline all assumptions made in the calculation.
- b) Please provide the estimated cost using TransCanada's Approved Mainline Interim Tolls effective January 1, 2012.

11. *Reference:* TransCanada Written Evidence, Section 3.2, page 8, lines 14-20

Preamble: TransCanada states that it can transfer existing equipment from another location to Parkway, thus using existing infrastructure. TransCanada states that could install the compressor adjacent to the existing TransCanada lines.

Question:

- a) Please confirm what equipment TransCanada refers to that could be moved from one location to a location near Parkway.
- b) Specifically which lands would TransCanada propose to locate the compressor on at or near Parkway? Has TransCanada inquired into the availability of that land?
- c) How much property does TransCanada currently own at or near Parkway?
- d) Please describe the current facilities TransCanada owns and operates at Parkway.
- e) Where would TransCanada propose to locate an LCU compression unit at Parkway to utilize existing infrastructure? What would be the separation distance from Union's existing compressor plants?
- f) How does TransCanada estimate that the capital cost savings for the TransCanada proposal is 50%?

- g) Please list all compressors that TransCanada considers to be excess to current operation requirements. For each compressor please provide:
 - a. Date Manufactured and Installed.
 - b. Current Location.
 - c. Hours of Operation per Generator (since installation).
 - d. Dates of any Major Overhauls.
 - e. Horsepower Rating.
 - f. Design Flows, including minimum suction and maximum discharge capabilities.
 - g. Whether these units are used or useful and could be sold to another party.
 - h) TransCanada states a cost of \$70 million for relocating compressor units to Maple as part of their expansion plans. Please provide the following:
 - a. Detailed breakdown of the \$70 million cost.
 - b. Amount of horsepower per unit being relocated.
 - c. The sites from which the compressor units are being relocated.
 - d. The cost of the changes required at each of those sites.
 - e. Impact to the capacity of the Mainline and NOL system after the compressors are relocated.
 - f. Please confirm that the Maple expansion has land readily available and piping infrastructure for expansion within its property.
 - i) How are the costs for spare compressors on the Mainline system allocated? Are Ontario consumers the only consumers to pay for spare compressors on the Mainline system?
 - j) Please provide any internal or external presentations, analysis or communications in relation to TransCanada's assertion that it could transfer existing equipment to Parkway.
 - k) Would TCPL sell a used compressor to Union.
12. *Reference:* TransCanada Written Evidence, Section 3.3, page 9, lines 12-19 and page 10, lines 1-8

Preamble: TransCanada offers as an alternative to LCU protection at Parkway, transportation from Kirkwall to Parkway via the TransCanda system.

Question:

- a) Has TransCanada reviewed this with any customer?
- b) Has TransCanada ever discussed these facilities or options with Union?
- c) Has TransCanada asked Union about using existing Union facilities?
- d) Please provide a copy of all internal presentations or analysis to senior management and presentations or analysis to customers, potential customers or other external parties that address the possibility of upgrading the TransCanada Domestic Line.
- e) What is TransCanada's capacity between Niagara/Chippawa to Kirkwall on the TransCanada Mainline after the 2013 expansion?
- f) Without any capacity expansion, what is TransCanada's capacity on the low pressure system between Niagara/Chippawa and Kirkwall?
- g) What is the total volume contracted for firm receipts at Niagara and Chippawa on the TransCanada system to Kirkwall and other downstream points as of November 1, 2013?

- h) To the best of TransCanada's knowledge, what is the total volume contracted for delivery on U.S. pipeline systems to Niagara and Chippawa as of November 1, 2013?
- i) Where would TransCanada locate one or two compressors in the vicinity of Parkway? What associated yard piping changes would be required?
- j) What year would the proposed TransCanada facilities be in-service?
- k) Please provide contract quantity, receipt point and delivery point for all transportation contracts with Union involving service from the TransCanada Domestic Line that have expired within the previous 18 months. Please comment on whether Union requested renewal of any of those contracts?

13. *Reference:* TransCanada Written Evidence, Section 3.4, page 10, lines 9-13

Preamble: TransCanada proposes an alternative that would flow gas from Dawn to Parkway on a path with significant distance using GLGT and TransCanada infrastructure.

Question:

- a) Please confirm that this alternative would have gas flow approximately 3,800 km from Ontario to Manitoba and back again.
- b) Does TransCanada use this path for its own system deliveries to Parkway or other points?
- c) Does TransCanada use this path for its own system LCU protection at Maple or other points?
- d) What is TransCanada's total cost of flowing Dawn to Parkway via the TransCanada and GLGT systems? Please include all assumptions including tolls, fuel, O&M and embedded cost of service.
- e) Does TransCanada operate and maintain more equipment on its Emerson to Eastern Zone pipelines than it otherwise would if the gas flowed on a more direct path from Dawn to Parkway and from Parkway to market?

14. *Reference:* TransCanada Written Evidence, Section 3.4, page 11, lines 3-6

Preamble: TransCanada states that "Union would not require additional compression to increase it Dawn to Dawn-TCPL capacity".

Question:

Specifically on what basis does TransCanada assert that "Union would not require additional compression to increase its Dawn to Dawn-TCPL capacity"?

15. *Reference:* TransCanada Written Evidence, Section 3.4, page 11, lines 10-12

Preamble: TransCanada states that "the most significant cost for this alternative would be the GLGT transportation".

Question:

- a) What is TransCanada's estimate of the GLGT firm transportation cost to provide protection for an LCU event at Parkway? Please state all assumptions.

- b) Please confirm if firm service between Dawn and Emerson on the GLGT system is provided with LCU protection?
- c) What facilities are required to provide each of the services in a) above? Do the transportation costs in a) above include the impact of any incremental capital to provide the firm service on GLGT or TransCanada system? If there was a capital requirement, what was the capital cost to be able to backhaul on GLGT and in which year.

16. *Reference:* TransCanada Written Evidence, Section 4, page 11, lines 21-24

Preamble: TransCanada indicates that “events that would prevent deliveries from being made at Parkway and Lisgar appear to be extremely unlikely to occur”.

Question:

Please confirm that TransCanada is aware of an outage that occurred at the Lisgar interconnection with Enbridge on September 30, 2009 due to a fire that required the station to be shut-in for approximately seventy-five (75) days?

17. *Reference:* i) TransCanada Written Evidence, Section 4, page 12, lines 20-25; ii) “TransCanada seeks switch from Gas to Oil”, The Globe and Mail (<http://www.theglobeandmail.com/globe-investor/transcanada-seeks-switch-from-gas-to-oil/article2415779/>), 27 April 2012

Preamble: TransCanada can provide more supply reliability to the Greater Toronto Area (GTA) than the proposed Parkway West facility.

Question:

- a) In the event that service is interrupted to Enbridge at the Parkway (Consumers) feed or to both Parkway(Consumers) and Lisgar, describe in detail how TransCanada can provide incremental supply of up to 1.6 PJ/d on a design day through its existing facilities, including delivery points, flow at each delivery point, delivery pressures and sources of supply.
- b) Please indicate whether the system pressure will fall below the minimum required delivery pressure at interconnections within the Enbridge CDA and Union EDA at any point in the modeling for a) above.
- c) If one of the Mainline and NOL pipes is converted to oil service, what impact would that have on the ability of TransCanada to provide incremental supply of up to 1.6 PJ/d on a design day to Enbridge in the event of an outage of the Parkway (Consumers) feed or an outage of both the Parkway (Consumers) and Lisgar feeds.
- d) Please indicate whether the system pressure will fall below the minimum required delivery pressures at interconnections within the Enbridge CDA and Union EDA at any point in the modeling for c) above.

18. *Reference:* (i) TransCanada Written Evidence, Section 1, page 2, lines 7-9 and (ii) TransCanada Written Evidence, Section 5, page 13, lines 4-19 and (iii) TransCanada Written Evidence, Section 6, page 13, lines 22-23

Preamble: (i) Union has proposed Parkway West for the reliability of its services into the TransCanada system. (ii) The Parkway West Project should be considered in the context of the market's development of expanded services to serve Maple and downstream points. (iii) Much is on the horizon for facilities development downstream of Parkway and in the GTA.

Question:

- a) Please confirm that with TransCanada expansion downstream of Parkway, incremental throughput through Union's Parkway Compressor Station will be required.
- b) Please confirm/demonstrate how TransCanada interprets that the proposed Parkway West Project and the proposed Parkway Extension Project are linked.
- c) Please confirm that the Parkway West Project would provide LCU protection for Parkway deliveries to TransCanada's expansion plans.
- d) Please confirm that TransCanada's Mainline and NOL are designed with LCU protection.
- e) Please confirm that TransCanada depends on the reliability of Union's transportation services and supports LCU protected facilities.