January 11, 2018

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

COURIER & RESS

Dear Ms. Walli:

Re: South Bruce Expansion, Board File Nos. EB-2016-0137/0138/0139 –
Union Gas Ltd. Common Infrastructure Plan ("CIP") Proposal – Interrogatory Responses

Pursuant to the Ontario Energy Board's (the "Board") Procedural Order No. 9 in the above-noted proceeding, please find attached Union's responses to the interrogatories on its CIP proposal to serve the area covered by the South Bruce Applications.

If you have any questions with respect to this submission please contact me at 519-436-5473.

Yours truly,

(Original signed by)

Karen Hockin
Manager, Regulatory Initiatives

Cc: Charles Keizer, Torys
Mark Kitchen, Union

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal / p. 18 / Table 7

Preamble:
In Table 7, Union Gas provided a ten-year forecast of customer attachments by customer class.

a) What are Union Gas' total market size and assumptions for each customer class?

b) Please provide separate counts of the forecast commercial, agricultural and large industrial customer attachments over the 10-year period. For industrial customers, please provide your assumed:
   i. number of industrial customers,
   ii. number of agricultural customers, and
   iii. average volume for industrial customers.

c) Please provide the customer attachment rates used in your original bid and the percentage breakdown between residential, commercial, industrial and agricultural customers as applicable.

Response:

a) – c) Table 1 provides the Potential Customers (market size) for Union's CIP proposal, along with forecasted connections.

Table 1

Segment	**Potential Customers**	**Forecast Customers**	**Forecast Segment Size**	**Forecast Penetration**
Residential	8,908	6,357	93%	71%
Commercial- General	511	368	5%	72%
Commercial- Agricultural	179	128	2%	72%
Industrial- Small	1	1	0%	100%
Industrial- Large	2	2	0%	100%
Total	**9,601**	**6,856**	**100%**	**71%**

Agricultural customers in the table include direct farming related businesses. The majority of these are cash crop farms, although several larger farming operations like dairy farms or grain drying operations are also included. Union has not attempted to separate other agriculture support related businesses (for example farm equipment suppliers) from commercial customers in the table.

Large Industrial customers in the table include those who would be eligible for service in one of Union's current contract rate classes, which require the customer to contract for a daily demand capacity as well as an annual minimum volume. As noted in its CIP proposal[1], Union has entered into a 15 year contractual agreement with the largest of these two customers. The forecasted volumes for this customer for each year in Union's CIP proposal are based on direct consultation with the customer. It is Union's understanding that EPCOR does not have a contract with this industrial customer.

The average annual volume per customer for the three Industrial customers is 16.970 million cubic meters per year.

Union notes that it has committed to service a larger market area than that estimated by EPCOR. The most significant difference in the market sizes defined by the two proponents appears to be a result of several built-up residential areas that Union plans to service, but which do not appear to be serviced in EPCOR's CIP proposal[2]. These include:

- Most streets in Inverhuron, with the exception of Albert Road, including those in Column A in Table 2 below,
- Streets extending to the west of Bruce Road 23, north and south of Concession 5, Kincardine, including those in Column B in Table 2 below, and
- Streets west of Lake Range Drive between Concession 6 West and Concession 10, Huron-Kinloss Township, including those in Column C in Table 2 below:

[1] Union CIP Proposal, p.20.
[2] Based on a comparison of Schedule 2 in Union's CIP proposal to Schedule B in EPCOR's proposal.

Table 2

A (Inverhuron)	**B** (West of Bruce Rd 23)	**C** (West of Lake Range Dr.)
Lake Street John Street Wood Street Cayley Street Wellington Street Victoria Street Daniel Street Whisper Lane Robbie Lane Whispering Woods Ruff Road Huron Street Cedar Drive Applewood Road Maplewood Road Cherrywood Road Cedarwood Road Richards Drive Pine Street Bruce Rd. 15 (between Bruce Rd. 23 and Albert Rd.)	Wickham Cove Lane Dawson Drive Craig Drive Whippoorwill Lane Sandpiper Lane McConnell Drive Stewart lane Verna Lane Spark Lane Mitchell Drive Ackert Lane Harvey Lane Stoney Island Crescent Rowan Ave MacLeod Drive Centre Ave Edgemere Ave Con. Rd. 5 (between Bruce Rd. 23 and Mitchell Dr.)	Touts Grove Hill Ball Park Lane Snowden Lane Daveys Lane Tennis Lane Camerons Lane Bruce Beach Road (between Con. 6 and 10) Highland Drive

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Calculation of comparison criteria in EPCOR and Union CIPs – beginning of 10 year rate stability period.

Preamble:
For each of Union and EPCOR's CIPs, the parties did not agree, and the Board did not specify, when during the project life the 10-year rate stability period should begin. As such, options include at the start of project construction, or when the first customer is attached. In EPCOR's CIP, the 10-year stability period was started as of January 2019, the year when construction began as EPCOR will have an approved tariff at that time. As a result, for the first year of the project (2019), EPCOR only included industrial volumes for the two last months when the system was in service. This means that over the 10-year rate stability period EPCOR has 110 months of industrial customer volume included in its total volume values. It appears that Union started its 10-year period when the system was in service. As a result, Union appears to have 120 months of industrial customer volume in its total volume values. This will result in two of the three metrics agreed to between the parties – cumulative 10 year revenue requirement per unit of volume and cumulative 10 year volume – are not using the same number of months over which industrial volume is accumulated when calculating the metric.

For residential and commercial customers there appears to be no misalignment on the volumes between EPCOR and Union as both EPCOR and Union agreed on the common assumption that residential and commercial customers will be connected at midyear for volume calculation purposes. In order to ensure the agreed to metrics are directly comparable, EPCOR proposes that it recalculate its metrics using the same timing assumption that Union appears to have used by starting the 10 year rate stability period at the time of initial customer attachment.

Please confirm the point of time in the project that the 10-year rate stability period begins. If you did not begin the 10-year rate stability period at the time of initial customer attachment, please recalculate the metrics below using that assumption. All other assumptions used in the CIP should remain unchanged:

a) Net Present Value (NPV) of 10-year Revenue Requirement
b) Cumulative 10 year Revenue Requirement
c) Cumulative 10 year Revenue Requirement per Unit of Volume
d) Customer Years
e) Cumulative 10 year Volume

Response:

Union and EPCOR (based on the preamble to this question) each applied the same rate stability term for the revenue requirement, which is 10 calendar years beginning January 1, 2019, with an in-service date of November 1, 2019. For both CIP proposals, the revenue requirements represent a billing period of 110 months.

Based on the above, treatment of the revenue requirements as filed in both EPCOR's CIP proposal and Union's CIP proposal is consistent, and as such, the revenue requirements from each proposal as filed are directly comparable. Because the rate stability periods for the competing CIP proposals are consistent Union has not recalculated the metrics noted in the question parts a) and b).

Although Union applied the revenue requirement based on calendar years, upon review Union did in fact apply volumes in its CIP proposal on the basis of "project years". A project year is a 1 year period beginning at the date the project enters service. Recognizing an apparent inconsistency in the time periods applicable to volumes, to assist the Board, Union's has provided not only metric results based on the "as filed" data, but also calculations that incorporate volumes adjusted to reflect 10 calendar years (110 months) for questions 3 and 4. This will provide the Board the opportunity for direct comparison to EPCOR's filed CIP parameters when other inconsistencies in how volumes were applied are cleared up[1].

[1] Refer to Exhibit I.Union.4c) for details on other inconsistencies.

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Calculation of comparison criteria in EPCOR and Union CIPs – beginning of 10 year rate stability period.

Preamble:

In s. 3, Union Gas reported the results for each of the three metrics resulting from its CIP proposal.

a) Using the information provided in the CIP proposal, calculate and provide the following metrics.
   i. NPV of 10-year Revenue Requirement per Metre of Pipe ($/m)
   ii. Average Number of Customers per Kilometer (customers/km)
   iii. Cumulative 10-yr Revenue Requirement per Unit of Volume ($/m3)

b) If Union Gas' customer attachment rates are materially different than 60% residential and 65% or commercial customers, then use these rates to recalculate and provide the following metrics and CIP criteria (at an average consumption of 11,144 m3 for all Commercial Customers). When recalculating the following metrics and CIP criteria, all other assumptions used in Union's CIP should remain the same (e.g. timing of customer attachments).
   i. Net Present Value (NPV) of 10-year Revenue Requirement
   ii. Cumulative 10-year Revenue Requirement
   iii. NPV of 10-year Revenue Requirement per Metre of Pipe ($/m)
   iv. Average Number of Customers per Kilometer
   v. Cumulative 10-yr Revenue Requirement per Unit of Volume ($/m3)
   vi. Customer Years
   vii. Cumulative 10-yr Volume

c) Assuming no industrial customers (and the associated pipe used to directly connect the industrial customers and associated volumes, with all other assumptions remaining the same), recalculate and provide the metrics and CIP criteria listed in a) and b) above. For clarification, the OEB is not seeking a complete redesign of the system in terms of pipe diameter, material, etc. In cases where the industrial customer is at the tail end of a pipeline, remove that portion of pipeline and recalculate the metrics and CIP criteria keeping all else unchanged.

Response:

Union has interpreted "pipe" in the question to be supply and distribution mains constructed for the project. For clarity, length of service lines required to connect each customer to the system has not been included in pipe lengths used in the calculations below. In its responses below, in order to be helpful to the Board, Union has provided the metric results for both its CIP proposal as filed, and for its CIP proposal with an adjustment to prorate volume to 10 calendar year periods (as requested in the question at Exhibit I.Union.4).

a) The requested metrics for Union's CIP proposal are provided in Table 1 below.

Table 1: Additional Metrics

Metric	Volume (10 Project Years As Filed)[1]	Volume Adjustment to 10 Calendar Years[2]
NPV of 10-year Revenue Requirement per Metre of Pipe	$171.76/m	$171.76/m
Average number of Customers per kilometre	21.3	21.3
Cumulative 10-Year Revenue Requirement per Unit of Volume	$0.2223/m^3	$0.2444/m3

b) Union's forecasted customer attachment rates are 71% for residential and 72% for commercial, as provided in Table 1 at Exhibit I.Union.1. These rates are not materially different than EPCOR's forecasted customer attachment rates, and for this reason Union has not recalculated the metrics. Union's forecasted attachment rates are consistent with other projects approved by the Board[3], and Union is committed to the volumes resulting from attaching the forecasted number of customers.

c) Union has provided the requested metrics in Table 2 below. Cost reductions related to the reduced number of services or elimination of entire sections of main if appropriate have been included in the calculations for each metric.

Union's CIP proposal forecasts three industrial loads, two of which would qualify as contract rate customers. The other would be a general service customer. Volumes for all three have been excluded for purposes of calculation of metric results below.

[1] Metric results based on volume period for original filed CIP, as requested.
[2] Metric results with volume correction as per Question 4.
[3] Attachment rates for the four projects approved in EB-2015-0179 average 74% (1,432 of 1,939 potential customers forecasted to connect). These projects included Kettle and Stony Point First Nation and Lambton Shores, Milverton Rostock and Wartburg, Delaware Nation of Moraviantown, and Prince Township.

Table 2: Metrics with Industrial Loads Removed

Metric	Volume 10 Project Years (As Filed)	Volume Adjustment to 10 Calendar Years
NPV of 10-year Revenue Requirement per Metre of Pipe	$170.590	$170.590
Average number of Customers per kilometre:	21.4	21.4
Cumulative 10-Year Revenue Requirement per Unit of Volume	$0.4759/m^3	$0.5290/m^3
NPV of 10-Year Revenue Requirement (million)	$54.640	$54.640
Cumulative 10-Year Revenue Requirement (million)	$69.344	$69.344
Customer Years	54,141	54,141
Cumulative 10-Year Volume (million)	145.702 m^3	131.083 m^3

Costs for 1.4 km of main to service the industrial subdivision in which two of the industrial loads are located have been deducted in determining the metrics above. As requested, Union has not re-estimated costs for other changes to the pipeline system design (reduced main sizes) in calculating the results for each metric. The changes in system design resulting from the elimination of large industrial loads would be significant. Approximately 31 km of NPS 8 steel pipeline would be downsized to NPS 6, and a further 2 km downsized to NPS 4.

Union notes that EPCOR has also been asked to provide a calculation of metrics with Industrial customers removed. Union is concerned that the basis for volume related metrics for the two proposals with Industrial customers removed will remain inconsistent, unless it can be confirmed that volumes for all non-industrial customers are all stated in measured (consumed) volume terms as opposed to some (for example large Agricultural customers) being based on capacity expected to be under contract. Union confirms its volume figures are all stated in measured volume terms.

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal / p. 6 / Table 1, p. 18 /Table 7, p. 19 / Table 8, Schedule 5; EPCOR's CIP Application / Schedule C / p. 2

Preamble:
In Schedule 5 of Union's CIP, it indicates that phase one of the system will be in service in November 2019. As noted in Schedule C of the joint letter of EPCOR and Union filed with the Board on October 2, 2017, the parties have agreed that the volume recorded for industrial customers will reflect the date a particular industrial customer is forecast to be connected to the system. Table 7 indicates that the three industrial customers served by Union are attached in year 1. The industrial customer volume for year 1 is forecast at 16,596,000 m3 which suggests those customers are connected at the beginning of year 1 as annual industrial volume does not increase materially in year 2 and beyond. There are also 1,507 residential and 105 commercial customers attached in year 1. Given the above volume forecast there is an apparent disconnect when linking theses volumes with the revenue requirement for the 12 months of year 1 which is forecast to be $471,000. The revenue requirement in year 2 is forecast to be $5,234,000 (an increase of 1,000%) and increases annually from that value. It appears that the revenue requirement for year 1 is not aligned with having all industrial customers connected for a full year plus residential and commercial customers connected within that year.

a) Please confirm the time period for year 1, including the start and end month and year.

b) Please provide a detailed explanation as to why the revenue requirement for year 1 is materially different from year 2. The response should include an explanation as to the material drivers for the increase in the revenue requirement from year 1 to year 2.

c) Please recalculate the revenue requirement and/or forecasted volumes for year 1 taking into account the length of time that the system is in service (including Industrial Customers) for that year. Using that value, recalculate the following CIP metrics, keeping all other assumptions constant:
    i. Net Present Value (NPV) of 10-year Revenue Requirement
    ii. Cumulative 10 year Revenue Requirement
    iii. Cumulative 10 year Revenue Requirement per Unit of Volume
    iv. Customer Years
    v. Cumulative 10 year Volume

Response:

a) The time period for year one revenue requirements in Union's CIP proposal is January 1, 2019 to December 31, 2019, with an in-service date of November 1, 2019. The time period for year one volumes as provided in Union's CIP proposal is November 1, 2019 to October 31, 2020.

b) Revenue Requirements in Union's CIP proposal are based on the assets being in-service for two months in calendar year one (2019) and for 12 months in calendar year two (2020), which results in the significant change in annual revenue requirement from year one to year two. The gross revenue requirement for the first year reflects the return and operating expenses for the months the asset is in service, plus six months of depreciation (half year rule for the year asset additions enter service), compared to full 12 month revenue requirements for these items in year two. The tax implications for the calendar year that the system enters service include the IDC, which is tax deductible in the first calendar year, and the CCA, which is based on the half year rule. The CCA half year rule is the equivalent of six months of tax deduction consistent with the depreciation calculation. The operating expenses are also rising in year two representing 12 months operating costs (as opposed to two months in year one) plus the additional costs for the customers added in year two.

c) Union has recalculated the metrics as requested based on an adjustment to volumes to synchronize the revenue requirement time periods and the volume time periods. Results are provided in Table 1 below.

Table 1: Restated Metrics

Metric	**Term 10 Calendar Years**	
	As Filed[1]	**As filed with Volume Adjustment**[2]
NPV of 10-year Revenue Requirement (millions)	\$55.255	\$55.255
Cumulative 10-year Revenue Requirement (millions)	\$70.114	\$70.114
Cumulative 10-year Revenue Requirement per Unit of Volume	\$0.2223/m^3	\$0.2444/m^3
Customer Years	54,171	54,171
Cumulative 10-year Volume (10^3 m^3)	315, 403	286,910

There are two key differences in how each proponent treated volumes in their CIP proposals. First, Union interpreted volume to be the amount of gas consumed or measured through the meter, whereas EPCOR only used this approach for mass market customers. For other customers, who are expected to enter into capacity based contracts for service, EPCOR based

[1] Original filed CIP Metrics, provided for comparison purposes.
[2] The volume adjustment aligns Union's as-filed CIP volumes with a 10 calendar year period beginning at in-service date.

their volumes on the annual capacity expected to be under contract. Secondly, EPCOR calculated forecast volumes for a 110 month period that coincides with their revenue requirement period, whereas Union forecasted volumes for a full 120 month period with each annual period beginning on November 1. Both of these differences have an impact on several of the comparative metrics agreed to between the parties[3]. Because of the differing interpretations of how volume was to be applied in the CIP proposals, Union reiterates its position that volume related parameters and metrics should be disregarded by the Board in its decision on the successful proposals[4]. Although Union was unaware of the second difference in how volumes were treated at the time the referenced letters were filed with the Board, this difference further supports Union's position.

For clarity, the volume correction Union is making as requested is as follows:

1. Industrial customers are assumed to have consistent monthly volume so the November-December volume will be 2/12ths of the project year volume used in Union's CIP proposal.
2. All other customers are heat sensitive and the months of November and December are approximately 25% of the NAC usage. Union is applying 25% of project year volume to Nov-Dec period. Union is unaware of whether EPCOR has adjusted year one mass market volumes to reflect this in its CIP proposal as submitted. If not, this would lead to an overstatement of volume in year one, and a further inconsistency in how volumes are treated in the competing CIP proposals.
3. Attachment 1 provides details on calculations to translate the project year volumes to calendar year for the CIP bid. As can be seen in Attachment 1, the cumulative volume over 10 project years is the same as when it is defined as 120 months applied over 11 calendar years (315,403 $10^3 m^3$) .

If the Board is intending to consider volume parameters in its determination on the successful proponent, in Union's view the most appropriate time parameter is 10 calendar years with adjustments to the volumes filed as noted above. To do otherwise (e.g. adjust revenue requirements to reflect a 120 month period) would be the equivalent of each party extending the term of the revenue requirement. This would require adding revenue requirements from Calendar year 11, which were not included in the filed CIP proposals by either party. This approach would in effect allow the opportunity for either proponent to re-bid the CIP metrics after having full knowledge of most of the competing proposal.

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[3] Cumulative 10 year revenue requirement per unit of volume, and cumulative 10-year volume, are affected.
[4] As outlined in letters filed by Union with the Board on October 20, 2017, and October 25, 2017. Please see Attachment 2 and Attachment 3 for a copy of these letters.

Details on Calculation Comparing Project Year and Calendar Year Volumes

Line		Unit	Total	1	2	3	4	5	6	7	8	9	10	11
1	Project Year Periods for Volume Used in CIP Bid	Begin		01 Nov 19	01 Nov 20	01 Nov 21	01 Nov 22	01 Nov 23	01 Nov 24	01 Nov 25	01 Nov 26	01 Nov 27	01 Nov 28	01 Nov 29
2		End		31 Oct 20	31 Oct 21	31 Oct 22	31 Oct 23	31 Oct 24	31 Oct 25	31 Oct 26	31 Oct 27	31 Oct 28	31 Oct 29	31 Oct 30
3	Volume as used in CIP Bid	10^3 m^3	315,403	19,124	25,493	29,319	31,684	33,109	33,873	35,574	35,473	35,600	36,154	
4	Cumulative Volume used in CIP Bid			19,124	44,617	73,936	105,620	138,729	172,602	208,176	243,649	279,249	315,403	315,403
5	Calendar Year Period for RevReq	Begin		01 Nov 19	01 Jan 20	01 Jan 21	01 Jan 22	01 Jan 23	01 Jan 24	01 Jan 25	01 Jan 26	01 Jan 27	01 Jan 28	01 Jan 29
6		End		31 Dec 19	31 Dec 20	31 Dec 21	31 Dec 22	31 Dec 23	31 Dec 24	31 Dec 25	31 Dec 26	31 Dec 27	31 Dec 28	31 Dec 29
	Adjusted Calendar Yr Volumes used in CIP Bid													
6	Month 1 to Month 10	10^3 m^3	250,589	-	15,721	20,591	23,404	25,140	26,209	26,782	28,152	28,020	28,077	28,493
7	Month 11 to Month 12	10^3 m^3	64,813	3,403	4,902	5,915	6,543	6,900	7,091	7,422	7,453	7,522	7,661	-
8	Calendar Yr Volume	10^3 m^3	315,403	3,403	20,622	26,505	29,948	32,040	33,300	34,204	35,605	35,542	35,738	28,493
9	Cumulative Calendar Yr Volume	10^3 m^3		3,403	24,026	50,531	80,479	112,519	145,820	180,024	215,629	251,172	286,910	315,403
10	Difference Line 3 vs Line 8		-	15,721	4,870	2,814	1,736	1,069	573	1,370	(132)	57	415	(28,493)
11	Difference Line 4 vs Line 9			15,721	20,591	23,404	25,140	26,209	26,782	28,152	28,020	28,077	28,493	-

October 20, 2017

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

COURIER & RESS

Dear Ms. Walli:

Re: South Bruce Expansion – CIP Proposals (Board File Nos. EB-2016-0137/0138/0139) – Union Gas Ltd. Correspondence

Consistent with the direction noted in the Ontario Energy Board's (the "Board") Decision on Preliminary Issues and Procedural Order No. 8 (dated August 22, 2017), both Union and EPCOR submitted Common Infrastructure Plan ("CIP") Proposals to serve the area covered by the above-noted applications. These CIP Proposals were submitted in confidence October 16, 2017 and the following day the Board made them publicly available.

Union has had an opportunity to review the Proposals and notes an apparent inconsistency that it wishes to raise to the Board. In preparing the CIP proposals, a considerable amount of time was spent by both proponents and the Board to not only define but agree upon certain common parameters to be used in the CIP proposals. Despite these efforts, there appears to be different interpretations of how the term "volume" is defined.

Union defined volume as the amount of gas that would flow through the meters. This definition applies to all customers. Conversely, it appears EPCOR has applied this definition only to mass market customers (using the agreed upon NAC). For large agricultural and industrial customers, EPCOR stated that it used "*capacity under contract*[1]" to define volume and under the heading "EPCOR Planned Cumulative Volume" EPCOR stated that "*volumetric customers include forecasted natural gas annual usage whereas capacity contracts would use the full annual capacity*[2]".

These contrasting definitions create a misalignment for comparison purposes between key comparison metrics noted in the CIP proposals including Cumulative 10 Year Volume and Cumulative 10 Year Revenue Requirement per unit of volume. This results in an 'apples to oranges' comparison. In order to ensure an appropriate comparison, Union is of the view this area of confusion requires further investigation. For example, this could be accomplished through a form of interrogatory process.

[1] EPCOR CIP Proposal, p.15, para. 6
[2] EPCOR CIP Proposal, p.31, para. 3

Union thought it appropriate to highlight this area of confusion in advance of the Board issuing a Procedural Order identifying the next steps in this process.

If you have any questions with respect to this submission please contact me at 519-436-5473.

Yours truly,

(Original signed by)

Karen Hockin
Manager, Regulatory Initiatives

Cc: Charles Keizer, Torys
Mark Kitchen, Union
Bruce Brandell, EPCOR Southern Bruce Gas Services
Richard King, Osler
Britt Tan, EPCOR Utilities Inc.
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October 25, 2017

COURIER & RESS

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

Dear Ms. Walli:

Re: South Bruce Expansion – CIP Proposals (Board File Nos. EB-2016-0137/0138/0139) – Union Gas Ltd. Correspondence regarding process

This correspondence is further to Union Gas Limited's ("Union") and EPCOR's correspondence both dated October 20, 2017.

In its letter, Union confirmed that it defined 'volume' as the amount of gas that would flow through the meters or be consumed by the customer whereas EPCOR has applied this definition only to mass market customers (using the agreed upon NAC). For large agricultural and industrial customers, EPCOR stated that it used "capacity under contract[1]" to define volume and under the heading "EPCOR Planned Cumulative Volume" EPCOR stated that "volumetric customers include forecasted natural gas annual usage whereas capacity contracts would use the full annual capacity[2]". Union also indicated that the contrasting definitions of "volume" create a misalignment for comparison purposes between key comparison metrics noted in the CIP proposals including Cumulative 10 Year Volume and Cumulative 10 Year Revenue Requirement per unit of volume, with the result being an 'apples to oranges' comparison.

EPCOR in its letter confirmed these different approaches and offered to provide, if asked, consumption numbers for the customers in question and reflect these in the two key metrics – i.e. the cumulative 10-year revenue requirement per unit of volume and the cumulative 10-year volume.

EPCOR's proposal to provide consumption figures for these customers at this time is inconsistent with and would bring into question the integrity of the competitive process. In doing so, EPCOR would be permitted to restate and resubmit certain competitive numbers with full knowledge of Union's competitive proposal information, since "capacity" and volumetric amounts are two different concepts and the volumes in question are not formulaic in their derivation. In other words, EPCOR would be permitted to adjust volumes for these customers with full knowledge of Union's competing submission. It would be inappropriate to allow

[1] EPCOR CIP Proposal, p. 15, para. 6
[2] EPCOR CIP Proposal, p. 31, para. 3

EPCOR to resubmit a part of its competitive proposal for purposes of evaluation where that party has full knowledge of the other's proposal.

Furthermore, unlike capacity, Union's definition of "volume" (metered flow) is wholly consistent with the CIP parameters as established by the Board. Board Staff's wording in their July 20, 2017 Progress Report to the Board states on p. 5 Item 3:

> *3. **Cumulative volume** (m3) – the cumulative volume of **throughput** per year, over the ten-year rate stability period. This metric would be calculated in a similar manner to the second criteria, but **based on the volume consumed by the customers** to better depict the various customer classes and their demand....*[3]

In addition, at p. 6 of their Progress report, under the heading Customer Consumption, Board Staff noted:

> *Proponents agreed that **consumption levels forecast** for any large commercial or industrial customers should not be set in common, but rather left to competition in each proponent's proposal.*

Pursuant to the Board's Decision on Preliminary Issues and Procedural Order No. 8, the Board accepted the agreed upon parameters set out in Board Staff's Progress Report.[4]

Throughout this proceeding, volume has been consistently referred to as meaning 'consumption' or 'throughput' and at no time did any party talk about using "capacity" as a metric. It is not appropriate, after the fact, to create a new definition of volume for purposes of evaluation. If Union had known the definition was to be changed to capacity rather than consumption, it would have bid differently. Furthermore, it would also be inappropriate to rectify the difference in definitions by a resubmission when both confidential proposals have been made public.

Based on the foregoing, Union submits that the Board should give no weight to the volume metrics provided in the proposals. Doing so does not harm the integrity of the process as the Board has a number of other key measures established by it on which it can rely, including:

1. Cumulative Annual Revenue Requirement,
2. Present Value of the Revenue Requirement, and
3. Number of Customer Attachments.

The Board requested the submission of these key measures and they were provided by both parties in their proposals. These measures are most relevant in terms of cost to serve the customers, which the Board indicated is their main concern and focus in terms of the competitive process.

If you have any questions with respect to this submission please contact me at 416-865-7512.

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[3] Notwithstanding its use of capacity as a basis, EPCOR appears to agree with this as it defines the Cumulative Volume metric as "the volume consumed by customers", EPCOR CIP Proposal, p.14, para. 4
[4] Decision on Preliminary Issues and Procedural Order No. 8, p. 3 "A full description of the parameters that were agreed upon can be found in the OEB Staff Report filed on July 20, 2017. The OEB has summarized the agreed upon parameters below and finds that they are appropriate"

Yours truly,

(Original signed by)

Charles Keizer

cc: Karen Hockin, Union
Mark Kitchen, Union
Bruce Brandell, EPCOR Southern Bruce Gas Services
Richard King, Osler
Britt Tan, EPCOR Utilities Inc.
Intervenors

UNION GAS LIMITED

Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal / Tab 5 / p. 6

Preamble:

On page 6 of 35 of its CIP proposal, Union has identified CIP Comparison Criteria as follows:

Year	Annual Revenue Requirement ($000's)	Cumulative Volume (10^3m^3)
1	471	19,124
2	5,234	44,617
3	7,361	73,936
4	7,801	105,620
5	8,030	138,729
6	8,143	172,602
7	8,205	208,176
8	8,252	243,649
9	8,293	279,249
10	8,327	315,403

a) Please provide further information regarding Union's forecasted Annual Revenue Requirement as compared to its forecasted Cumulative Volume since the volumes provided do not reflect the corresponding revenue requirement.

b) Do the large increase in Annual Revenue Requirement year over year indicates that Year 1 may be considered a partial service year? If Year 1 is not a partial service year, please explain the reason for the increase after Year 1.

Response:

a) As noted in the response at Exhibit I.Union.2, for revenue requirement purposes Union applied a time period that coincides with calendar years. This is directly comparable to EPCOR's revenue requirement time period. For purposes of volume calculations Union applied a time period based on project years. The response at Exhibit I.Union.4c) provides metric results based on volume time periods being aligned to the revenue requirement periods.

b) Yes, the revenue requirements in year one are based on a partial service year. See the response at Exhibit I.Union.4b).

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal, EPCOR CIP Proposal / Tab 5 / p. 26

Preamble:
In Procedural Order No. 8 for these proceedings, the OEB reaffirmed the principle of fully allocated costs as set out in the Generic Decision in EB-2016-0004, which prevents cross-subsidization of new expansion customers by current ratepayers. In page 26 of EPCOR's CIP, EPCOR confirms alignment with the Board's direction for fully allocated costs, and provides its methodology of ensuring full costs are borne by Southern Bruce ratepayers fairly and equitably. While in its CIP Union affirms the use of common assumptions, on a number of matters, there is no confirmation of the use of fully allocated costs. Given the importance of this principle and the material impact it could have on the economics of system expansion and on current customers there should be direct confirmation of the use of fully allocated costs.

Please confirm that when determining the revenue requirement for each year of your CIP all O&M costs were determined using the principle of fully allocated costs. Provide detail as to how this principle was adhered to when calculating these costs.

Response:

Union confirms that the derived distribution costs are based on Union's 2013 OEB-approved fully allocated cost study. The OM&A costs include distribution, general operating and engineering, sales and marketing and customer accounting costs.

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal / pp. 32-33

Preamble:
Union is committed to building long-term productive relationships with members of the First Nation and Métis communities based on mutual respect and economic opportunity.

a) What impacts will Union's proposal have on the provision of natural gas to Saugeen Ojibway Nation reserve communities and off-reserve members in the region?

b) What impacts will Union's proposal have on the cost of natural gas to Saugeen Ojibway Nation reserve communities and off-reserve members in the region?

Response:

a) Union has investigated the feasibility of a project to provide service to the southern portion of Saugeen Ojibway Nation, which is located approximately 27 km north of the area to be serviced by the South Bruce project. Union's investigation determined that the optimal natural gas supply point for a project to service Saugeen Ojibway Nation would be located at a point on Union's existing system approximately 9 km south of First Nation lands. This connection point is significantly closer to First Nation lands than the South Bruce project. For this reason, any project to provide service to Saugeen Ojibway Nation would be completely independent of the South Bruce project, and as such, Union's South Bruce proposal would have no impact on that project.

   "Off-Reserve" members of Saugeen Ojibway Nation who reside or operate businesses within the areas to be serviced by the South Bruce project will have the same opportunity to be served with natural gas as other potential customers in the project area.

b) The South Bruce project will have no impact on the cost of natural gas to First Nation communities, since projects to serve the two areas are not co-dependant. "Off-Reserve" members of Saugeen Ojibway Nation who reside or operate businesses within the areas to be serviced by the South Bruce project will have the same natural gas costs and savings opportunities as other potential customers in the South Bruce project area.

UNION GAS LIMITED
Answer to Interrogatory from the Board dated December 22, 2017

Reference: Union Gas' CIP Proposal

a) If Union were to be selected as the successful proponent, how soon after would Union commit to submitting its Leave to Construct application with the Board?

b) Please elaborate on what outstanding activities Union needs to undertake, including the EIA and community consultation process, to be in a position to submit an LTC Application.

Response:

a) Union would be in a position to submit a Leave to Construct Application within two months following a Decision by the Board.

b) Most components of the Leave to Construct Application are complete. Union is currently in the process of finalizing both the community and Indigenous consultation requirements for the South Bruce project. The Environmental Assessment and OPCC review can be completed in two months. As well, once awarded the project, Union will be meeting with local municipal officials in the communities to discuss Franchise Agreements, Certificate of Public Convenience and confirm the running lines for the proposed facilities. Union has shared its plans at a high level with the general community but has not engaged municipal officials to date on this project due to the competitive process.