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Our File # 339583-000193

By electronic filing

July 20, 2015

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
27<sup>th</sup> floor  
Toronto, ON M4P 1E4

Dear Ms. Walli

**Re: Union Gas Limited ("Union")  
Burlington Oakville Pipeline**  
**Board File #: EB-2014-0182**

Please find attached Responses to Interrogatories on Evidence prepared by Aggie Cheung and submitted on behalf of Ontario Greenhouse Vegetable Growers ("OGVG") and Canadian Manufacturers & Exporters ("CME") to Interrogatories posed by Union Gas Limited ("Union") and by Ontario Energy Board Staff ("OEB").

Yours very truly

A handwritten signature in black ink, appearing to read 'Vincent J. DeRose', with a long horizontal flourish extending to the right.

Vincent J. DeRose

enclosures

c. Vanessa Innis (Union)  
Charles Keizer (Torys LLP)  
Dwayne Quinn (OGVG)  
Aggie Cheung  
Intervenors EB-2014-0182  
Paul Clipsham and Ian Shaw (CME)

OTT01: 7113012: v1

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B;

**AND IN THE MATTER OF** an Application by Union Gas Limited for leave to construct a natural gas pipeline and ancillary facilities in the Town of Milton and the Town of Oakville and for approval to recover the cost consequences of the development of the proposed Burlington Oakville Project.

**RESPONSES BY  
ONTARIO GREENHOUSE VEGETABLE GROWERS (“OGVG”)  
AND BY CANADIAN MANUFACTURERS & EXPORTERS (“CME”)  
TO INTERROGATORIES OF UNION GAS LIMITED (“UNION”)**

**Interrogatory #1**

*Reference:* Page 3, paragraph 8

*Preamble:* Ms. Cheung provides a summary of her understanding of the current arrangements to serve the Burlington Oakville System.

*Question:*

- (a) Please provide a reference for the assumption of a 60 TJ/d exchange with Enbridge.

*Response:*

- (a) The evidence should read “From a third party”, not “From Enbridge”. Attachment 9 to the evidence describes the exchange as from a third party.

**Interrogatory #2**

*Reference:* 1) pages 4-5, paragraph 15  
2) EB-2014-0182 June 19, 2015 letter - Responses to CME and OGVG Questions

*Preamble:* In reference 1), Ms. Cheung states:

*“If Union purchases the incremental gas supply at Niagara instead of Dawn and transports it through the TransCanada system to the Burlington Oakville area, Union's Dawn to Parkway system does not need to be expanded. The expansion of the Dawn to Parkway system can be further reduced if Union purchases gas supply to serve both the incremental demand and the existing demand.”*

In reference 2), the response to question 1a) states, “No further capacity is available on this path from TransCanada using the Domestic Line without facility expansion.”

*Question:*

- (a) Please confirm that there is no available Domestic Line capacity between Burlington Gate Station and Parkway after TransCanada's Greater Golden Horseshoe Project has been completed.
- (b) Please confirm that the Settlement Agreement between the Eastern LDCs and TransCanada recognizes that TransCanada will utilize Kirkwall to Parkway transportation on the Dawn Parkway System to provide further transportation capacity between Niagara and delivery points downstream of Kirkwall (including the Union ECDA).
- (c) Please confirm that the path from Niagara to Union ECDA using the Dawn Parkway System is Niagara to Kirkwall plus Kirkwall to Parkway plus Parkway to Union ECDA.

*Response:*

- (a) Confirmed for additional firm service from Burlington to Parkway. There may be additional firm service capacity from Parkway to Burlington. Union will have to seek confirmation from TransCanada of the exact amount available.
- (b) Not confirmed. Article 8.2 (b) in the Settlement Agreement states that *"TransCanada shall utilize Union's Dawn Parkway system to accommodate other additional requests for Firm Service quantities for receipt from its Niagara Falls and/or Chippawa Receipt points for delivery to the Parkway Enbridge CDA or locations at or north of Parkway (emphasis added)"*. Union ECDA is located south of Parkway.
- (c) Not confirmed. Please see the diagrams in OGVG/CME response to OEB Interrogatory #2. These diagrams show that TransCanada design its system to meet aggregate demands. The "path" as defined in the question implies an incremental approach in system design, i.e. the existing deliveries and existing capacities are left unchanged with the new FT layered on top. This is not how TransCanada designs its system. Attachment 5 to the evidence shows how TransCanada demonstrates if incremental facilities are required. TransCanada prepares two flow schematics, one with current facilities and one with proposed facilities. TransCanada uses the same aggregate demand in both schematics. If TransCanada uses an incremental approach in system design, the flow schematics with current facilities would include only current demand while the flow schematics with proposed facilities would show only the new demand and facilities required to meet that demand.

**Interrogatory #3**

*Reference:* page 5, paragraph 16

*Preamble:* Ms. Cheung states Union could increase the supply from Niagara to meet its aggregate demand for Union South.

*Question:*

- (a) Please provide an assessment of the market at Niagara since 2012, including number of average daily reported trades and average daily quantity of reported trades.
- (b) Please provide an explanation of how excess supply to the Burlington Oakville System would be dealt with on non-design days, including a discussion of any assets required to manage the excess supply.

*Response:*

- (a) Ms. Cheung does not possess such data. Paragraph 26 in the evidence provides a list of outstanding issues that need to be addressed. Liquidity is one of the issues. Prior to TransCanada's Greater Golden Horseshoe application, the design import capacity at Niagara is only 524 TJ/d. After the modifications approved in TransCanada's application are complete, the combined import capacity at Niagara and Douglastown will total 1005 TJ/d. As more volumes are imported at Niagara, trading activities are expected to increase. Union was instrumental in developing the Dawn hub more than a decade ago. It can now help to develop a new hub at Niagara. Since Union has markets that lie between Dawn and Niagara, one would expect Union's customers will benefit from having liquid pricing points at both Dawn and Niagara.

Please also see OGVG/CME response to OEB Interrogatory #5(a).

- (b) Paragraph 26 in the evidence identifies two outstanding issues relevant to this question: operational integration of increased supply from Niagara, and necessity and impact of and potential modification to the proposed segregation of Union CDA to Parkway, ECDA and amended CDA if alternative approach is used. Ms. Cheung understands that Union's Dawn to Parkway system is designed on a winter peak day with loss of critical unit basis. In the winter, gas moves from Dawn to Parkway. If there is excess supply to the Burlington Oakville system, the excess supply will be delivered from TransCanada to Union at Kirkwall for delivery at Parkway. This would mean less gas needs to be transported by Union from Dawn to Kirkwall. In the summer time, when gas is injected into storage, the excess supply will be delivered by TransCanada to Union at Kirkwall for delivery at Dawn. Since Union's Dawn to Parkway system is designed on a winter peak day with loss of critical unit basis, capacity should exist in the summer to allow this delivery without having to construct new facilities. Storage capacity should already exist because the incremental supply at Niagara is meant to displace existing supplies. Based on Ms. Cheung's cursory understanding of the Union system, these issues require resolution but do not appear to be insurmountable. While Union will likely have to (i) modify its current operations and (ii) discuss with TransCanada how best to deal with the segregation of the CDA, these issues can be resolved if both parties are willing to cooperate.

**Interrogatory #4**

*Reference:* Attachment 9

*Preamble:* Union seeks to understand the analysis performed by Ms. Cheung in Attachment 9.

*Question:*

- (a) Please provide the analyses in Excel format, with all calculations intact.
- (b) Please provide references and/or calculations for all assumptions used in the revenue requirement forecast.

*Response to (a) and (b):*

Please see OGVG/CME response to OEB Interrogatory #1.

**Interrogatory #5**

*Reference:* Attachment 9

*Preamble:* Union seeks to understand the analysis performed by Ms. Cheung in Attachment 9 assuming that in the future TransCanada requires Union to contract for transportation capacity from Kirkwall to meet in-franchise demand at the Nanticoke (Kirkwall/Dominion) and Hamilton Gate #3 Stations (135 TJ/d).

*Question:*

- (a) Please recalculate the cost comparisons in Attachment 9 assuming the contract for 135 TJ/d from Kirkwall to the Union CDA is required in all cases, including in the columns labeled 'Alternative'.

*Response:*

- (a) Ms. Cheung declines to provide the requested cost comparisons assuming the contract for 135 TJ/d from Kirkwall to the Union CDA is required in the Alternative because that would be contrary to Union's testimony during the technical conference on May 21, 2015. The questions and answers from transcript page 72 is reproduced below.

*"MR. WOLNIK: So if you made the decision to -- if the outcome had been different, you'd made the decision to purchase the service from TransCanada to Bronte, are you saying you wouldn't also have contracted for the 135 a day?"*

*MR. ISHERWOOD: That's correct. We'd do one or the other.*

*MR. WOLNIK: How would you have met that demand to meet the 135 a day --*

*MR. ISHERWOOD: Same way we have for the last 20, 30 years."*

**Interrogatory #6**

*Reference:* 1) Attachment 9  
2) Exhibit A, Tab 7, page 4

*Preamble:* In reference 2), Union's evidence outlines the existing capacity/contracts and additional design day requirement.

*Question:*

- (a) Please confirm that supply currently originating at Dawn and being transported to the Burlington Oakville System (whether on Union's pipelines or on the TransCanada system) would not attract the marginal transportation rate (versus the current transportation rate).
- (b) Please recalculate the cost comparisons in Attachment 9 to reflect the actual Dawn to Parkway quantity that would attract the marginal transportation rate (versus the current transportation rate) in the columns labeled 'Proposed using Incremental Capacity Rate'.

*Response to a) and b):*

Union misunderstands the use of the incremental capacity rates in the cost comparison. As stated in paragraph 23 in the evidence, "*The cost comparison excluding fuel (see attached Excel workbook, tab 276 TJ, Attachment 9) shows annual savings of \$4 to \$12.8 million depending on whether the comparison is based on current rates or **the cost of incremental capacity**<sup>1</sup> (emphasis added) on Union's Dawn to Parkway system for the ultimate 2035 demand of 276 TJ/d.*"

Ms. Cheung recognizes that rolled in rates would prevail on both TransCanada and Union systems. This is why current rates are used in the cost comparison. However, if Union is in an expansion mode, the freed up capacity on the Dawn to Parkway system can be used to serve new service requests thereby reducing the need for incremental facilities. In that regard, the cost savings to Union's customers as a whole is represented by the incremental capacity cost. It should be noted that the evidence provides a range of cost savings based on the costs for one year, not a comprehensive cost comparison. Please see OGVG/CME response to OEB Interrogatory #5(a).

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<sup>1</sup> Incremental capacity rate for Dawn to Parkway is based on Union response to OGVG.4: \$14.2 million for 220 TJ from Dawn to Parkway.

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**RESPONSES BY  
ONTARIO GREENHOUSE VEGETABLE GROWERS (“OGVG”)  
AND BY CANADIAN MANUFACTURERS & EXPORTERS (“CME”)  
TO INTERROGATORIES OF ONTARIO ENERGY BOARD STAFF (“OEB”)**

**Interrogatory #1**

*Reference:* OGVG/CME Evidence, pages 3-8

*Question:*

- (a) Please list all the assumptions under which the alternative (No-Build) proposal in the evidence has been made.

*Response:*

- (a) The technical feasibility is premised on two major assumptions: (i) no incremental facilities are required on the TransCanada and Union systems to accommodate increased deliveries from Niagara to ECDA and (ii) incremental FT from Niagara to ECDA can commence on November 1, 2016. Union’s response to CME and OGVG questions, dated June 19, 2015, confirmed that no incremental facilities would be required and the incremental FT can commence on November 1, 2016 provided the Burlington Oakville pipeline is not built.

All the assumptions used to prepare the cost comparison are provided in the OGVG/CME Evidence, Attachment 9 (pdf page 42, sources 1 to 5). An executable Excel workbook used to prepare Attachment 9 is submitted herein. The current transportation rates on TransCanada and Union were those in effect when the analysis was prepared in June 2015. The financial parameters used in preparing the revenue requirement forecast were obtained from Union’s application, Exhibit A, Tab 9 and adjusted as necessary to match the forecast revenue requirement provided Exhibit A, Tab 9, Schedule 4 (see Evidence, Attachment 9, pdf pages 45 and 46).

In addition to the above assumptions, the economic feasibility is premised upon Union obtaining incremental gas supply at Niagara and/or Douglastown. This requires displacement of existing supplies. Attachment 3 to OGVG/CME Evidence shows the sources of the existing supplies to serve the Union South demand. It will be up to Union to decide how best to phase in new supplies from

Niagara and/or Douglastown. For example, Union could start by obtaining Niagara supplies to replace the exchange arrangement and then increasing Niagara supplies to meet demand growth and/or replace expiring existing supplies. The high level cost comparison shows that as the amount of incremental volume at Niagara and/or Douglastown decreases from the ultimate volume of 276 TJ/d, the cost savings of the no-build alternative over Union's proposal increases.

### **Interrogatory #2**

*Reference:* OGVG/CME Evidence, pages 1-8

*Question:*

- (a) Please confirm that the evidence implies that the completion of the Burlington Oakville pipeline and TransCanada's Golden Horseshoe project would lead to excess capacity and duplication of infrastructure in Ontario.

*Response:*

- (a) It should be noted that TransCanada is not building a new pipeline since a pipeline already exists along the Burlington to Parkway corridor. TransCanada's Golden Horseshoe project consists of modifications that would allow for reverse flow, i.e. instead of gas flowing to Douglastown, gas would flow from Douglastown.

The answer to the question is it depends. If both systems were owned by one company, there would be excess capacity and duplication of infrastructure if the Burlington Oakville pipeline is built.

Since the two systems are owned by two different companies, the answer is not as straight-forward. There would be duplication of infrastructure because TransCanada has an existing pipeline that transports gas from Bronte to Parkway and Union is proposing to build a new pipeline that will transport gas in the opposite direction from Parkway to Bronte. There is currently no excess capacity on either TransCanada or Union because each company base its determination on its forecast aggregate demands and its combined physical and third party transportation capacities. Notwithstanding the lack of excess capacity on the two systems, Union confirmed in its response to OGVG/CME questions, that TransCanada can provide new FTs totalling 276 TJ/d from Niagara/Douglastown to Union ECDA with no new facilities on either TransCanada or Union.

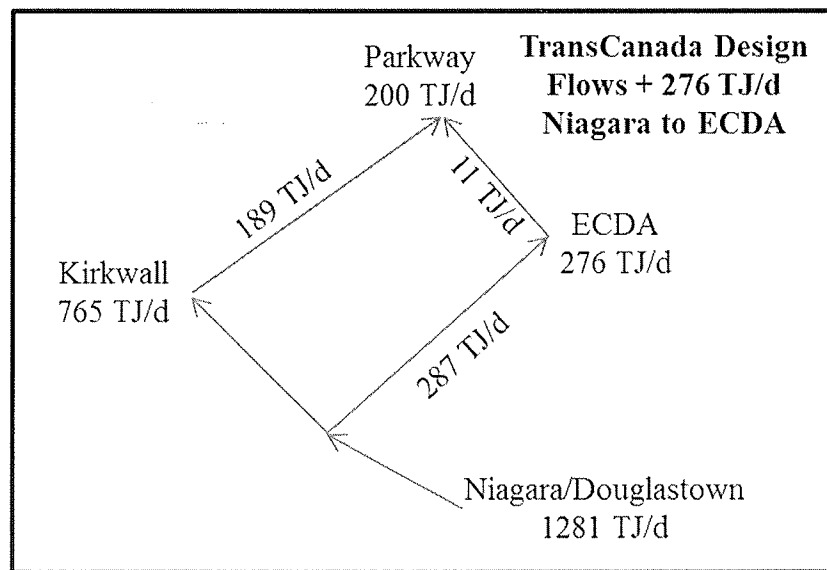
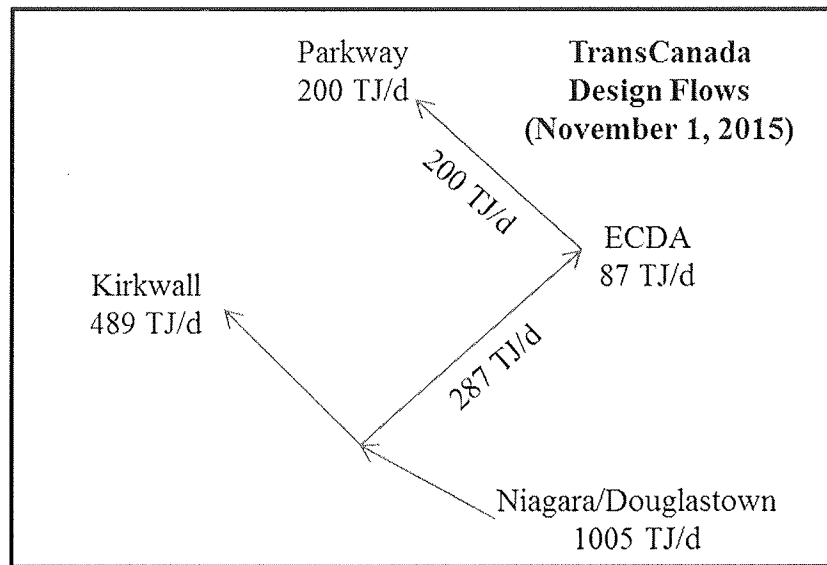
The following two diagrams depict the design flows on the TransCanada system without and with the no-build alternative using information from TransCanada's Greater Golden Horseshoe application. The top diagram is a simplified version of TransCanada's flow schematics with proposed facilities included in Attachment 5 to the evidence. It shows the design flows after the approved modifications are



complete. This diagram represents the existing scenario without the no-build alternative. The bottom diagram shows the design flows assuming Union requests an additional 276 TJ/d FT from Niagara to ECDA. This represents the ultimate volume in the no-build alternative.

All the pipelines shown in the top diagram "TransCanada Design Flows (November 1, 2015)" are owned and operated by TransCanada. The pipeline segment between Kirkwall and Parkway in the bottom diagram "TransCanada Design Flows + 276 TJ/d Niagara to ECDA" is owned and operated by Union. As shown in these diagrams, on the design day, less gas would flow on the TransCanada's Domestic Line from ECDA to Parkway under the no-build alternative. The new FT does not flow from Niagara to Kirkwall to Parkway and south to ECDA as described by Union. The amount of gas going through the Domestic Line to ECDA is assumed to remain constant at 287 GJ/d under both scenarios to reflect capacity constraint for flows from ECDA to Parkway.

It should be noted that the diagrams depict an additional 276 TJ/d from Niagara. To the extent that incremental supplies at Niagara is less than 276 TJ/d, volumes at Kirkwall and the flows through Union from Kirkwall to Parkway would decrease and deliveries through the Domestic Line to Parkway would increase up to a maximum of 200 TJ/d.

**Interrogatory #3**

*Reference:* OGVG/CME Evidence, pages 1-8

*Question:*

- (a) Please list all the risks associated with the alternative (No-Build) proposal suggested in the evidence.
- (b) Please confirm if OGVG/CME has contacted TransCanada to confirm that it can provide the required capacity to Union using the pathways suggested in the evidence.

*Response:*

- (a) There most significant risk associated with the no-build alternative is Union's willingness and ability to displace existing supplies with Appalachian supplies at Niagara and/or Douglastown. Union is planning to access Appalachian supplies through the proposed NEXUS gas transmission pipeline as described in the EB-2015-0166 application. The proposed NEXUS capacity will allow Union to replace existing contracts on Alliance Pipelines and TransCanada<sup>1</sup>. Accessing incremental Appalachian supplies through Niagara and/or Douglastown does not appear to be part of Union's current gas supply planning.
- (b) Not confirmed. Union confirmed in its response to OGVG/CME questions, that TransCanada can provide new FTs totalling 276 TJ/d from Niagara/Douglastown to Union ECDA with no new facilities on either TransCanada or Union. It should be clarified that the evidence did not suggest any particular pathway the new FT would take. TransCanada designs its system to meet the forecast aggregate demands by having the appropriate amount of pipeline and compression facilities and third party transportation services in place. The use of particular pathways was referenced in Union's response to OGVG/CME questions. Please see response to Interrogatory #2 above.

**Interrogatory #4**

*Reference:* OGVG/CME Evidence, pages 1-8

*Question:*

- (a) Please explain how the alternate proposal is a more suitable alternative to Union's proposal in terms of ensuring capacity adequacy over the long term and system integration with other transportation assets of Union.

*Response:*

- (a) In terms of ensuring capacity adequacy over the long term, TransCanada is an open access transporter that began operation in 1957. Provided Union meets TransCanada's tariff requirements, Union should be able to obtain firm transportation services from TransCanada for as long as it requires the firm service. The no-build alternative provides more flexibility than Union's proposed new pipeline. Union can design a FT contracting strategy that matches its gas supply portfolio and demand growth in the Burlington Oakville area. There would be a better matching of cost to growth. If the demand growth does not materialize as currently forecast, Union can adjust its FT contract to suit the demand. If

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<sup>1</sup> EB-2015-0166, Exhibit A, page 11 of 54.

demand should fall, Union can reduce the contract quantity at the end of the contract term.

In terms of integration with other transportation assets of Union, there are existing interconnections between Union and TransCanada as shown in the diagrams in the response to Interrogatory #2 above. No new facilities are required on either system to accommodate the no-build alternative for the ultimate volume of 276 TJ/d. As more gas is delivered to the ECDA from TransCanada, Union can deliver less gas from Parkway to Burlington and Oakville through the existing 8" and 12" lines. This will free up capacity on Union's Dawn to Parkway system thereby allowing Union to reduce its capital expansion program or serve new customer requests using the vacated capacity.

### **Interrogatory #5**

*Reference:* OGVG/CME Evidence, pages 7, para.25

*Preamble:* The evidence notes that the high level economic analysis is not purported to be a comprehensive economic evaluation, rather it demonstrates that further investigation is merited.

*Question:*

- (a) Please explain what type of further investigation is required and confirm if OGVG/CME are proposing that the OEB extend the proceeding to allow for further investigation in this proceeding. How does OGVG/CME propose that the Ontario Energy Board proceed with the application?
- (b) If further investigation is required, how long does OGVG/CME estimate that this would take?
- (c) Should further investigation include an independent study to assess the need for the proposed infrastructure and propose alternatives?

*Response:*

- (a) OGVG/CME are not proposing that the OEB extend the proceeding to allow for further investigation. The high level cost comparison included in the evidence was based on the cost from one year. It excludes the cost of fuel and the cost of gas supply and it excludes the benefit from increased revenue to TransCanada. A proper cost comparison should be a full NPV analysis using appropriate forecast assumptions, such as, annual revenue requirement from the proposed Burlington Oakville pipeline, annual demand growth and FT contract increase to match the demand growth. It should also include the cost of fuel and gas supply costs. Attachment 11 to the evidence shows that the cost of gas at Dawn is higher than

that at Niagara. It is noted that TransCanada can provide the new FTs without adding any new facilities. The additional revenue will benefit Ontario customers. The comprehensive cost comparison should provide the expected cost savings considering all relevant factors from the no-build alternative, not just a range of potential savings for one year as presented in the evidence. Union is better equipped than OGVG/CME to perform a proper cost comparison as it has the necessary data to perform such analysis.

Based on the high level cost comparison, OGVG/CME believes the no-build alternative can provide significant cost savings as compared to Union's proposal. In that regard, OGVG/CME believes the Board should disapprove the current application and direct Union to (i) prepare a proper cost comparison; (ii) develop a FT from Niagara and/or Douglastown contracting strategy and a corresponding gas supply strategy to meet the forecast Burlington Oakville demand up to the year 2035; and (iii) submit an application to the Board seeking approval for the contracting and gas supply strategy.

- (b) Please see response to (a) above.
- (c) Yes, an independent study could be beneficial. It is noted that Union is the only party that has all the necessary economic and financial data required to perform a comprehensive cost comparison. Please also see response to (a) above.