

Reply to the Attention of Laura Brazil
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Our File No. 231915
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RESS AND DELIVERED BY COURIER

Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Attention: Kristen Walli
Board Secretary
boardsec@ontarioenergyboard.ca

Dear Ms. Walli:

**Re: EB-2015-0179
Union Gas Limited Application for Community Expansion Project
Interrogatories of Canadian Propane Association**

Further to Procedural Order No. 1, please find attached the Interrogatories of Canadian Propane Association.

As directed in the Order, two paper copies will also be delivered to your attention today.

Yours truly,



Laura Brazil

/kk
Attach.
cc by email: Parties of Record
Mike Richmond (McMillan LLP)

ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B, and in particular S. 36 thereof;

AND IN THE MATTER OF the Ontario Energy Board Act, 1998, c.15, Schedule B, and in particular, S. 90 thereof;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders for approval of Union's Distribution System Expansion Project proposals;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities required to serve the communities of Milverton, Prince Township and, the Chippewas of Kettle and Stony Point First Nation and Lambton Shores.

INTERROGATORIES OF CANADIAN PROPANE ASSOCIATION TO UNION GAS LIMITED

CPA Question No. 1

Reference: See below. All references in these interrogatories are to Union's Application (Tab 1 of Union's Application), unless otherwise stated.

Union presents figures, tables, and survey results without providing the data and documents on which they are based. CPA is, therefore, unable to test those figures, tables, and survey results.

- (a) Provide complete underlying data, calculations, assumptions, source documents, survey questions, survey results, identities of survey participants and persons Union attempted to survey, as applicable, for the following:
- (i) Figure 1 at page 9
 - (ii) Figure 2 at page 10
 - (iii) Table 1 at page 18

- (iv) Table 2 at page 19
- (v) Survey referenced at page 20
- (vi) Figure 4 at page 25
- (vii) Table 3 at page 26
- (viii) Table 8 at page 45
- (ix) Appendix D
- (x) Survey at Exhibit “A”, Tab 2, Section “A”, page 4, paras. 18 and 19
- (xi) Survey at Exhibit “A”, Tab 2, Section “B”, page 4, paras. 18 and 19 (to the extent that it differs from the survey referenced at page 20)
- (xii) Survey at Exhibit “A”, Tab 2, Section “C”, page 4, paras. 16 and 17
- (xiii) Survey at Exhibit “A”, Tab 2, Section “D”, page 4, paras. 16 and 17
- (xiv) Survey at Exhibit “A”, Tab 2, Section “E”, page 4, paras. 16 to 18

CPA Question No. 2

**Reference: Page 9, Figure 1
Page 10, Figure 2**

Figures 1 and 2 of Union’s Application purport to convey the cost of propane for residential energy purposes over a 10 year period.

- (a) Confirm whether the source used to develop the propane cost estimates in Figures 1 and 2 relates to auto propane (used for vehicles) or heating propane (used for residential and commercial heating purposes). Provide a copy of the source.

CPA Question No. 3

Reference: Various

Union includes tables, figures and appendices throughout the Application which use a minimum TES period of 4 years. The TES period proposed by Union for the majority of proposed projects described in Appendix D is 10 years. The tables, figures and appendices which reflect the 4-year TES periods do not allow for proper analysis of projects with a 10-year TES period, nor do they allow for consideration of what the financial impacts would be if all projects had a minimum TES period of 10 years.

- (a) Revise all tables, figures, and appendices using a minimum TES period of 10 years.

CPA Question No. 4

Reference: Page 1, Lines 8 to 11
Union Gas' energy conservation web page:
<https://www.uniongas.com/environment/energy-conservation>

Union acknowledges at page 1 of the Application that the Ontario government intends to “implement a cap and trade program whose objective is to significantly reduce the use of natural gas”. Union also acknowledges on its web site that energy conservation is “the right thing to do”. However, there is no indication in any of the forecasts, estimates, and predictions that comprise Union’s Application that Union has accounted for reductions in natural gas usage in determining the viability or profitability of the proposed projects.

- (a) Given the Ontario government’s commitment to energy conservation and significantly reducing the use of natural gas, and Union’s statement that “energy conservation is the right thing to do”, how will the expected drop in natural gas usage as a result of these and other initiatives impact the financial case and attachment forecasts presented in this Application? Please include all underlying data, calculations, assumptions, and source documents.

CPA Question No. 5

Reference: Page 3, Lines 17 and 18
Page 32, Lines 20 to 21
Page 33, Lines 1 to 7
Page 40, Lines 19 to 20
Appendix “M”

Union states in Appendix “M” that the average rate increase would be \$3.88 per year. However, Union also claims that its proposal in this Application has been set to achieve the following objective, among others: “To limit the rate [increases] on existing customers to a maximum approximating \$2 per month (\$24 per year) over the multi-year expansion program.” The existence of a deferral account as described on pages 32 and 33 suggests that the \$24 per year cap is merely a target, not a real cap, and that any cost overruns or revenue shortfalls will be borne by existing customers, not Union shareholders.

- (a) If Union claims that its forecasted average rate increase is \$3.88 per year, why has Union set a target cap of \$24.00 per year (more than six times the forecasted average increase)?
- (b) If Union’s forecasts are incorrect and the proposed rate increase exceeds \$24 per year, who will absorb the excess costs – Union’s shareholders, new customers, or existing customers?
- (c) Where is the answer to (b) shown in Union’s Application?

CPA Question No. 6

Reference: Page 4, Lines 1 to 3
Page 10, Figure 2
Page 11, Lines 1 and 2

Union states at page 4 that the 30 proposed projects could serve 20,000 customers at a total capital cost of \$150 million. Accordingly, it would cost \$7,500 on average to connect a customer.

Union further states at page 11 that each new natural gas customer would save between \$10,000 and \$18,000 over a decade as a result of converting to natural gas. Accordingly, even if new customers pay an average of \$7,500 in connection costs, they would still on average save thousands of dollars. At Figure 2, Union contends that such financial benefits can begin to accrue to a new customer at year 3.75.

- (a) Given these numbers, on what basis does Union contend that connection and conversion would be uneconomic for each new customer in the absence of a subsidy from existing ratepayers?

CPA Question No. 7

Reference: Page 10, Figure 2
Page 10, Lines 6 to 9
Page 4, Lines 1 to 3

Figure 2 appears to show the cumulative cost of natural gas service in Year 1 at approximately \$7,500.¹

The Year 1 cost of \$7,500 is stated to be comprised of:

Replacement or conversion of equipment:	\$4,000
Customer contributions-in-aid-of-construction:	\$2,500
Annual Gas Delivery and Storage Costs	<u>\$1,000</u> ²
	\$7,500

Although Union uses an assumed customer CAIC of \$2,500 to arrive at these figures, Union states at page 4 that that the 30 proposed projects could serve 20,000 customers at a total capital cost of \$150 million, which translates to \$7,500 per customer, if fully funded by customer CAIC.

¹ The exact figure cannot be precisely determined by examining the chart as the scale is too small.

² Presumably, the remaining cost in Year 1 is approximately \$1,000 for the total annual cost of gas delivery and storage.

- (a) Provide a revised Figure 2 using at CAIC of \$7,500 and Year 1 costs of \$12,500 (\$4,000 + \$7,500 + \$1,000) to show what the impact would be if new customers were to pay the full average capital cost, as opposed to just paying $\frac{1}{3}$ of those costs.
- (b) In the current Figure 2, customers see a positive return on investment after 3.75 years. In the revised Figure 2 referred to in (a), when would customers see a positive return on investment?
- (c) In the revised Figure 2 referred to in (a), how much would a customer achieve in energy cost savings in the decade after connecting to the proposed natural gas expansion projects?

CPA Question No. 8

Reference: Page 5
Appendix "A", Page 4

Union states that it filed this proposal in response to the Board's letter dated February 18, 2015, which is attached as Appendix "A" to Union's Application. The Letter sets out the following guidelines for applicants:

- "Proponents should develop proposals that, while ensuring safety and reliability, are *cost effective* and incorporate flexibility with respect to cost recovery (e.g. ROE, depreciation period, recovery of capital contribution, etc.).
 - Proponents should develop proposals that include measures that foster *predictability and cost certainty* from a consumer perspective.
 - Proponents should develop proposals that *minimize impacts on existing natural gas ratepayers* as a result of new expansion projects." [Emphasis added.]
- (a) How does Union's proposal satisfy the Board's guideline that any proposals should be "cost effective", when Union is proposing to move forward with projects that have a PI of as low as 0.4 (and lower than 0.4 when considered on their own merits in the absence of TES and ITE)? Is a project with a PI of 0.4 "cost effective"?
 - (b) How does Union's proposal satisfy the Board's "predictability and cost certainty" guideline, when TES revenues and the increases to current customers' rates are entirely dependent on whether the attachment forecasts, in both volume and timing, are correct?
 - (c) How does Union's proposal satisfy the requirement to "minimize impacts on existing natural gas ratepayers" when the obligations of *new* customers are fixed at \$0.23 per m³, while the obligations of *existing* natural gas ratepayers are variable depending on actual

costs and actual uptake, and can be as high as \$24/year or perhaps higher if Union shareholders will not take on any liability for excess costs or lower TES revenues?

CPA Question No. 9

Reference: Page 12, Lines 4 to 6

Union states that it has previously expanded to a new community requiring Board facilities approval - Red Lake.

For questions (a) to (f) below, provide separate responses for residential and commercial customers:

- (a) At the time that Union sought Board facilities approval for Red Lake, what did Union forecast would be (i) the number of customers that would attach; and (ii) the percentage of total potential customers that would attach in each year after the Red Lake facilities began operating?
- (b) What were (i) the number of customers; and (ii) the percentage of potential customers, that actually attached in Red Lake in each year after the Red Lake facilities began operating?
- (c) What was the estimated average cost of connecting from the property line to the meter for each Red Lake customer?
- (d) What was the actual average cost of connecting from the property line to the meter for Red Lake customers?
- (e) How were these costs paid?
- (f) How did the allocation and payment of these costs in Red Lake differ from Union's proposal in this Application?
- (g) Did any large industrial, commercial or institutional anchor loads play a role in the decision to expand to Red Lake? If so,
 - i. Describe that role.
 - ii. Would smaller retail and residential expansion have made sense in Red Lake if not for the anchor loads? Explain.
- (h) What are the anchor loads in the five projects for which Union is seeking leave to construct in this Application?

- (i) Did the municipality in Red Lake agree to pay an ITE?
- (j) If so, did the municipality in Red Lake rely on Union representatives to determine how much the municipality could expect to receive in incremental property taxes from the Red Lake pipeline project?
- (k) If so, what percentage of the ITE amount did Union predict could be paid using incremental property taxes from the Red Lake pipeline project?
- (l) What percentage of the ITE amount was actually paid using incremental property taxes from the Red Lake pipeline project?
- (m) How much did Union Gas forecast that Red Lake's municipality would receive from incremental property taxes from the Red Lake pipeline project in each year after the Red Lake pipeline project became operational?
- (n) If so, how much did Red Lake's municipality actually receive from incremental property taxes from the Red Lake pipeline project in each year after the Red Lake pipeline project became operational?

CPA Question No. 10

Reference: Page 12, Lines 8 to 19

Union claims that there are a number of advantages to converting to natural gas but provides no discussion of detriments to doing so.

- (a) Are there any detriments to converting to natural gas? Explain.

CPA Question No. 11

**Reference: Page 19, Lines 5 to 11
Page 20, Lines 14 to 19
Appendix C", Page 25, Paragraph 191**

Union acknowledges that the TES amount (\$0.23 per m³) and term (4 years) are not dependant on how many people connect and when they do so. The rate of \$0.23 per m³ is based on a desired payback of 3.75 years. Further, the "TES will be terminated for every customer attached to the project, regardless of when the customer connected to the project."

- (a) If fewer potential customers connect than forecasted, or if they connect later in the TES period than forecasted, who is expected to pay the shortfall – Union shareholders, new customers, or current ratepayers?

- (b) If current ratepayers are expected to bear that financial burden, is there any commensurate financial risk that would be borne by Union shareholders and/or new customers?
- (c) How does the proposed risk allocation reflect the E.B.O. 188 principle (section 6.1.3) that “utility shareholders will be held responsible for any significant variation in the forecast of customer attachments, volumes and costs” – in other words, that Union shareholders, and not current ratepayers, should bear the risk of forecasting errors?
- (d) If Union shareholders will bear that risk, as contemplated by E.B.O. 188 principle, where is that commitment or obligation found?
- (e) Why is a simple payback period of 3.75 years (approximately equivalent to a 26% return on investment) necessary for Union’s proposed new customers? Would Union consider a payback period of 7 to 10 years, or an ROI of 10-15%, to be an unreasonably low return for its proposed new customers? Explain.

CPA Question No. 12

**Reference: Page 22, Lines 1 to 15
Appendix “D”**

Union proposes an ITE that “will be based on the estimated value of incremental property taxes collected from Union as a result of the project for a period of time that matches the term of the TES”. However, there is no specific information about how the ITE would be calculated.

- (a) How would the “value of the incremental property taxes collected from Union” be calculated?
- (b) Based on the answer to (a), how would the ITE amounts then be calculated?
- (c) What aggregate amount of ITE does Union expect to collect for each project?
- (d) How would Union ensure that municipal councils actually pay the ITE in the amount Union seeks, or at all?
- (e) How many of the proposed municipalities have agreed to pay the ITE, and how much has each agreed to pay? Provide evidence of all such agreements.
- (f) If the forecasted ITE is not collected in full for any reason, who will pay for the shortfall – Union shareholders, new customers, or current ratepayers? How is Union’s response to this question consistent with the E.B.O. 188 principle (section 6.1.3) that Union shareholders, and not current ratepayers, should bear the risk of forecasting errors?

- (g) What is the amount of the ITE that will be required for each of (i) the five projects for which Union seeks leave to construct in this Application; and (ii) each of the other projects set out in Appendix “D”?

CPA Question No. 13

Reference: Page 24, Line 12

Union states that it “completed a high level analysis of potential projects identified in the Opportunity Assessment...”, which is shown in Figure 4.

- (a) With respect to the “high level analysis”, provide the complete analysis and raw data that purportedly supports the conclusions in Figure 4.

CPA Question No. 14

**Reference: Page 25, Lines 6 and 7
Page 35, Line 17
Figure 4, Page 25**

The analysis shown in Figure 4 is based on “potential customers”, not expected actual customers. Similarly, at page 35, Union states that “the criteria to be considered for each project will include ... the number of potential customers...”.

- (a) Why does Union consider the maximum number of potential customers in the area to be more relevant than the number of expected or forecasted actual customers when assessing projects?
- (b) Provide a revised Figure 4 that is based on forecasted actual customers instead of potential customers.

CPA Question No. 15

Reference: Page 29, Lines 14 to 16

Union’s analysis states that “completing the five projects would result in Union’s IP decreasing to 1.02 for Union South, which is below the minimum target of 1.1.”

- (a) If there are cost overruns for the projects, what amount of cost overruns would result in Union’s IP for Union South decreasing below 1.0?

- (b) What percentage of forecasted actual customers need to attach to each project in order to prevent Union's IP for Union South from decreasing below 1.0?
- (c) What would Union's IP for Union South be if Union's forecasted actual customers for each project attach one, two, or three years later than forecasted?

CPA Question No. 16

**Reference: Page 31, Lines 18 to 20
Appendix C", Page 25, Paragraph 191**

Union states that its "proposal is consistent with the principle that Gas Distributors should not be exposed to financial risk related to the incremental capital investment required for Community Expansion Projects."

- (a) Where is this principle specified in law, regulations, policy, or any energy board decision?
- (b) Does this principle suggest that Gas Distributors should *never* be exposed to financial risk related to the incremental capital investment required for Community Expansion Projects? If not, then when should Gas Distributors be exposed to such financial risk?
- (c) Advise how this principle is consistent with the principle set out by the OEB in section 6.1.3 of E.B.O 188 that utility shareholders should bear the risk of forecasting errors?
- (d) Does Union accept that if there is a principle that Gas Distributors should not be exposed to financial risk, that it must be balanced by the corresponding principle that a Gas Distributor should not invest in overly risky or unprofitable projects when someone else is bearing all or most of the financial risk?

CPA Question No. 17

Reference: Page 38, Lines 8 to 10

Union assumes an attachment rate of 80% over 25 years and 47% over 10 years in carrying out its Stage 2 analysis: "The attachment rate is 80% of the market potential over an attachment term of 25 years. The 10 year forecast period attachment rate is 47% with the remaining 33% occurring over the following 15 years."

- (a) Provide the data, assumptions, calculations, and any source documents that Union used to determine that the 80% and 47% attachment rates should be used in the Stage 2 analysis.

- (b) Throughout the Application, Union assumes a TES period of four years. However, in the references section, Union cites and considers the 10 and 25 year attachment rates, instead of providing the four year rate. Provide a revised Stage 2 analysis based on attachment and savings applicable over the first four years.

CPA Question No. 18

Reference: Page 38, Lines 4 to 5

Union claims that its Stage 2 analysis shows that potential customers could have net energy savings if they had access to natural gas.

- (a) Provide all data, the source of the data and the calculations and assumptions relied upon, including those involving gas and propane prices, used in the Stage 2 analysis.
- (b) Does the propane price information relied upon by Union in its Stage 2 analysis relate to auto propane (used for vehicles) or heating propane (used for residential and commercial heating purposes)?

CPA Question No. 19

**Reference: Page 38, Lines 16 to 18
Page 39, Lines 4 to 5**

Union states that potential customers could save between \$248 million and \$324 million if they had access to natural gas. Union further states that the total capital investment to provide natural gas is \$150 million. Accordingly, even if new customers paid the full cost of obtaining natural gas service, they would have net savings of approximately \$98 million to \$174 million.

- (a) Why does Union oppose requiring new customers to pay the entire cost of obtaining natural gas, which according to Union's own figures, would still leave them with a net savings of over \$98 million, as opposed to only requiring them to pay some of the costs and requiring existing users to subsidize the remainder?
- (b) Please advise whether Union surveyed potential customers regarding whether they would choose to connect if they had to pay their full share of the capital costs? If so, provide a copy of the survey and the full survey results.

CPA Question No. 20

**Reference: Page 40, Lines 16 to 20
Page 41, Lines 18-21**

To calculate rate impacts, Union included the forecasted contributions associated with TES and ITE contributions. Accordingly, if Union's forecasted contributions are incorrect, current customers (and not Union shareholders) will pay increased rates beyond the rate impacts projected by Union in the Application.

- (a) What principle justifies requiring current customers (and not Union shareholders or new customers) to be exclusively responsible for any shortfall?
- (b) How is this principle consistent with the principle set out by the OEB in section 6.1.3 of E.B.O 188 that utility shareholders should bear the risk of forecasting errors?

CPA Question No. 21

Reference: Page 43, Lines 1 to 3

Union states that "any potential Natural Gas Access Loans and Natural Gas Economic Development Grants received in advance of project construction will be treated as an aid-to-construction and reduce the gross project capital."

- (a) Advise whether the Natural Gas Access Loans and Natural Gas Economic Development Grants will accrue solely to the benefit of current ratepayers, and not to reduce the TES, TCS or ITE or their transition periods.

CPA Question No. 22

**Reference: Page 44, Lines 15 to 17
Page 45, Table 8, Table 5
Schedule 2 to each Leave to Construct Application**

Union bases its Application on attachment forecasts which it claims are based in part on phone surveys and community leader discussions. Union has not provided any survey questions, copies of surveys, actual data arising from the surveys, any description of those targeted for surveys, any description of those who responded to surveys, or response rates. Nor has any supporting information been provided regarding the scope or content of their discussions.

- (a) Provide all survey questions, copies of surveys, actual data arising from the surveys, demographic descriptions of survey respondents, descriptions of those called, survey response rates, discussion notes and engagement logs related to the discussions cited by

Union, and any other evidence and background information to support the purported attachment forecast conclusions reached by Union and relied upon in the Application, including the five Leave to Construct Applications; all to the extent that such information is not already provided in response to CPA Question No. 1.

CPA Question No. 23

Reference: Appendix “D”, 4th column

The “potential customer” figures cited by Union appear to differ from the customer populations of the relevant communities. Union has not provided any description or explanation of how it identified or determined potential customers.

- (a) Explain how Union identified and determined “potential customers” for each project.

CPA Question No. 24

Reference: Appendix “H”, Page 4, Lines 5 to 6

Union’s proposed Guidelines require PI to be equal to or greater than 0.4 “including any customer and municipal contributions”. Projects could, therefore, meet the proposed guidelines with a PI of almost nil and Union could simply charge TES and ICT in order to bring it up to 0.4.

- (a) What is the basis for eliminating the PI requirement, instead of requiring a starting PI of 0.4 before applying the TES of ICT (which could be used to bring the PI up to 0.8 or higher)?

CPA Question No. 25

Reference: Appendix “J”, Line 12 and Note (6)

The revenues added at Line 12 of the table are said to be “incremental revenues associated with forecast customer attachments based on an average Union North and Union South residential and commercial customer.”

- (a) Provide the data and formulas used to calculate, and the calculations for, the estimated Incremental Revenue for the 30 projects.

CPA Question No. 26

Reference: Appendix “K”

Union has capped the TES at \$0.23 per m³, which is based on its attachment forecast. However, if the attachment forecast is wrong, then TES revenue will be higher or lower, and therefore the rate increase for current customers (e.g. M1, M2) will not be as set out.

- (a) Provide a range of attachment scenarios (percentage and timing) and the corresponding range of rate impacts, with appropriate explanations and supporting data.

CPA Question No. 27

Reference: KPMG Report “Jurisdictional Review of Natural Gas Distribution System Expansions” posted by OEB on March 31, 2015 in EB-2015-0156

According to the KPMG Report filed by the OEB as part of its Natural Gas Expansion Policy Consultation, in New Brunswick, Enbridge forecasted 70,000 attachments in 23 communities. Fifteen years later, it has 12,000 customers in 10 communities; its attachment forecasts were off by 83%. In Maine, SNG forecasted that it would serve 15,000 customers, but it serves only 3,000; its attachment forecasts were off by 80%.

- (a) Why does Union believe its forecasting ability is at least 80% more accurate than Enbridge’s and SNG’s?