

June 16, 2016

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

Dear Ms. Walli:

**RE: EB-2016-0118– Union Gas Limited
2015 Disposition of Deferral Account Balances and Earnings Sharing Amount -
Interrogatory Responses**

Please find attached Union's responses to the interrogatories received in the above proceeding. As requested in Exhibit B.FRPO.3, question 3a), Union has sent an electronic copy of Exhibit B.FRPO.3, Attachment 2 directly to FRPO.

In the event that a hearing is required, Union requests that the hearing be a written proceeding.

If you have any questions with respect to this submission please contact me at (519) 436-5476.

Yours truly,

[Original signed by]

Chris Ripley
Manager, Regulatory Applications

cc: Crawford Smith, Torys
All Intervenors

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 1, p. 6

Preamble: Table 2 provides the net Unabsorbed Demand Costs (UDC) incurred by Union in 2015.

- a) Please provide a breakdown of the cost and revenue items included in Table 2 by operational area.

Response:

- a) As indicated at Exhibit A, Tab 1, p. 7, the UDC costs are allocated to Union North and Union South in proportion to the actual excess supply and costs incurred for UDC for each respective area. Please see the table below for the breakdown of the cost and revenue items by operational area.

UDC Costs Incurred by Operational Area				
Line No.	Particulars (\$000's)	Union North	Union South	Total Costs
1	UDC Costs Incurred	7,888	2,017	9,905
2	Released Capacity Value	(2,688)	(572)	(3,260)
3	CTHI/CPMI Contracted Capacity Credit	(618)	-	(618)
4	Net UDC Costs (Credit)	4,582	1,445	6,027

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 1, pp. 8-9
Exhibit A, Tab 1, Appendix A, Schedule 2

Preamble: Union noted that the 2015 upstream transportation optimization revenue forecast, approved by the OEB, is \$14.918 million. 90% of that amount (\$13.426 million) was to be credited to ratepayers in 2015 rates. However, on an actual basis, Union credited \$15.565 million to ratepayers in 2015 as Union's actual sales service volumes exceeded the forecast sales service volumes. Union noted that this is consistent with the method approved by the OEB in its EB-2011-0210 Decision and Rate Order.

The balance in the Upstream Transportation Optimization Deferral Account is a debit of \$8.6 million. This is the difference between the \$15.565 million credited to ratepayers in 2015 rates for optimization revenue and 90% of the \$7.739 million of actual optimization revenue generated in 2015 (\$6.965 million).

Union stated that its actual 2015 optimization revenues are lower than OEB-approved primarily because of the elimination of the TransCanada FT-RAM program.

- a) Please provide the calculation to support the \$15.565 million that was credited to ratepayers in 2015 rates.
- b) Please explain why actual 2015 base exchange revenues were \$1.379 million lower than OEB-approved.

Response:

- a) 2015 rates include a credit of \$13.426 million based on the Board's EB-2011-0210 Decision for upstream transportation optimization. In 2015, the actual consumption volumes exceeded the forecast consumption volumes in rates. Based on the actual consumption for 2015, customers received a credit of \$15.565 million for optimization revenue. This is consistent with the methodology as approved by the Board in the EB-2011-0210 Decision and Rate Order.

Year 2015

Deferral Disposition - Gas Optimization

<u>Rate Class</u>	<u>Volumes</u> <u>10³m³</u>	<u>Rate: cents /</u> <u>m³</u>	<u>Gas Optimization</u> <u>(\$000's)</u>
Rate 01	962,033	0.4229000	4,068
Rate 10	348,037	0.3906000	1,359
Rate 20	5,658	4.1642000	236
Rate 20T	61,528	0.2597000	160
Rate 25	935	0.2720000	254
Rate M1	2,701,384	0.2824000	7,629
Rate M2	597,640	0.2824000	1,688
Rate M4	31,119	0.2824000	88
Rate M5	8,026	0.2824000	23
Rate M7	21,253	0.2824000	60
Rate M10	300	0.2824000	1
Total			15,565

- b) The actual 2015 base exchange revenues were \$1.379 million lower than Board-approved base exchange revenues due to customers committing to higher levels of Firm Transportation ("FT") on TransCanada which resulted in lower market opportunities in the secondary market.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 1, p. 11

Preamble: Union noted that the storage requirement for the contract market was calculated using either the OEB-approved “aggregate excess methodology” or the “15 X obligated Daily Contract Quantity (DCQ) storage methodology”.

- a) Please advise whether the use of a “15 X obligated DCQ storage methodology” to determine the storage requirement for the contract market is a change from the 2014 Deferral Account Disposition proceeding (EB-2015-0010). If so, please provide rationale.

Response:

- a) No, the use of 15 X obligated DCQ storage methodology to calculate the storage requirement for the contract market is not a change from the 2014 Deferral Account Disposition proceeding (EB-2015-0010). Specifically, the 15 X obligated DCQ storage methodology is used as part of the determination of the overall contract market storage requirement when an eligible customer in the T1, T2 or T3 rate classes has elected this methodology.

Union’s 2014 Deferral Account Disposition proceeding (EB-2015-0010) evidence inadvertently excluded a reference to the 15 X obligated DCQ storage methodology.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 1, pp. 24-27

Preamble: Union noted that to determine the change in storage requirements for each general service rate class due to Normalized Average Consumption (NAC) variances, Union calculated the NAC volume variance between its 2015 / 2016 Gas Supply Plan and the 2013 OEB-approved volumes multiplied by the 2013 OEB-approved number of customers. Union then calculated the change in storage requirement for each of the general service rate classes due to variances in the NAC using the OEB-approved aggregate excess methodology.

- a) For each general service rate class, please provide detailed calculations supporting the change in storage volume requirements from 2013 OEB-approved (as set out in Table 8).
- b) For each general service rate class, please also provide the calculation supporting the storage cost balances (as set out in Table 7 at Line 3).

Response:

- a) Please see Attachment 1.
- b) Please see Attachment 2 for a breakdown of the total storage costs by cost type. The total costs, as applicable, were allocated to rate classes based on the storage space changes for each rate class.

Please see Attachment 3 for calculation details of Total Costs.

Volume Change due to Change in Usage (in 10³m³)

<u>Line</u> <u>No.</u>		Rate M1	Rate M2	Rate 01	Rate 10	Total
1	Apr-15	-8,879	27,428	6,549	2,337	27,434
2	May-15	-4,663	31,189	5,545	4,516	36,587
3	Jun-15	-7,046	16,544	3,047	2,813	15,358
4	Jul-15	-3,268	8,370	532	2,015	7,649
5	Aug-15	-5,779	9,210	-990	3,337	5,778
6	Sep-15	-9,007	24,649	2,074	6,680	24,396
7	Oct-15	-19,108	35,975	3,644	4,926	25,437
8	Nov-15	-4,645	31,197	4,150	4,436	35,138
9	Dec-15	2,444	7,164	3,143	2,997	15,748
10	Jan-16	750	-10,681	5,444	2,946	-1,542
11	Feb-16	16,744	5,165	5,566	2,380	29,855
12	Mar-16	-6,673	9,413	5,150	-395	7,494
13	Total	-49,130	195,621	43,853	38,987	229,332

Aggregate Excess Impact - Volume Change due to change in Usage

		Rate M1	Rate M2	Rate 01	Rate 10	Total
14	Annual	-49,130	195,621	43,853	38,987	229,332
15	Line 14/366*152	-20,404	81,242	18,212	16,191	95,242
16	Winter (lines 8 to 12)	8,620	42,257	23,453	12,364	86,694
17	Storage Impact (in 10 ³ m ³) (line 16 - line 15)	29,024	-38,984	5,240	-3,828	-8,548
18	Convert to GJ (line 17*38.55)	1,118,861	-1,502,847	198,976	-145,335	-330,345
19	Storage (GJ)	1,118,861	-1,502,847	198,976	-145,335	-330,345
20	Storage (PJ) (line 19/1,000,000)	1.12	-1.50	0.20	-0.15	-0.33

Calculation of 2015 NAC Storage Costs

Line No.	Particulars (\$000's)	Union South		Union North		Total
		M1	M2	01	10	
1	Storage Space (PJ)	1.12	(1.50)	0.20	(0.15)	(0.33)
<u>Costs of storage</u>						
2	O&M (Revenue Req't cross charge)	376	(505)	67	(49)	(111)
3	UFG	29	(39)	5	(4)	(9)
4	Compressor Fuel	110	(148)	20	(14)	(32)
5	Third Party Costs	-	-	-	-	-
6	Dawn to Parkway Costs	-	-	25	(18)	7
7	Inventory Carrying Costs	185	(248)	33	(24)	(55)
8	Deliverability	97	(131)	17	(13)	(29)
9	Total	797	(1,070)	166	(122)	(229)

O&M Cross Charge

PJ of Additional Gas	(0.33)
Board-approved Cross Charge @ 11.3 PJ	\$ 3,810,000
O&M Cross Charge @ -0.33 PJ	\$ (111,382)

Unaccounted For Gas

Board-approved Volume for 11.3 PJ	56,773 GJ
Volume Allocation for -0.33 PJ (56,773 x -0.33/11.3)	(1,660) GJ
October 2015 Weighted Average Cost of Gas ("WACOG")	\$ 5.140 / GJ
UFG Costs	\$ (8,531)

Compressor Fuel

Board-approved Volume for 11.3 PJ	215,774 GJ
Volume allocation for -0.33 PJ (215,774 x -0.33/11.3)	(6,308) GJ
October 2015 WACOG	\$ 5.140 / GJ
Compressor Fuel Costs	\$ (32,423)

Dawn to Parkway Costs

North Additional Storage for Usage (GJ)	53,641 GJ
Dawn to Parkway M12 Rate	\$ 0.08560 /GJ
Dawn to Parkway Toll	\$ 4,592
Dawn to Parkway Fuel Ratio	0.750%
October 2015 WACOG	\$ 5.140 /GJ
Dawn to Parkway Fuel	\$ 2,068
Dawn to Parkway Costs (North General Service)	\$ 6,659

Inventory Carrying Costs

GJ of Additional Gas	(330,345) GJ
Average Inventory Level (per Inventory Profile)	62%
October 2015 WACOG	\$ 5.140 /GJ
Inventory Carrying Charge	5.18%
Inventory Carrying Costs	\$ (54,532)

Deliverability

GJ of Additional Gas	(330,345) GJ
Additional Deliverability (1.8% vs. 1.2%)	0.6%
Board-approved Monthly T1 Rate for Deliverability	\$ 1.208 /GJ
	(2,394)
	12 months
Deliverability Costs	\$ (28,732)

Total Costs	\$ (228,941)
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UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 1, pp. 46-48

Preamble: Union noted that the Unaccounted for Gas (UFG) Price Variance Account will capture the variance between the average monthly price of Union's purchases and the applicable OEB-approved reference price, applied to Union's actual UFG volumes.

Union stated that relative to the OEB-approved reference prices included in rates, the weighted average price variance is \$45.08 / 10³m³.

a) Please provide the detailed calculation for the weighted average price variance of \$45.08 / 10³m³.

Response:

a) Please see Attachment 1.

Table 15 - Calculation of 2015 UFG Price Deferral

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Actual UFG (GJ)	174,897	174,897	174,897	174,897	174,897	174,897	174,897	174,897	174,897	174,897	174,897	174,897	2,098,762
less: UFG collected through T1, T2, T3 and exfranchsie CSF (GJ)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(133,470)	(1,601,635)
UFG - Utility Ratepayer (GJ)	41,427	41,427	41,427	41,427	41,427	41,427	41,427	41,427	41,427	41,427	41,427	41,427	497,127 (1)
Reference Price (\$CDN/GJ)	\$ 5.716	\$ 5.716	\$ 5.716	\$ 5.036	\$ 5.036	\$ 5.036	\$ 5.147	\$ 5.147	\$ 5.147	\$ 5.140	\$ 5.140	\$ 5.140	\$ 5.291
SPGVA Purchase (GJ)	12,758,288	18,056,764	20,957,000	11,262,728	10,064,057	9,787,522	10,129,974	8,133,895	9,887,426	9,569,871	11,201,186	11,170,209	142,978,920 (2)
SPGVA Portfolio Cost (\$CDN/GJ)	\$ 63,143,980	\$ 76,762,356	\$ 89,794,236	\$ 48,437,120	\$ 36,146,752	\$ 38,513,468	\$ 40,997,473	\$ 35,231,385	\$ 40,821,555	\$ 38,581,400	\$ 39,834,019	\$ 41,178,993	\$ 589,442,737 (2)
Average SPGVA Purchase Cost (CDN\$/GJ)	\$ 4.949	\$ 4.251	\$ 4.285	\$ 4.301	\$ 3.592	\$ 3.935	\$ 4.047	\$ 4.331	\$ 4.129	\$ 4.032	\$ 3.556	\$ 3.687	\$ 4.123 (2)
Price Variance (\$CDN/GJ)	\$ 0.767	\$ 1.465	\$ 1.431	\$ 0.735	\$ 1.444	\$ 1.101	\$ 1.100	\$ 0.816	\$ 1.018	\$ 1.108	\$ 1.584	\$ 1.453	\$ 1.169 (3)
Price Variance (\$CDN)	\$ 31,764.25	\$ 60,683.88	\$ 59,295.23	\$ 30,463.26	\$ 59,834.66	\$ 45,613.20	\$ 45,563.94	\$ 33,786.86	\$ 42,188.11	\$ 45,920.07	\$ 65,611.10	\$ 60,214.41	\$ 580,939
UFG Volumes (10 ³ m ³)													12,887 (4)
Average Price Variance (CDN\$/10 ³ m ³)													\$ 45.079 (5)

Notes:

(1) Required Utility ratepayer purchase of gas associated with UFG that is not collected through customer supplied fuel.

(2) Total purchase of gas for the Union South portfolio (as detailed in the 2016 QRAM submissions); includes the purchase for Utility UFG purposes as noted above in (1).

(3) Net price variance for 2015 representing difference between actual purchase cost versus Board-approved reference prices.

(4) UFG total GJ from note 1 multiplied by approved heat values (Jan-Mar @ 38.29; Apr-Dec @ 38.55).

(5) Average price variance in GJ converted to volumetric rate by dividing total price variance of \$580,939 over the UFG volumes determined in note 4.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 2 Corrected, p. 4

Preamble: Union noted that the increase in expenses of \$16 million relative to 2014 was mainly driven by higher depreciation expense due to new projects placed into service.

- a) Please provide a more detailed explanation for the increase in expenses relative to 2014.
Please provide a table highlighting all of the changes in expenses.

Response:

- a) Please see the table below.

<u>Line No.</u>	<u>Particulars (\$000's)</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>Variance</u>
1	Depreciation	200,368	212,219	11,851
2	Operating And Maintenance Expenses	379,760	382,984	3,224
3	Property And Other Taxes	64,324	65,848	1,524
4	<u>Other</u>	<u>1,741</u>	<u>1,262</u>	<u>(479)</u>
5	<u>Total</u>	<u>646,193</u>	<u>662,313</u>	<u>16,120</u>

Depreciation increased \$11.9 million, primarily due to Union's 2015 Board-approved capital pass-through projects and an increased level of distribution mains and services being placed into service.

Operating and maintenance expenses increased \$3.2 million, mainly as a result of higher contract services due to higher integrity and line locate costs, higher inbound services due to higher procurement services, and higher benefits due to increased pension costs. These were partially offset by higher direct and indirect capitalization due to increases in capital expenditures.

Property taxes increased \$1.5 million, mainly as a result of pipeline growth and replacements.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 3, p. 2

Preamble: Union proposed to allocate the portion of the balance in the UDC Variance Account related to Union South to sales service customers based on forecast sales service volumes.

Please provide rationale for this proposed allocation methodology.

Response:

Union proposed that the balance in the UDC Variance Account related to Union South be allocated to Union South sales service customers because Union incurs UDC in the provision of transportation service for sales service customers only. In Union South, the costs associated with upstream transportation assets are recovered from sales service customers only in the gas supply commodity charges.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Exhibit A, Tab 3, pp. 3-4

- a) Please advise whether the allocation methodology discussed at Lines 3-12 on Page 4 of Exhibit A / Tab 3 is related to the Upstream Transportation Optimization Account and not the Deferral Clearing Variance Account.

Response:

- a) Confirmed. The allocation methodology discussed at Exhibit A, Tab 3, p.4, lines 3-12 is related to the Upstream Transportation Optimization Account and not the Deferral Clearing Variance Account.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 5 of 53

- a) What was the basis (the calculation) underpinning 20.2 PJ of incremental spot gas?
- b) When was the gas purchased?
- c) Please explain the phrase "...Union Filled Planned winter UDC and purchased 20.2 P of incremental spot gas..."

Response:

- a) As indicated in Exhibit A, Tab 1, p.5, Union purchased 20.2 PJ of incremental spot gas to meet actual and forecast demands for Winter 2014/2015. The requirement for spot gas purchases in Winter 2014/2015 was discussed in the April 2015 QRAM (EB-2015-0035) and the July 2015 QRAM (EB-2015-0187).
- b) The table below was provided in the April 2015 QRAM (EB-2015-0035) at Tab 1, p.7 and the July 2015 QRAM (EB-2015-0187) at Tab 1, p.5 and provides the dates when spot gas was purchased.

Line No.	Date Purchased	Total Landed Volume (PJ)	Estimated Cdn \$/GJ	Total Cost (\$ million)	Delivery Date
1	December 12, 2014	1.0	\$5.12	\$5.1	January
2	December 16, 2014	1.0	\$5.12	\$5.1	January
3	January 16, 2015	2.0	\$3.97	\$7.9	February
4	January 23, 2015	1.0	\$3.84	\$3.8	February
5	January 26, 2015	1.0	\$3.75	\$3.8	February
6	January 29, 2015	1.0	\$3.50	\$3.5	February
7	February 6, 2015	1.0	\$3.41	\$3.4	February 7-28
8	February 6, 2015	1.0	\$3.44	\$3.4	March
9	February 11, 2015	1.2	\$4.19	\$4.9	February 12-28
10	February 11, 2015	4.8	\$4.03	\$19.5	March
11	February 13, 2015	1.5	\$3.89	\$5.8	March
12	February 17, 2015	2.7	\$4.10	\$11.1	March
13	March 3, 2015	1.0	\$4.95	\$5.0	March 14-31
14	Total	20.2	\$4.08	\$82.3	

- c) UDC is part of planned operations for Union North due to the requirement to hold sufficient TransCanada Pipeline Limited (“TransCanada”) firm transportation (“FT”) capacity and other firm assets (both storage and transportation related) to meet Design Day requirements. Assets required to meet Design Day demands are greater than what is required to meet average daily demand, and therefore results in planned unutilized pipeline capacity and UDC. As indicated in Exhibit A, Tab 1, p.5, the Gas Supply Plan assumed a total of 12.1 PJ of unutilized pipeline capacity and UDC for the 2014/2015 gas year. Of the total 12.1 PJ, 5.6 PJ was planned unutilized pipeline capacity and UDC in Winter 2014/15 and the remaining 6.5 PJ was planned unutilized pipeline capacity and UDC in summer 2015. In Winter 2014/2015, Union purchased supply to fill the planned UDC of 5.6 PJ and also purchased 20.2 PJ of spot gas to meet actual and forecast demands for the winter period. This was discussed in the April 2015 QRAM (EB-2015-0035) at Tab 1, p.12, line 20 and 21. *“In addition to the spot gas purchased, Union filled 5.6 PJ of planned UDC for Union North to meet actual demands above forecast for the period November 1 to March 31.”*

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Exhibit A, Tab 1, Page 9 of 53

a) Please provide a copy of the Union/EGD LBA.

Response:

a) Please see Attachment 1.



VIA COURIER

November 27, 1997

The Consumers' Gas Company Limited,
500 Consumers Road,
Willowdale, Ontario.
M2J 1P8

Attention: Mr. George Dann

Dear George:

Re: Limited Balancing Agreement ("LBA") between Union Gas Limited ("Union") and The Consumers' Gas Company Limited ("Consumers") date as of November 1, 1997.

This letter confirms our agreement that the LBA will be duly executed by Consumers' forthwith and that the LBA will be implemented immediately.

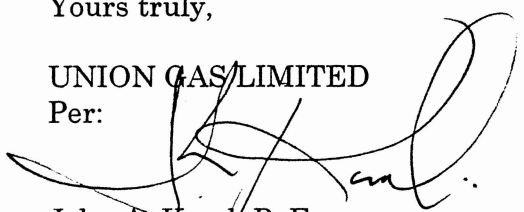
It is also mutually acknowledged that the terms and conditions may not be 100% achievable today, therefore, both Union and Consumers' commit to comply fully with the LBA as soon as reasonably possible.

Additionally, both Union and Consumers' agree that the new charges for daily and cumulative imbalances in the LBA that form part of the Union rate hearing will not be effective until April 1, 1998.

Yours truly,

UNION GAS LIMITED

Per:



John A. Korol, P. Eng.
Manager, Gas Control

LIMITED BALANCING AGREEMENT

THIS AGREEMENT made as of the 1st day of November, 1997.

B E T W E E N :

UNION GAS LIMITED, a company incorporated under the laws of the Province of Ontario having its head office in the City of Chatham

hereinafter referred to as "UNION"

- and -

THE CONSUMERS' GAS COMPANY LIMITED, a company incorporated under the laws of the Province of Ontario, having its head office in the City of Toronto

hereinafter referred to as "CONSUMERS"

WITNESSETH THAT:

WHEREAS Union owns and operates a natural gas transmission and storage system in Southwestern Ontario ("Union's System");

AND WHEREAS Consumers' owns and operates a natural gas local distribution system in the Province of Ontario ("Consumers' System");

AND WHEREAS Consumers' and Union are parties to Firm Transportation Service Contracts with each other ("FTCs") which include delivery points at the interconnections between Union's System and Consumers' System commonly known as Lisgar and Parkway-Consumers' (the "Interconnection Points");

AND WHEREAS the evolution of the gas industry and, in particular, the TransCanada Pipelines Limited ("TCPL") introduction of balancing fees require greater correspondence between nominated volumes and actual volumes at the Interconnection Points;

AND WHEREAS Union may enter into, transportation service contracts with shippers ("Union's Shippers") whereby Union will receive from Union's Shippers, at points on Union's System which may include the Interconnection Points, quantities of gas which are nominated by Union's Shippers and confirmed for redelivery by Union to Union's Shippers at other points on Union's System, which may include the Interconnection Points;

AND WHEREAS Consumers' may enter into, agreements with shippers ("Consumers' Shippers") who are also Union's Shippers whereby Consumers' will receive from Consumers' Shippers, at points on Consumers' System which may include the Interconnection Points, quantities of gas which are nominated by Consumers' Shippers and confirmed for redelivery by Consumers' to Consumers' Shippers at other points on Consumers' System, which may include the Interconnection Points;

AND WHEREAS Union, as operator of the Union System and Consumers' as operator of the Consumers' System, propose to balance and rectify those variations between themselves so that the Confirmed Nominations (as defined herein) of gas are balanced at the Interconnection Points daily and over time.

NOW THEREFORE Union and Consumers' (Collectively the "Parties" and each a "Party"), in consideration of the covenants and agreements contained herein, covenant and agree as follows:

1. On or before 1630 hours Eastern Time ("ET") on each day immediately prior to the gas day for which transportation services are to be rendered on the Union System and on the Consumers' System, Union shall provide to Consumers', by telecopy or such other means as may subsequently be agreed to by the Parties, a statement summarizing nominations for gas quantities at the Interconnection Points for the subject gas day (the "Confirmation Report").

The Confirmation Report shall state the following:

- a) Nominations on Union's System which are to be supplied to or by, as the case may be, those of Consumers' and Consumers' Shippers that are receiving or delivering gas at the Interconnection Points on such gas day (the "Nominating Shippers"); and
 - b) The Imbalance Make-up nomination, if established pursuant to Paragraph 16.
2. Upon receipt by Consumers' of the Confirmation Report, Consumers' will identify any discrepancies between the nominations on Consumers' System by the Nominating Shippers and the corresponding amounts nominated for receipt from or delivery to Union's System and Union and Consumers' shall use reasonable and good faith efforts to resolve any such nomination discrepancies. Consumers' shall thereafter promptly advise Union as to whether Consumers' accepts or rejects, as the case may be, any or all of the nominations shown on the Confirmation Report.

Any advice that Consumers' is accepting or rejecting the Confirmation Report will include the information referenced in paragraphs 2, 3, 4 and 5 herein, and shall be sent to Union by telecopy or such other means as may be agreed to by Union and Consumers' (the "Consumers' Reply Confirmation Report") by the later of 1730 hours ET or one hour after receipt by Consumers' of the Confirmation Report. If the Consumers' Reply Confirmation Report indicates a discrepancy between the nomination on Consumers' System by a Nominating Shipper and the corresponding nomination on the Confirmation Report, Consumers' shall be deemed to have rejected the Confirmation Report insofar as it relates to such Nominating Shipper, and Sections 4 and 5 will apply. If Consumers' fails to submit a Consumers' Reply Confirmation Report within the above-described timeframe, or no discrepancy exists between the subject nominations, Consumers' shall be deemed to have accepted the Confirmation Report insofar as it relates to the relevant Nominating Shipper.

3. If Consumers' accepts all or, pursuant to Section 4, part of the Confirmation Report, the Consumers' Reply Confirmation Report shall confirm the nominations on Consumers' System for each of (i) the Imbalance Make-up, and (ii) the Nominating Shippers (individually, a "Confirmed Nomination" and collectively, the "Confirmed Nominations").
4. If Consumers' rejects a nomination shown on the Confirmation Report then the Confirmed Nomination on the Union System and the Consumers' System at the Interconnection Points for the subject Nominating Shipper for the subject gas day shall be that volume which is equal to the lesser of:
 - a) the nomination by such shipper on the Consumers' System; and
 - b) the nomination by such shipper on the Union System as set forth in the Confirmation Report.

The Imbalance Make-up nomination on any day when Consumers' rejects a Confirmation Report will remain in effect as agreed to by the Parties pursuant to Paragraph 16.

5. The Consumers' Reply Confirmation Report will, inter alia, indicate those Nominating Shippers on the Consumers' System with a lower nomination on the Consumers' System than stated in the Confirmation Report. If a lower nomination is reported on the Consumers' Reply Confirmation Report, Union will submit to Consumers' a revised Confirmation Report incorporating this lower nomination value, which revised Confirmation Report must be submitted to Consumers' by the later of 18:00 ET or one half hour after receipt by Union of the Consumers' Reply Confirmation Report.
6. After the Confirmation Report has been accepted or revised as set out above, the nominations shown on the Confirmation Report can only be changed if Consumers' and Union agree to the change. Once such an agreement is reached, the agreed change will be conditional upon delivery of a revised Confirmation Report by Union to Consumers' and these agreed nominations will replace (as applicable) the previous Confirmed Nominations.
7. On or before the third banking day after the end of each calendar month, Union will provide to Consumers', by telecopy or such other means as may be agreed to by Union and Consumers', a statement summarizing the daily Confirmation Reports for the immediately preceding calendar month (the "Monthly Allocation Statement"). For the purposes of this Agreement a "banking day" shall mean a day on which the main branch of the Toronto-Dominion Bank in Toronto, Ontario and the downtown branch of the Canadian Imperial Bank of Commerce in Chatham, Ontario, are open for the conduct of regular business.
8. Each gas day, without reducing or eliminating the effect of any provision of this Agreement, Union and Consumers' shall use reasonable and good faith efforts to ensure that the volume of gas that crosses at the Interconnection Points on that gas

day is as close as possible to the Confirmed Nominations as set out in paragraphs 3, 4, 5 and 6 at the Interconnection Points for the gas day.

9. As soon as practical each day, Union shall provide Consumers' with an estimate of the volume of gas that flowed at the Interconnection Points on the previous gas day which is as accurate as is reasonably possible.
10. Unless Union and Consumers' otherwise mutually agree in writing:
 - a) Utilizing telemetry estimates, Union shall adjust the operations of the Union System and Consumers' shall adjust the operations of the Consumers' System as necessary in order to minimize the Daily Imbalance (as defined in Paragraph 14(a)) at the Interconnection Points on each gas day to within the greater of plus or minus 2.0% of Confirmed Nominations or $28.0 \text{ } 10^3 \text{ m}^3$ (the "Maximum Daily Imbalance"); and
 - b) Union shall adjust the operations of the Union System and Consumers' shall adjust the operations of the Consumers' System as necessary such that the Accumulated Imbalance (as defined in Paragraph 14(b)) trends towards zero, but in any event, does not exceed the greater of plus or minus 4.0% of the average of Confirmed Nominations for the previous thirty days or $56.0 \text{ } 10^3 \text{ m}^3$ (the "Maximum Accumulated Imbalance").

Union may limit the maximum variances set out above if operational circumstances require Union to protect system integrity or to ensure that all Union firm obligations are met. However, no charges as set out in Section 15 of this Agreement will be applied to Consumers' for Daily and Accumulated Imbalances which are within the maximums set out in (a) and (b) above. If the Daily Imbalance for any gas day exceeds, or is projected to exceed, the Maximum Daily Imbalance, or if the Accumulated Imbalance exceeds, or is projected to exceed, the Maximum Accumulated Imbalance, or if the Daily Imbalance would result in exceeding any variance otherwise agreed to by the Parties, Union and Consumers' immediately that same day shall do any one or more of the following in order to keep the total volumes delivered for that day within the applicable variances set forth above: (x) cause their respective shippers to submit revised nominations to be confirmed in accordance with the procedure in Paragraphs 1 through 6 above (the "Revised Nominations"), (y) adjust their operations, and/or (z) agree upon a revised Imbalance Make-up nomination pursuant to Paragraph 16.

11.
 - a) Nothing herein contained shall obligate Union to provide delivery pressure at the Interconnection Points in excess of the minimum delivery pressure which Union is obligated to provide to Union's Shippers (the "Minimum Delivery Pressure"), nor to reduce the delivery pressure below the Minimum Delivery Pressure.
 - b) In addition, at all times that Union is maintaining the Minimum Delivery Pressure, or such other pressure that Consumers' may request of Union and

that Union agrees to provide, Union will be deemed to be operating Union's System in conformity with the requirements of this Agreement.

12.

- a) If a capacity constraint occurs on Union's System which results in a curtailment of volumes through the Interconnection Points, then Union shall determine, in its sole discretion but not in breach of a contractual obligation, the reallocation amongst Union's Shippers of the volumes through the Interconnection Point and that reallocation shall be immediately communicated to Consumers'.
- b) If a capacity constraint occurs on Consumers' System which results in a curtailment of volumes through the Interconnection Points, then Consumers' shall determine, in accordance with its own transportation agreements, the reallocation amongst Consumers' Shippers of the volumes through the Interconnection Point and that reallocation shall be immediately communicated to Union.
- c) All reallocations pursuant to this Paragraph 12 shall be confirmed in accordance with the provisions of Paragraphs 1 through 6 above by the Party making the reallocation to the other Party, and shall constitute Revised Nominations.

13.

- a) The actual volume of gas that flowed at the Interconnection Points for each day (the "Actual Volume") will be determined in cubic meters and communicated by Union to Consumers' as soon as possible, but not later than three banking days after the end of the month. The Actual Volume shall be determined by Union in accordance with Union's General Terms and Conditions.
- b) For Union's allocation purposes, the volume utilized in calculating the amounts payable by each of Union's Shippers in respect of gas delivered at the Interconnection Points shall be the Confirmed Nomination or Revised Nomination, as the case may be, for each Union Shipper.
- c) For Consumers' allocation purposes, the volume utilized in calculating the amounts payable by each of Consumers' Shippers in respect of gas received at the Interconnection Points shall be the Confirmed Nomination or Revised Nomination, as the case may be, for each Consumers' Shipper.

14. a)

- i) Each day, the Actual Volume minus the Confirmed Nominations or Revised Nominations, as the case may be, whether positive or negative shall be the Gross Imbalance.
- ii) On any day the excess, if any, of the Actual Volume over the greater of Confirmed/Revised Nominations or 102% of the FTC's Contract Demand, shall be Unauthorized Overrun, and the terms and

conditions (including fees and penalties) then existing in the FTC shall apply.

- iii) Each day, the Gross Imbalance minus any Unauthorized Overrun, if any, for such day shall be the Daily Imbalance.
 - b) Each day, all Daily Imbalances will be added together on an ongoing basis, with such sum defined as the accumulated imbalance (the "Accumulated Imbalance").
 - c) Daily Imbalances and Accumulated Imbalances shall be subject to the restrictions set out in Section 10 of this Agreement and shall be handled and eliminated in accordance with the terms of this Agreement.
- 15.
- a) With respect to the volumes within the contractually allowed parameters of the FTCs, the parties acknowledge that during the term of this Agreement, Union may charge cumulative or daily fees or penalties equivalent to the fees or penalties which TCPL may charge for similar imbalances between nominated and actual volumes to and from the TCPL System under Article XXII (as amended or succeeded from time to time) of TransCanada Pipeline's Transportation Tariff, or such other fee or penalty approved by the Ontario Energy Board, for imbalances between Actual Volumes and Confirmed Nominations, either on the basis of overrun calculations or the difference between daily authorized and allocated volumes in accordance with the following paragraphs 15(b) and 15(c) (collectively referred to as "Balancing Service Fees").
 - b) On each day, Union shall deem any part of a Daily Imbalance that exceeds the Maximum Daily Imbalance to have been delivered under Consumers' FTC for the purpose of determining Balancing Service Fees. For the purpose of calculating such Balancing Service Fees, Consumers' daily contract quantity under Consumers' FTC shall be deemed to be the net sum of all Confirmed Nominations or Revised Nominations, as the case may be, for all transportation service provided at the Interconnection Points on that day. No Balancing Service Fees shall be applied on that portion of a variance or imbalance which is less than the Maximum Daily Imbalance, as defined herein.
 - c) On each day, Union shall deem any part of an Accumulated Imbalance that exceeds the Maximum Accumulated Imbalance to have been delivered under Consumers' FTC for the purpose of determining Balancing Service Fees. For the purpose of calculating such Balancing Service Fees, Consumers' daily contract quantity under Consumers' FTC shall be deemed to be the net sum of all Confirmed Nominations or Revised Nominations, as the case may be, for all transportation service provided at the Interconnection Points on that day. No Balancing Service Fees shall be applied on that portion of a variance or imbalance which is less than the Maximum Accumulated Imbalance, as defined herein.

16. The Parties agree to eliminate each Accumulated Imbalance in as short a period of time as possible through agreeing upon and thereafter nominating (pursuant to Paragraphs 1 to 5 hereof), delivering and/or receiving, as the case may be, a daily imbalance make-up volume (the "Imbalance Make-up"). Failure to agree entitles Union to transfer each Accumulated Imbalance to Consumers' FTC and to re-nominate Consumers' FTC to eliminate each Accumulated Imbalance over time.
17. This Agreement shall be effective commencing the date noted above, and shall expire at the end of all such Consumers' FTC's with an Interconnection Point as a point of delivery. Any Daily Imbalance or Accumulated Imbalance remaining upon termination or expiry shall be eliminated within thirty (30) days of the termination or expiry of this Agreement, or within such longer period of time as may be mutually agreed to by the Parties. All agreements to eliminate Daily Imbalances and Accumulated Imbalances which are in effect at the termination or expiry of this Agreement shall remain in effect and be binding upon the Parties hereto until the completion of those agreements. Failure to agree entitles Union to transfer the Daily Imbalances and Accumulated Imbalances to Consumers' FTC and to re-nominate Consumers' FTC to eliminate the Daily Imbalances and Accumulated Imbalances over time. Once all Daily Imbalances and Accumulated Imbalances have been eliminated after the issuance of a termination or expiry notice, this Agreement shall terminate without the requirement of further notice to or from one Party to the other Party.
18. It is the intention of the Parties to perform their obligations under this Agreement in good faith in an on-going effort to balance the actual flow of gas with the nominated flow of gas through the Interconnection Points on a daily and cumulative basis. In furtherance of this intention, Consumers' covenants and agrees that it will not use this Agreement as a means to loan gas from or park gas on Union's System for the benefit of Consumers' or Consumers' Shippers.
19. Consumers will nominate in accordance with the M-12 Rate Schedule filed with the Ontario Energy Board.
20. This Agreement shall be subject to the laws of the Province of Ontario and is subject to the rules, regulations and orders of any Canadian or Provincial regulatory or legislative authority as may from time to time exercise lawful jurisdiction.
21. This Agreement and all agreements entered into pursuant hereto shall enure to the benefit of, and be binding upon the Parties hereto and their respective successors and assigns.
22. Time is of the essence of this Agreement.
23. No waiver by either Union or Consumers' of any one or more defaults by the other in the performance of any provision of this Agreement shall operate or be construed as a waiver of any continuing or future default or defaults whether of a like or different character, or a waiver of the Parties' obligation to eliminate a Daily Imbalance and an Accumulated Imbalance.

24. This Agreement constitutes the entire agreement of the parties hereto with respect to Daily Imbalances and Accumulated Imbalances as they may arise from time to time following the date first indicated at the commencement of this Agreement, and shall not be changed, modified or varied except by instrument in writing duly executed by the Parties hereto.

IN WITNESS WHEREOF the parties hereto have executed this Agreement.

UNION GAS LIMITED

Per:

Vice President

Assistant Secretary

THE CONSUMERS' GAS COMPANY LIMITED

Per:

GEORGE DANN

DIRECTOR

GAS SUPPLY SERVICES

ALLEN J. MACLURE

DIRECTOR, TRANSPORTATION

CONTRACTING

APPROVED FOR EXECUTION	LEGAL
REGULATORY	FINANCE
OPERATIONS	SALES & MKTG.
CONTENTS APPROVED	FORM APPROVED

October 23, 2001

The Consumers' Gas Company Limited
500 Consumers Road
Willowdale, Ontario
M2W 1P8

Attention: Mr. Frank Brennan

Dear Frank:

Re: The Limited Balancing Agreement Between Union Gas Limited ("Union") and The Consumers' Gas Company Limited ("Consumers") dated November 1, 1997 (the "Contract").

Pursuant to the Contract dated November 1, 1997, Union and Consumers, at the Lisgar and Parkway Consumers Interconnect Points, have agreed to amend the Contract effective September 1, 2001, as follows:

1. Delete Section 10 (a) and (b) and replace with the following:

“Unless Union and Consumers otherwise mutually agree in writing:

- (a) Utilizing telemetry estimates, Union shall adjust the operations of the Union System and Consumers shall adjust the operations of the Consumers System as necessary in order to minimize the Daily Imbalance (as defined in Paragraph 14 (a)) at the Interconnection Points on each gas day to within the greater of plus or minus 2.0% of Confirmed Nominations or plus or minus 2.0% of the average of Confirmed Nominations for the previous thirty days or 2111 gigajoules (the “Maximum Daily Imbalance”); and
- (b) Union shall adjust the operations of the Union System and Consumers shall adjust the operations of the Consumers System as necessary such that the Accumulated Imbalance (as defined in Paragraph 14 (b)) trends towards zero, but in any event does not exceed the greater of plus or minus 4.0% of Confirmed Nominations or plus or minus 4% of the average of Confirmed Nominations for the previous thirty days or 4221 gigajoules (the “Maximum Accumulated Imbalance”).”


Kindly acknowledge your agreement with the foregoing by signing and returning both copies to Union.

UNION GAS LIMITED

Larry E. Denver
Manager, Marketing and Sales
Storage and Transportation

UNION GAS LIMITED

Accepted and Agreed to
this 28 day of November, 2001

 **FRANK BRENNAN**
DIRECTOR
ENERGY POLICY & ANALYSIS

e:\contracts\ugl\consgas\limited balancing agreement amendment # 1

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Exhibit A, Tab 1, Page 11 of 53

- a) What determines which of the two methods described is used to calculate the storage requirement for the contract market? Which was used in this case? How do the results compare in the present case?

Response:

- a) The approach to determine in-franchise storage requirements is unchanged from previous years.

The storage allocation for all bundled general service and contract rate customers is determined using the aggregate excess methodology applied to forecast consumption profiles for those customers.

As approved by the Board in its EB-2007-0725 Decision (Natural Gas Storage Allocation Policies), Union South T-service customers determine which methodology is used to calculate their contracted storage space parameter. The two methodologies available to a Union South T-service customer are: aggregate excess or 15 X obligated DCQ.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Figure 1

- a) What has accounted for the increase in the value of storage from 2013 to 2015? What is the current value? What is Union's (ICF's) most recent forecast for storage prices?

Response:

- a) Winter 2013/2014 was colder than normal which caused the price of gas at Dawn during the forward winter months to increase relative to the price of gas during the forward summer months. This increased the seasonal spread and resulted in higher storage values between 2013 and 2015.

Current storage values are impacted by warmer than normal weather in Winter 2015/2016 and a continued increase in production of natural gas in North America (mainly from new shale gas plays such as in Appalachia). As a result, a significant amount of gas remained in storage at March 31, 2016 which reduces the amount of storage capacity currently available for sale and puts downward pressure on the price of gas this summer. The seasonal spread (and value of storage) increases as summer prices lower in relation to the forward winter months. This results in a short-term price of storage at Dawn for the current year (July 1, 2016 to March 31, 2017) in the range of \$0.90 U.S./Mmbtu to \$1.10 U.S./Mmbtu. Storage prices for future years are less impacted by the amount of storage available for sale in the current year (July 2016 to March 2017) and are in the range of \$0.40 U.S./Mmbtu to \$0.60 U.S./Mmbtu.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 26 of 53, Lines 1 to 5

- a) Please explain why the decrease, mainly in the summer months, of the rate M1 NAC volume variance will increase the Rate M1 storage requirement by 1.12 PJ. Please provide the calculation using the aggregate excess methodology.

Response:

- a) As described at Exhibit A, Tab 1, p.25 to determine the change in storage requirements for each general service rate class due to NAC variances, Union calculated the NAC volume variance between its 2015/2016 Gas Supply Plan and the 2013 Board-approved volumes multiplied by the 2013 Board-approved number of customers and applied the aggregate excess storage allocation methodology.

The aggregate excess methodology is based on the difference between each general service rate classes' total winter consumption (November 1 through March 31) and its average daily consumption for the year multiplied by 151 days of winter.

For Rate M1, the NAC volume variance was a decrease of 1.89 PJ. In the summer months, the NAC volume variance was a decrease of 2.22 PJ ($57,750 \text{ } 10^3 \text{m}^3$), while the NAC volume variance in the winter months was an increase of 0.33 PJ ($8,620 \text{ } 10^3 \text{m}^3$). As a result, the difference between total winter consumption for Rate M1 and its average daily consumption increased, which increases the rate class storage requirements. In other words, as it relates to NAC, winter consumption as a proportion of the rate class' total annual consumption increased and accordingly, Rate M1 required additional storage.

Please see Attachment 1 for the calculation of the Rate M1 NAC volume variance of 1.89 PJ by month. Please see the response at Exhibit B.Staff.4a) for the aggregate excess storage calculation resulting in 1.12 PJ increase in Rate M1 storage related to NAC volume variances.

Please also see the response at Exhibit B.Staff.4b) which includes the remaining supporting calculations for the storage costs.

Calculation of the Rate M1 NAC Volume Variance

Line No.	Month	2015/2016 Gas Supply Plan (m³/customer)	2013 Board- approved (m³/customer)	NAC Change (m³/customer)	NAC Change Allocation	Board- approved customers	NAC Volume Variance (10³m³)	NAC Volume Variance (PJ)
		(a)	(b)	(c) = (a) - (b)	(d)	(e)	(f) = (c) x (e) / 1000	(g) = (f) x 38.55 / 1,000,000
1	Apr	229	238	-9		1,042,203	-8,879	
2	May	119	123	-4		1,043,838	-4,663	
3	Jun	62	69	-7		1,043,360	-7,046	
4	Jul	64	67	-3		1,044,840	-3,268	
5	Aug	61	67	-6		1,045,099	-5,779	
6	Sep	72	80	-9		1,046,214	-9,007	
7	Oct	145	163	-18		1,046,704	-19,108	
8	Total Summer	752	807	-55	117%		-57,750	-2.22
9	Nov	272	276	-4		1,049,233	-4,645	
10	Dec	426	424	2		1,052,271	2,444	
11	Jan	499	498	1		1,052,461	750	
12	Feb	448	433	16		1,053,700	16,744	
13	Mar	375	381	-6		1,055,215	-6,673	
14	Total Winter	2,020	2,012	8	-17%		8,620	0.33
15	Grand Total	2,772	2,819	-47	100%	12,575,138	-49,130	-1.89

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 36 of 53

- a) Please explain in more detail the change in project scope described in lines 14-19, and how that change reduced capital costs by \$3.878 million. Show separately the reason for, and the amounts of, the increases in material costs and the reduction in labour costs.

Response:

- a) The project filed with the Board was an interconnecting pipeline from Union's Parkway East Plant crossing Highway 407 to the new Parkway West Plant. What was actually installed was a new TransCanada measurement station at the Parkway West site.

The contract labour for the interconnect piping was estimated at \$9.7 million which included \$4.3 million for the Highway 407 crossing. The actual cost at December 31, 2015 for contract labour to install the new measurement station was \$6.0 million, a decrease of \$3.7 million.

Material for the interconnecting pipeline was estimated at \$3.0 million. The material cost for the measurement station at December 31, 2015 was \$6.3 million. The increase of \$3.3 million was due to higher costs for valves, fittings, and metering at the station site.

Miscellaneous outside services was estimated at \$1.8 million. The actual costs were \$1.3 million a decrease of \$0.5 million.

Contingency estimated at \$2.9 million for unforeseen costs was not utilized.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 39 of 53

- a) Does Union plan to incur additional debt in 2016, 2017, or 2018? Is that additional debt likely to further decrease the average long-term debt rate?
-

Response:

- a) Yes, Union plans to issue additional debt in 2016, 2017, and 2018.

No, any additional debt will not impact the average long-term debt rate used to determine the actual revenue requirement for the Parkway West and Brantford-Kirkwall/Parkway D projects of 3.82%. The average long-term debt rate of 3.82% will be used to calculate the debt portion of the utility required return through to and including 2018.

Debt issued in 2016, 2017 and 2018 will affect the average long-term debt rate for Union's 2016 and 2017 capital pass-through projects. Those capital pass-through projects will be the subject of a future deferral account disposition proceeding.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 42 of 53

- a) Please describe and explain the increase in contract labour costs and other costs that contributed to the \$7.220 million increase.
 - b) What was the lower contingency cost relative to the original contingency cost? How was it used to offset higher than forecast labour costs?
 - c) By how much was the price of the compressor equipment below the costs included in 2015 Board-approved rates?
 - d) Why was the compressor cost lower by \$19.358 million lower than forecast?
 - e) How much of the decrease was the reduction of the contingency for the compressor equipment?
-

Response:

- a) The overall pipeline costs were \$7.220 million higher than estimated. Contract labour increased the costs by \$23.1 million mainly due to a higher lay price and rock encountered during construction which was greater than estimated resulting in an increase in rock excavation, sand padding and the hauling of the rock off site. A decrease in material and miscellaneous labour costs of \$1.3 million was also realized and used to offset the increase in the contract labour costs. Contingency of \$14.6 million included in the estimate was used to offset the higher contract labour costs.
- b) The lower costs referred to in evidence was for material not contingencies. Contingency included in the estimate is for unforeseen costs and therefore was used to offset the increase in labour costs.
- c) Refer to Exhibit A, Tab 1, p.42, Table 14, line 4.
- d) The overall compressor plant costs were lower by \$19.358 million because the design of Parkway Plant D was not yet complete at the time of the estimate. The estimate was based on historical costs with a 20% contingency for unforeseen costs. Labour costs were \$3.3 million lower, material costs were \$1.2 million lower and IDC was \$0.9 million lower. Contingency estimated at \$13.9 million was not utilized.
- e) Please see the response at Exhibit B.BOMA.8.d).

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 1, Page 52 of 53

- a) Were any of the incremental Lobo C compressors in-service in 2015? Please discuss the pipeline and compressor equipment that was installed during October and November of 2015. Was the equipment operating as part of Union's system as of the end of 2015?
-

Response:

- a) There were no incremental Lobo C compressors in-service in 2015.

The pipeline and compressor equipment that was installed during October and November of 2015 consisted of the pipe connections to the Dawn Parkway System pipelines, the aftercooler for Plant A and a portion of the auxiliary building for Plant B.

The equipment was operating as of the end of 2015.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Exhibit A, Tab 2, Page 6 of 9

- a) Please explain more fully the adjustment to utility operating expenses described at line 21 and shown at Exhibit A, Tab 2, Appendix B, Schedule 1, Page 1.

Response:

- a) In its EB-2011-0210 Decision and Order, p.39, the Board ordered:

“the establishment of a new gas supply variance account in which 90% of all optimization margins not otherwise reflected in the revenue requirement are to be captured for the benefit of ratepayers.”

In the findings on rate design, the Board further found at p.85 that the optimization revenues should be considered part of gas supply and removed from S&T revenue.

For external reporting, Union classifies the credit to distribution customers for the optimization revenue as a reduction in the transportation revenue to report only the 10% share. The cost of gas expense is reported as the gross cost.

For regulatory reporting, consistent with the Board’s decision in EB-2011-0210, (Cost of Service proceeding) Union reduces the distribution revenue and the cost of gas by the amount of the optimization credit. This reporting approach does not impact the calculation of utility earnings subject to sharing.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Exhibit A, Tab 3, Page 9 of 10

Please show the magnitude of the proposed one-time adjustment for representative contract customers, small, medium, medium to large, large. Please specify the volumes used for each example.

Response:

Please see Attachment 1, column (f). for the proposed one-time adjustment and column (c) for the volumes used to calculate the one-time adjustment.

UNION GAS LIMITED
Calculation of Sales Service and Direct Purchase Impacts for Typical Small and Large Customers - Union North

EB-2016-0040					2015 Deferral Disposition						
Line			2016 Apr QRAM Rates (1)								Percentage
No.	Particulars	Rate Component	Bill (\$)	Unit Rate (cents/m³)	Volume/ Demand (2)	Billing Units	Disposition Unit Rate (3) (cents/m³)	One-Time Adjustment (\$)	Prospective Recovery/(Refund) (\$)	Total Impact (\$)	Impact (%)
			(a)	(b)	(c)	(d)	(e)	(f) = (c x e)*10	(g) = (c x e)*10	(h) = (f + g)	(i) = (h / a)
	Rate 01 (4)										
1		Delivery	435	19.7552	2	10³m³	0.6189	-	11	11	2.5%
2		Commodity	212	9.6312	-		-	-	-	-	0.0%
3		Transportation	269	12.2171	2	10³m³	0.5049	-	9	9	3.3%
4		Total	915	41.6035				-	19	19	2.1%
5	Sales Service Impact							-	19.47	19.47	2.1%
6	Bundled-T (Direct Purchase) Impact							-	19.47	19.47	2.8%
	Rate 10 (4)										
7		Delivery	5,381	5.7864	67	10³m³	0.4713	-	316	316	5.9%
8		Commodity	8,957	9.6312	-		-	-	-	-	0.0%
9		Transportation	11,362	12.2171	67	10³m³	0.5268	-	353	353	3.1%
10		Total	25,700	27.6347				-	668	668	2.6%
11	Sales Service Impact							-	668.33	668.33	2.6%
12	Bundled-T (Direct Purchase) Impact							-	668.33	668.33	4.0%
	Small Rate 20										
13		Delivery	73,272	2.4424	3,000	10³m³	(0.0005)	(15)	-	(15)	0.0%
14		Commodity	282,225	9.4075	-		-	-	-	-	0.0%
15		Transportation	291,207	9.7069	14	10³m³/d	5.6135	786	-	786	0.3%
16		Total	646,704	21.5568				771	-	771	0.1%
17	Sales Service Impact							(15)	-	771	0.1%
18	Bundled-T (Direct Purchase) Impact							(15)	-	(15)	0.0%
	Large Rate 20										
19		Delivery	281,495	1.8766	15,000	10³m³	(0.0005)	(75)	-	(75)	0.0%
20		Commodity	1,411,125	9.4075	-		-	-	-	-	0.0%
21		Transportation	1,248,031	8.3202	60	10³m³/d	5.6135	3,368	-	3,368	0.3%
22		Total	2,940,651	19.6043				3,293	-	3,293	0.1%
23	Sales Service Impact							(75)	-	3,293	0.1%
24	Bundled-T (Direct Purchase) Impact							(75)	-	(75)	0.0%
	Average Rate 25										
25		Delivery	62,814	2.7611	2,275	10³m³	0.0034	77	-	77	0.1%
26		Commodity	214,021	9.4075	-		-	-	-	-	0.0%
27		Transportation	89,823	3.9483	2,275	10³m³	0.1054	2,398	-	2,398	2.7%
28		Total	366,658	16.1168				2,475	-	2,475	0.7%
29	Sales Service Impact							77	-	2,475	0.7%
30	Bundled-T (Direct Purchase) Impact							77	-	77	0.1%
	Large Rate 100										
31		Delivery	2,106,720	0.8778	240,000	10³m³	-	-	-	-	0.0%
32		Commodity	22,578,000	9.4075	-		-	-	-	-	0.0%
33		Transportation	23,910,914	9.9629	240,000	10³m³	-	-	-	-	0.0%
34		Total	48,595,635	20.2482				-	-	-	0.0%
35	Sales Service Impact							-	-	-	0.0%
36	Bundled-T (Direct Purchase) Impact							-	-	-	0.0%

Notes:

- (1) Reflects Board-approved rates per Appendix A in Union's April 2016 QRAM filing (EB-2016-0040).
- (2) Prospective adjustment volumes based on 6 months from October 1, 2016 to March 31, 2017. One-time adjustment volumes based on annual volumes.
- (3) Per Exhibit A, Tab 3, Schedule 2.
- (4) General service impacts per Exhibit A, Tab 3, Schedule 3.

UNION GAS LIMITED
Calculation of Sales Service and Direct Purchase Impacts for Typical Small and Large Customers - Union South

EB-2016-0040				2015 Deferral Disposition						
Line		2016 Apr QRAM Rates (1)				Disposition	One-Time	Prospective		Percentage
No.	Particulars	Bill	Unit Rate	Volume/	Billing	Unit Rate (3)	Adjustment	Recovery/(Refund)	Total Impact	Impact
		(\$)	(cents/m³)	Demand (2)	Units	(cents/m³)	(\$)	(\$)	(\$)	(%)
		(a)	(b)	(c)	(d)	(e)	(f) = (c x e)*10	(g) = (c x e)*10	(h) = (f + g)	(i) = (h / a)
	Rate M1 (4)									
1	Delivery	346	15.7046	2	10³m³	0.2304	-	4	4	1.1%
2	Commodity	299	13.5856	2	10³m³	0.1942	-	3	3	1.1%
3	Total	644	29.2902				-	7	7	1.1%
4	Sales Service Impact						-	7.13	7.13	1.1%
5	Direct Purchase Impact						-	3.87	3.87	1.1%
	Rate M2 (4)									
6	Delivery	3,817	5.2293	56	10³m³	0.1630	-	91	91	2.4%
7	Gas Supply	9,917	13.5856	56	10³m³	0.1942	-	108	108	1.1%
8	Total	13,735	18.8149				-	199	199	1.5%
9	Sales Service Impact						-	199.22	199.22	1.5%
10	Direct Purchase Impact						-	90.91	90.91	2.4%
	Small Rate M4									
11	Delivery	37,374	4.2713	875	10³m³	(0.0030)	(26)	-	(26)	-0.1%
12	Gas Supply	118,874	13.5856	629	10³m³	0.1942	-	1,222	1,222	1.0%
13	Total	156,248	17.8569				(26)	1,222	1,195	0.8%
14	Sales Service Impact						(26)	1,222	1,195	0.8%
15	Direct Purchase Impact						(26)	-	(26)	-0.1%
	Large Rate M4									
16	Delivery	277,378	2.3115	12,000	10³m³	(0.0030)	(360)	-	(360)	-0.1%
17	Gas Supply	1,630,272	13.5856	8,626	10³m³	0.1942	-	16,752	16,752	1.0%
18	Total	1,907,650	15.8971				(360)	16,752	16,392	0.9%
19	Sales Service Impact						(360)	16,752	16,392	0.9%
20	Direct Purchase Impact						(360)	-	(360)	-0.1%
	Small Rate M5									
21	Delivery	30,596	3.7086	825	10³m³	(0.0255)	(210)	-	(210)	-0.7%
22	Gas Supply	112,081	13.5856	593	10³m³	0.1942	-	1,152	1,152	1.0%
23	Total	142,677	17.2942				(210)	1,152	941	0.7%
24	Sales Service Impact						(210)	1,152	941	0.7%
25	Direct Purchase Impact						(210)	-	(210)	-0.7%
	Large Rate M5									
26	Delivery	169,794	2.6122	6,500	10³m³	(0.0255)	(1,658)	-	(1,658)	-1.0%
27	Gas Supply	883,064	13.5856	4,673	10³m³	0.1942	-	9,074	9,074	1.0%
28	Total	1,052,858	16.1978				(1,658)	9,074	7,417	0.7%
29	Sales Service Impact						(1,658)	9,074	7,417	0.7%
30	Direct Purchase Impact						(1,658)	-	(1,658)	-1.0%

Notes:

- (1) Reflects Board-approved rates per Appendix A in Union's April 2016 QRAM filing (EB-2016-0040).
- (2) Prospective adjustment volumes based on 6 months from October 1, 2016 to March 31, 2017. One-time adjustment volumes based on annual volumes.
- (3) Per Exhibit A, Tab 3, Schedule 2.
- (4) General service impacts per Exhibit A, Tab 3, Schedule 3.

UNION GAS LIMITED
Calculation of Sales Service and Direct Purchase Impacts for Typical Small and Large Customers - Union South

EB-2016-0040				2015 Deferral Disposition						
Line		2016 Apr QRAM Rates (1)				Disposition	One-Time	Prospective		Percentage
No.	Particulars	Bill	Unit Rate	Volume/	Billing	Unit Rate (3)	Adjustment	Recovery/(Refund)	Total Impact	Impact
		(\$)	(cents/m ³)	Demand (2)	Units	(cents/m ³)	(\$)	(\$)	(\$)	(%)
		(a)	(b)	(c)	(d)	(e)	(f) = (c x e)*10	(g) = (c x e)*10	(h) = (f + g)	(i) = (h / a)
<u>Small Rate M7</u>										
1	Delivery	656,550	1.8237	36,000	10 ³ m ³	(0.0020)	(720)	-	(720)	-0.1%
2	Gas Supply	4,890,816	13.5856	25,878	10 ³ m ³	0.1942	-	50,256	50,256	1.0%
3	Total	5,547,366	15.4093				(720)	50,256	49,536	0.9%
4	Sales Service Impact						(720)	50,256	49,536	0.9%
5	Direct Purchase Impact						(720)	-	(720)	-0.1%
<u>Large Rate M7</u>										
6	Delivery	2,513,626	4.8339	52,000	10 ³ m ³	(0.0020)	(1,040)	-	(1,040)	0.0%
7	Gas Supply	7,064,512	13.5856	37,380	10 ³ m ³	0.1942	-	72,592	72,592	1.0%
8	Total	9,578,138	18.4195				(1,040)	72,592	71,552	0.7%
9	Sales Service Impact						(1,040)	72,592	71,552	0.7%
10	Direct Purchase Impact						(1,040)	-	(1,040)	0.0%
<u>Small Rate M9</u>										
11	Delivery	129,389	1.8617	6,950	10 ³ m ³	(0.0044)	(306)	-	(306)	-0.2%
12	Gas Supply	944,199	13.5856	-	-	-	-	-	-	0.0%
13	Total	1,073,588	15.4473				(306)	-	(306)	0.0%
14	Sales Service Impact						(306)	-	(306)	0.0%
15	Direct Purchase Impact						(306)	-	(306)	-0.2%
<u>Large Rate M9</u>										
16	Delivery	384,526	1.9057	20,178	10 ³ m ³	(0.0044)	(888)	-	(888)	-0.2%
17	Gas Supply	2,741,302	13.5856	-	-	-	-	-	-	0.0%
18	Total	3,125,829	15.4913				(888)	-	(888)	0.0%
19	Sales Service Impact						(888)	-	(888)	0.0%
20	Direct Purchase Impact						(888)	-	(888)	-0.2%
<u>Average Rate M10</u>										
21	Delivery Charges	5,570	5.8937	95	10 ³ m ³	0.0566	53	-	53	1.0%
22	Gas Supply Charges	12,838	13.5856	68	10 ³ m ³	0.1942	-	132	132	1.0%
23	Total Bill	18,408	19.4793				53	132	185	1.0%
24	Sales Service Impact						53	132	185	1.0%
25	Direct Purchase Impact						53	-	53	1.0%

Notes:

- (1) Reflects Board-approved rates per Appendix A in Union's April 2016 QRAM filing (EB-2016-0040).
(2) Prospective adjustment volumes based on 6 months from October 1, 2016 to March 31, 2017. One-time adjustment volumes based on annual volumes.
(3) Per Exhibit A, Tab 3, Schedule 2.

UNION GAS LIMITED
Calculation of Sales Service and Direct Purchase Impacts for Typical Small and Large Customers - Union South

EB-2016-0040				2015 Deferral Disposition						
Line		2016 Apr QRAM Rates (1)				Disposition	One-Time	Prospective		Percentage
No.	Particulars	Bill	Unit Rate	Volume/	Billing	Unit Rate (3)	Adjustment	Recovery/(Refund)	Total Impact	Impact
		(\$)	(cents/m³)	Demand (2)	Units	(cents/m³)	(\$)	(\$)	(\$)	(%)
		(a)	(b)	(c)	(d)	(e)	(f) = (c x e)*10	(g) = (c x e)*10	(h) = (f + g)	(i) = (h / a)
<u>Small Rate T1</u>										
1	Delivery	132,068	1.7523	7,537	10³m³	0.0040	301	-	301	0.2%
2	Gas Supply	1,023,947	13.5856	-	-	-	-	-	-	-
3	Total	1,156,015	15.3379				301	-	301	0.0%
4	Sales Service Impact						301	-	301	0.0%
5	Direct Purchase Impact						301	-	301	0.2%
<u>Average Rate T1</u>										
6	Delivery	201,822	1.7450	11,566	10³m³	0.0040	463	-	463	0.2%
7	Gas Supply	1,571,302	13.5856	-	-	-	-	-	-	0.0%
8	Total	1,773,124	15.3306				463	-	463	0.0%
9	Sales Service Impact						463	-	463	0.0%
10	Direct Purchase Impact						463	-	463	0.2%
<u>Large Rate T1</u>										
11	Delivery	445,903	1.7402	25,624	10³m³	0.0040	1,025	-	1,025	0.2%
12	Gas Supply	3,481,185	13.5856	-	-	-	-	-	-	0.0%
13	Total	3,927,088	15.3258				1,025	-	1,025	0.0%
14	Sales Service Impact						1,025	-	1,025	0.0%
15	Direct Purchase Impact						1,025	-	1,025	0.2%
<u>Small Rate T2</u>										
16	Delivery	511,030	0.8624	59,256	10³m³	0.0037	2,192	-	2,192	0.4%
17	Gas Supply	8,050,283	13.5856	-	-	-	-	-	-	0.0%
18	Total	8,561,313	14.4480				2,192	-	2,192	0.0%
19	Sales Service Impact						2,192	-	2,192	0.0%
20	Direct Purchase Impact						2,192	-	2,192	0.4%
<u>Average Rate T2</u>										
21	Delivery	1,186,197	0.5997	197,790	10³m³	0.0037	7,318	-	7,318	0.6%
22	Gas Supply	26,870,938	13.5856	-	-	-	-	-	-	0.0%
23	Total	28,057,135	14.1853				7,318	-	7,318	0.0%
24	Sales Service Impact						7,318	-	7,318	0.0%
25	Direct Purchase Impact						7,318	-	7,318	0.6%
<u>Large Rate T2</u>										
26	Delivery	1,936,196	0.5232	370,089	10³m³	0.0037	13,693	-	13,693	0.7%
27	Gas Supply	50,278,811	13.5856	-	-	-	-	-	-	0.0%
28	Total	52,215,008	14.1088				13,693	-	13,693	0.0%
29	Sales Service Impact						13,693	-	13,693	0.0%
30	Direct Purchase Impact						13,693	-	13,693	0.7%
<u>Large Rate T3</u>										
31	Delivery	3,552,739	1.3027	272,712	10³m³	0.0071	19,363	-	19,363	0.5%
32	Gas Supply	37,049,561	13.5856	-	-	-	-	-	-	0.0%
33	Total	40,602,300	14.8883				19,363	-	19,363	0.0%
34	Sales Service Impact						19,363	-	19,363	0.0%
35	Direct Purchase Impact						19,363	-	19,363	0.5%

Notes:

- (1) Reflects Board-approved rates per Appendix A in Union's April 2016 QRAM filing (EB-2016-0040).
- (2) Prospective adjustment volumes based on 6 months from October 1, 2016 to March 31, 2017. One-time adjustment volumes based on annual volumes.
- (3) Per Exhibit A, Tab 3, Schedule 2.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 4, Page 4 of 23

- a) Has Union given renewal notices for the WDA and MDA two-year contracts? Please confirm that Union North no longer exists, and that part of it has gone to Union West.
-

Response:

- a) Union renewed both contracts effective November 1, 2017 for an additional 1-year term ending October 31, 2018.

Not confirmed. In Union's Dawn Reference Price and North T-Service proceeding (EB-2015-0181), Union applied to the Board to change the reference price used to set rates to better reflect where Union will be purchasing gas supply in the future. The changes identified in EB-2015-0181 are for cost allocation and ratemaking purposes only; the Union MDA, Union WDA, and Union SSMDA will be grouped into Union North West Zone and Union EDA, Union NCDA, and Union NDA will be grouped into Union North East Zone subject to the in-service date of the required TransCanada facilities anticipated for November 1, 2016. Each delivery area will continue to exist separately.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Ibid, Page 6 of 23

What is the Union North design day shortfall?

Response:

The Union North Design Day shortfall was 14,300 GJ for Winter 2015/2016.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Ibid, Page 21 of 23

a) Will Union renew the one-year Panhandle that currently expires on October 31, 2016?

Response:

a) Union is currently reviewing the renewal of the referenced Panhandle contract.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 4, Appendix A, Schedule 2

- a) Please redo the Assumption Table (T4, Appendix A, Schedule 1) using the most current gas commodity and tolls available at April 2016. Please provide quotes from recognized market indices, such as ICE, for the commodity prices.
 - b) Please discuss in detail the difference between the two Contracting Analyses in Schedule 1 and Schedule 2, including the dates the analyses were performed, and the source of each of the data points.
-

Response:

- a) Please see Attachment 1. In order to update the information to April 2016 as requested, the time horizon of the schedule is changed to May 1, 2016 through October 31, 2016 (originally November 1, 2015 through October 31, 2016).
- b) The landed cost analyses provided in Schedules 1 and 2 show the cost of the newly acquired transportation capacity compared to other transportation paths within Union's portfolio that were available for contracting at the time of Union's contracting decision. The assumptions for the analyses vary based on the input information used (i.e. ICE forward market pricing for one year contracts and ICF for contracts greater than one year).

Below are further differences on each of the analyses:

- Schedule 1 is a 1-year landed cost performed in January 2015 and pertains to the November 1, 2015 through October 31, 2016 time period using ICE forward pricing as of January 27, 2015.
- Schedule 2 is a 3-year landed cost performed in March 2015 and pertains to the November 1, 2015 through October 31, 2018 time period using ICF forward pricing as of their Q1 2015 outlook.

2015-2016 Transportation Contracting Analysis (Updated per BOMA 15)

	<u>Route</u>	<u>Point of Supply</u>	Basis Differential \$US/mmBtu	<u>Supply Cost</u> \$US/mmBtu	<u>Unitized</u> Demand Charge \$US/mmBtu	<u>Commodity</u> Charge \$US/mmBtu	<u>Fuel Charge</u> \$US/mmBtu	<u>100% LF</u> <u>Transportation</u> Inclusive of Fuel \$US/mmBtu	<u>Landed Cost</u> \$US/mmBtu	<u>Landed Cost</u> <u>\$Cdn/G</u>	<u>Point of Delivery</u>
	(A)	(B)	(C)	(D) = Nymex + C	(E)	(F)	(G)	(I) = E + F + G	(J) = D + I	(K)	(L)
(2)	TCPL Niagara	Niagara	-0.524	1.8553	0.1198	0.0000	0.0000	0.1198	\$1.98	\$2.35	Kirkwall
	Dawn	Dawn	0.045	2.4234	0.0000	0.0000	0.0000	0.0000	\$2.42	\$2.88	Dawn
*	Michcon to St. Clair	SE Michigan	0.002	2.3805	0.0615	0.0000	0.0443	0.1058	\$2.49	\$2.96	Dawn
(2)	Vector 2014	Chicago	-0.033	2.3463	0.1900	0.0018	0.0225	0.2143	\$2.56	\$3.05	Dawn
	Vector 1 Year (Mkt Quote)	Chicago	-0.033	2.3463	0.2100	0.0018	0.0225	0.2343	\$2.58	\$3.07	Dawn
(2)	Vector (2008-2016)	Chicago	-0.033	2.3463	0.2500	0.0018	0.0225	0.2743	\$2.62	\$3.12	Dawn
*(2)	PEPL (2012-2017)	Panhandle Field Zone	-0.225	2.1542	0.3200	0.0441	0.1038	0.4679	\$2.62	\$3.12	Ojibway
(2)	Trunkline/Panhandle	Trunkline Field Zone 1A	-0.063	2.3155	0.1923	0.0275	0.0884	0.3081	\$2.62	\$3.12	Ojibway
(2)	Trunkline/Panhandle	Trunkline Field Zone - ELA	-0.063	2.3155	0.1923	0.0299	0.0935	0.3157	\$2.63	\$3.13	Ojibway
(1)	TCPL SWDA	Empress	-0.914	1.4652	1.1940	0.0000	0.0340	1.2280	\$2.69	\$3.20	Dawn
	GLGT to TCPL	Northern Michigan	0.039	2.4180	0.2709	0.0074	0.0148	0.2931	\$2.71	\$3.22	Dawn
(2)	PEPL - (2014-2015)	Panhandle Field Zone	-0.225	2.1542	0.4200	0.0441	0.1038	0.5679	\$2.72	\$3.24	Ojibway
*	Marcellus to Dawn Market Based Transportation	Marcellus - Dom Sth Pt	-0.923	1.4559	1.2680	0.0000	0.0000	1.2680	\$2.72	\$3.24	Dawn
(2)	Panhandle Longhaul (2010-2017)	Panhandle Field Zone	-0.225	2.1542	0.4251	0.0441	0.1038	0.5730	\$2.73	\$3.24	Ojibway
(2)	TCPL CDA	Empress	-0.914	1.4652	1.2953	0.0000	0.0399	1.3351	\$2.80	\$3.33	Union CDA
	ANR-Michcon-Union (Gulf)	ANR South East	-0.075	2.3042	0.3881	0.0161	0.0985	0.5026	\$2.81	\$3.34	Dawn
	ANR-GLGT-TCPL	Fayetteville	-0.064	2.3151	0.5355	0.0216	0.0689	0.6260	\$2.94	\$3.50	Dawn
(2)	Alliance/Vector (2000-2015)	CREC	-0.239	2.1399	1.5952	-0.3749	0.1188	1.3392	\$3.48	\$4.14	Dawn

(1) For Reference Only
(2) Existing Union Gas Contract
* indicates path referenced in evidence for this analysis

Sources for Assumptions:

Gas Supply Prices (Col D): ICE Jan 27, 2015 Updated to ICE April 29, 2016 (Commodity prices for May 2016 through October 2016)

Fuel Ratios (Col G): Average ratio over the previous 12 months or Pipeline Forecast

Transportation Tolls (Cols E & F): Tolls in effect on Alternative Routes at the time of Union's Analysis

Foreign Exchange (Col K) \$1 US = \$1.240 \$1.255 CDN From Bank of Canada Closing Rate Jan 27, 2015 (Updated to April 29, 2016)

Energy Conversions (Col K) 1 dth = 1 mmBtu = 1.055056

Union's Analysis Completed: Jan 2015-Updated June 2016

Paths included in analysis are those with comparable services available for contracting, as well as relevant benchmarks and currently contracted paths.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Exhibit A, Tab 4, Schedule 1

- a) What is the source of the basis differential used in column (C) on the table? Is it in the NYMEX futures forward strip? If so, taken on what date? Please explain fully.
- b) The two tables do not contain the same route descriptions. Please provide a table which assembles all the relevant routes as part of the exercise referred to in question (a) above.
- c) Given that the landed cost is by far the lowest in the Niagara route, why does Union not deliver more gas into its franchise via the Niagara route?

Response:

- a) The source of the basis differentials in column (c) is the ICE monthly forward prices as of January 27, 2015. In calculating the Supply cost in column (d), the basis differentials in column (c) are added to the NYMEX Henry Hub monthly forward prices. In this schedule, the average forward price for NYMEX Henry Hub supply was \$3.367 US/MMBtu.
- b) Below is a table that adds Pipeline Path descriptions to supplement the Route descriptions provided in Schedule 1.

<u>Route</u>	<u>Pipeline Path</u>
TCPL Niagara	TransCanada to Union at Kirkwall
Dawn	Dawn purchased supply (no associated Pipeline)
Marcellus to Dawn Market Based Transportation	Market based transportation from Dominion South Point to Dawn
Michcon to St. Clair	Michcon ("aka" DTE) to Union at St. Clair
Vector 2014	Vector Pipeline - Chicago to Dawn
Vector 1 Year (Mkt Quote)	Vector Pipeline - Chicago to Dawn
PEPL (2012-2017)	Panhandle Pipeline to Union at Ojibway
Vector (2008-2016)	Vector Pipeline - Chicago to Dawn
GLGT to TCPL	Great Lakes Pipeline to Transcanada Pipeline (at St. Clair) to Union at Dawn
Trunkline/Panhandle	Trunkline Pipeline to Panhandle Pipeline to Union at Ojibway
PEPL - (2014-2015)	Panhandle Pipeline to Union at Ojibway
Trunkline/Panhandle	Trunkline Pipeline to Panhandle Pipeline to Union at Ojibway

<u>Route</u>	<u>Pipeline Path</u>
Panhandle Longhaul (2010-2017)	Panhandle Pipeline to Union at Ojibway
ANR-Michcon-Union (Gulf)	ANR Pipeline to Michcon ("aka" DTE) to Union at St. Clair
Alliance/Vector (2000-2015)	Alliance Pipeline to Vector Pipeline to Union at Dawn
ANR-GLGT-TCPL	ANR Pipeline to Great Lakes Pipeline to TransCanada Pipeline (at St. Clair) to Union at Dawn
TCPL SWDA	TransCanada to Union at Dawn
TCPL CDA	TransCanada to Union at Union CDA

- c) Additional FT capacity from Niagara to Kirkwall is currently not available for short-term contracting from TransCanada (i.e. without requiring a 15-year commitment to support facility expansion). Please see the response at Exhibit B.TransCanada.1 for further information on Niagara including liquidity and infrastructure limitations.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: The Union Presentation (Stakeholder Conference), Page 8

- a) Please provide the reason for the very large variance (\$203.7 million) in 2014 vs 2015 transmission capital spend.
 - b) What was the forecast of transmission spend in each of 2014 and 2015?
-

Response:

- a) The increases in 2015 transmission capital spend versus 2014 is due to increased capital pass-through project costs with respect to: Brantford-Kirkwall/Parkway D, 2016 Dawn-Parkway, and 2017 Dawn-Parkway.
- b) 2015 forecast: \$449.6 million
2014 forecast: \$192.5 million
2013 Board-approved: \$113.8 million

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Ibid, Page 14

Could you please provide details on each of the 2016 Trends and Cost Pressures listed at page 14?

Response:

As shown at Exhibit A, Tab 2, Appendix A, Schedule 13, line 32, while 2015 net utility operating and maintenance expense is flat to 2013 Board-approved levels, Union is experiencing several trends and cost pressures that will need to be managed in 2016 and beyond. Specifically:

- Salary Inflation
Salaries have been trending at 3% historically with a reduction in 2016, in line with labour market conditions.
- Employer Benefit Costs
Increases in employer benefit costs are being driven by legislated benefits and employee savings plan in line with salary increases, flexible benefits due to increased claims and premiums, and costs associated with Spectra’s long service award and employee wellness programs.
- Line Locates and Sewer Safety Inspections
Union is experiencing increases in requests for line locates and is expecting increases in requests for sewer safety inspections through Ontario One Call.
- Pipeline Integrity
Union expects an increase to Integrity Management Program spending due to system expansion and continual improvement of practices, processes, and use of available technology to meet regulatory expectations and ensure the ongoing safety and integrity of pipeline system.
- Reinforcements
Reinforcement work is planned to be higher in 2016-2018 to reinforce the distribution system in support of growth.
- Maintenance Capital
Increased municipal projects and replacement of bare and unprotected pipe is driving increases in maintenance capital work.

- Facility Operating Costs
Union is experiencing increases in general operating costs (leases, maintenance, utilities) for facilities Union rents/owns.
- IT Software Maintenance Costs:
The costs of renewing agreements are increasing higher than inflation.
- Postage Prices
Higher Canada Post postage prices have been partially offset by increased efforts promoting paperless billing through residential marketing programs.
- Foreign Exchange Sensitivity
Union experiences FX sensitivity on certain items such as insurance premiums, software maintenance, audit fees, and affiliate charges from the US.
- Insurance Premiums
Increased insurance premiums are being driven by increased capital work and changes in market conditions for insurance policies.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Gas Supply Plan, Page 26

At page 26, the table Winter Extremes in the Northeast shows Kirkwall Imports (of largely Marcellus/Utica gas) plotted against temperatures in New York City/State. It shows, and Mr. Shorts noted during his presentation, that as prices in New York grew colder, exports to Canada at Niagara declined; in other words, Marcellus/Utica gas tended to stay in the United States.

- a) Why did this happen?
 - b) Please discuss the implication of this fact for Ontario's security of supply of natural gas going forward.
-

Response:

- a) As temperatures in the U.S. Northeast drop, the demand for natural gas in that area increases. In turn, prices for natural gas in the U.S. Northeast will increase as there is more demand competing to secure supply. Supply being produced in Appalachia will seek the highest value, premium-priced U.S. Northeast markets. As more supply flows to meet demand in the U.S. Northeast from Appalachia, this leaves less available supply to flow from Appalachia into Ontario, reducing imports at import/export points such as Kirkwall. As a result, net Kirkwall imports to Ontario from the U.S. Northeast decline during periods of extreme cold as was the case in Winter 2014/2015 and Winter 2015/2016.
- b) Ontario natural gas customers are well-served by the multiple interconnected pipelines that access multiple natural gas supply basins and trading points. Ontario's natural gas supply diversity is critical to ensuring that Ontario customers have secure and reliable access to natural gas supply when required.

The Dawn Hub is connected to most of the major supply basins in North America (including the Western Canadian Sedimentary Basin) through more than 10 upstream pipelines with transportation capacity exceeding 7 Bcfd and growing. Dawn is also directly connected to more than 270 Bcf of underground natural gas storage in Ontario with maximum storage withdrawals of over 5 Bcfd. Ontario also has access to nearly 675 Bcf of storage in adjacent Michigan through its upstream pipeline connections. In total, the Dawn Hub has over 12 Bcfd of natural gas supply available. The diversity of supply available at the Dawn Hub provides significant reliability and security of supply for Ontario natural gas consumers.

In addition, Ontario LDCs, including Union, hold FT capacity to deliver natural gas from major supply basins and trading points into Ontario, including the Dawn Hub. This includes capacity on upstream pipeline systems such as the TransCanada Mainline, Vector Pipeline, the Panhandle Eastern/Trunkline systems and DTE/St. Clair. Recently, Ontario LDCs have committed to FT capacity on the NEXUS Pipeline which is connected to Appalachian production from the Marcellus and Utica, further diversifying supply to Dawn. Firm upstream transportation capacity held by the Ontario LDCs ensures that supply is available to Ontario natural gas consumers regardless of weather or market conditions in other North American markets, including the U.S. Northeast.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Ibid, Page 34

- a) Has the NEB made its decision on TCPL's proposed STS changes? Please provide an update on the case. Please discuss Union's option.
-

Response:

- a) No, the NEB has not issued a decision on the proposed STS changes. TransCanada filed its "Storage Transportation Service (STS) Modernization and Standardization Application" with the NEB on February 18, 2016. The NEB issued its first Hearing Order on April 6, 2016, and assigned the Application docket number RH-001-2016. Union is registered as an intervenor in the proceeding, and is actively participating in order to protect the interests of its customers.

The written portion of the proceeding is currently scheduled from April 22 to August 29, 2016. During that time, TransCanada and intervenors have the opportunity to file evidence, information requests, and letters of comment according to the detailed timetable provided in the NEB's Hearing Order.

The oral portion of the proceeding is currently scheduled to begin September 19, 2016, with further details to be determined by the NEB at a future time.

Union is unable to determine any actions that will need to be taken until the decision is issued.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Ibid, Page 52

To what does Union attribute its rather mediocre ratings on the issue of being customer focused?
What is it doing to improve its performance in this area?

Response:

Union disagrees with BOMA's characterization of its ratings for being customer focussed as "mediocre". A 70% rating means that fully 70% of customers have rated Union at 8, 9, or 10 on a 10 point scale. Given Union's performance relative to the Service Quality Indicators, a specific improvement plan is not required.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto (“BOMA”)

Reference: Ibid, Page 55

- a) Please provide a copy of the CGA document on Asset Management.
 - b) Why does Union lag behind the major Ontario electric utility in preparing an asset management plan? When will the document be filed with the Board?
-

Response:

- a) The CGA guiding document on Asset Management is available on the CGA website. The link to the document is below:

<http://www.cga.ca/wp-content/uploads/2015/05/AM-TF-GUIDING-DOCUMENT-Mar-2-2010-FINAL.pdf>

- b) Electricity distributors are required to file an Asset Management Plan (“AMP”) per the Board’s filing guidelines for electricity. The current natural gas filing guidelines do not require natural gas distributors to file an AMP.

Union has formal processes in place to ensure it is properly managing its assets, and have identified an AMP as a method of consolidating and summarizing these existing processes in a way that can be more easily communicated to internal and external stakeholders.

Union is developing an AMP and will file it as part of Union’s 2019 rebasing proceeding.

UNION GAS LIMITED

Answer to Interrogatory from
Building Owners and Managers Association, Greater Toronto ("BOMA")

Reference: Ibid, Page 56

- a) Please provide background documents for Union's Risk Hazard Identification and Risk Assessment program.

Response:

- a) Union has a number of processes to identify hazards, both related to personal safety and asset safety. Union's Operations Management System defines the requirements for Risk Management (please see Attachment 1 "OMS – Risk Management"). Both personal and asset risk reviews are completed using a standard risk matrix (please see Attachment 2 – Risk Matrix & Process Summary).

Union has an established Incident Learning and Prevention ("ILP") program that includes a process for identifying and analyzing all hazards and potential hazards. Any potential hazard identified by an employee is reported directly to an employee's manager. The potential hazard is made safe (controlled) and assessed to determine the appropriate course of action. The potential hazard is logged on an "Incident without Loss / Hazard Reporting" form (please see Attachment 3 – Incident Reporting – Form 8322) which is submitted to the ILP program. The manager of ILP communicates learnings from incidents across the organization.

In addition to the ILP hazard identification process, employees are required to complete a Worksite Hazard Checklist (please see Attachment 4 – Worksite Hazard - Form 8244). The checklist identifies potential hazards on a worksite as well as associated controls and includes fields for any new hazards that may be identified and controls applied.

As part of Union's Risk Management practice, annual hazard and risk review workshops are completed with key stakeholders. The outputs of these annual risk reviews are combined with the above hazard and risk assessments, with significant risks communicated through all levels of the organization through an established governance process (please see Attachment 5 – OMS Governance). The identified risks are prioritized for inclusion in Union's annual capital budget process.

3.1 Risk Management

To describe the risk management expectations and to identify the applicable risks that can be controlled or influenced. The purpose is to reduce or eliminate risks and maximize beneficial results using a systematic approach to decision making.

Accountabilities and Responsibilities under OMS

The OMS Leadership Group shall:

- Have the knowledge and understanding in order to accept and endorse significant risks and associated mitigation strategies.

Senior Management shall:

- Maintain the organizations risk management processes.
- Ensure compliance to the Risk Management process by assessing, accepting, endorsing and elevating risks.

Accountable Managers shall:

- Ensure compliance to the Risk Management process throughout their operations, by identifying, assessing, accepting, endorsing, elevating, and mitigating risks.
- Ensure contractors provide feedback through appropriate communication methods.

Employees contribute by:

- Performing their daily functions and executing on specific objectives in a safe and efficient manner in accordance with all procedures
- Identify and communicate hazards through appropriate channels.



3.1 Risk Management

Requirements

The risk management process shall contain, at a minimum:

- The details for the identifying, assessing, accepting, endorsing, elevating, and mitigating risks.
- A repository for all the results of risk assessments in a Risk Registry.
- The registry shall be reviewed regularly and updated, at a minimum, annually.

Hazard Identification:

Hazards that have resulted or may result in loss shall be identified. Consideration must be given to normal operations, abnormal operations and potential emergency situations.

Risk Assessment:

Identified hazards are to be assessed to determine the risk they pose to the organization. When assessing hazards, consider:

- The likelihood of occurrence, taking into account any objective frequency data or professional judgment.

Determine the risk level of each identified hazard using the Risk Matrix.

- The assessment is performed by combining the consequence and likelihood of each hazard using the OMS Risk Matrix.
- Identify all possible consequences and estimate the associated severity levels.
 - The consequence with the highest combination of likelihood and consequent will take precedent for the analysis.
 - In the event of equal risks, the scenario with the highest severity shall take precedent for the assessment.
- Estimate the likelihood of the hazard occurrence based on available statistics and/or past experience.
- Assess the risk level for each hazard by finding the intersection of the highest severity consequence and likelihood of occurrence on the Risk Matrix.

Compare the risk level from the assessment with the control requirements and apply supplemental professional judgment, if required, to establish the final risk level. This supplemental judgment may include:

- A more detailed review of legal, economic, operational and stakeholder issues.
- A more comprehensive and/or quantitative assessment.
- Applying the analysis to a more focused scope.

Risks are to be documented in the Operations or EHS Risk Registry.

Risk Acceptance, Endorsement and Elevation:

Once a level of risk is determined, appropriate procedures and accountabilities are to be followed to accept elevate and endorse those risks.

Risk Mitigation:

The controls shall be developed and implemented to bring the risk to a level that is acceptable. Planning for mitigation should maximize potential benefits of any new asset or control that is implemented.

All reasonable efforts should be made to implement controls based on the following hierarchy while taking into account the nature of the risk and financial considerations:

- Elimination
- Substitution
- Engineering controls
- Operating controls
- Administrative controls (i.e. operating practices, processes and procedures, work instructions and signage)
- Personal protective equipment and monitor effectiveness
- Ensuring contingencies are in place to manage residual risk

If changes are made to controls or endorsed mitigation plans, those changes must follow an appropriate management of change process.

Operations Management System

Section 3 – Risk Management

Issued By: Ruth Dekker

Owner: Paul Rietdyk

Issue Date: 2015-09

Supersedes: 2009-05

Page 3 of 4

Risk Assessment OMS Risk Matrix

- A 5 X 5 risk matrix
 - Likelihood and consequence rating each have a 5-point scale
- Seven Consequence Categories
 - Injury, Regulatory, Loss of Containment, Environmental, Financial, Reliability / Customer Impact, Reputation
- Used to assess all operational risks consistently

Filed: 2016-06-16
EB-2016-0118
Exhibit B.BOMA.23
Attachment 2
Page 1 of 2

ALMOST CERTAIN	L5	Likelihood/Probability	III	II	II	I	I
LIKELY	L4		III	III	II	II	I
OCCASIONAL	L3		IV	III	III	II	II
RARE	L2		IV	III	III	III	II
REMOTE	L1	IV	IV	IV	III	III	
		Consequence					
		C1	C2	C3	C4	C5	

Union Gas Risk Management Cycle



Filed: 2016-06-16
EB-2016-0118
Exhibit B.BOMA.23
Attachment 2
Page 2 of 2

Incident Without Loss / Hazard Reporting Form

Employee Information		
First Name	Last Name	Work Location
Department <input type="checkbox"/> STO <input type="checkbox"/> Major Projects <input type="checkbox"/> Distribution Operations <input type="checkbox"/> Office <input type="checkbox"/> Engineering <input type="checkbox"/> Other		

Information				
Type of Incident <input type="checkbox"/> Injury <input type="checkbox"/> Vehicle <input type="checkbox"/> Environmental <input type="checkbox"/> Operational <input type="checkbox"/> Other				Category <input type="checkbox"/> IWOL <input type="checkbox"/> Hazard
Date of Incident	Time of Incident	Date Reported	Time Reported	Time Employee Began Work
Was weather a factor? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, describe:			
Explain Step by Step what occurred with as much detail as possible:				
What task or type of work was being completed at the time:				
Describe the location - Customer or Company Property				
Describe any tools or equipment used at the time				
Were there any human factors you feel contributed to this? Examples: Stress, Fatigue due to working hours or driving a long distance, etc.				
Are you aware of this type of incident occurring before?				
What do you think should be done differently to prevent another Incident? (Corrective actions recommended)				
Risk Rank (To be completed by EHS Coordinator) <div style="display: flex; justify-content: space-around; align-items: center;"> <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV </div>				

Submission	
To submit the form electronically, send to the local EHSC and your manager.	Manager's Name

Definitions
1) - Hazard – a hazard is condition which introduces the potential to cause loss (e.g., personal harm, property damage, process loss/interruption, etc.) 2) - Incident Without Loss (near miss) - is an event that, under different circumstances, could have resulted in injury to employees, damage to company property (e.g., vehicle, equipment, facilities, etc.), environmental harm or process loss/interruption.

WORKSITE HAZARD CHECKLIST

Complete prior to performing work



Completed By: _____

Date: _____

Instructions

- 1) **Dist Ops: If there is a job package only complete Section B**
STO: Complete the entire form
- 2) **All workers must review and sign form prior to commencing work or upon arrival on-site**
- 3) **For multi-day jobs, review at beginning of each day**
- 4) **Submit completed checklist to manager or return to job package envelope/folder**

SECTION A

Discussed With: _____

Task: _____

Location: _____

Emergency Contact Name and Phone _____

Could this work significantly impact public safety? ☐ Yes ☐ No

If yes, considerations: _____

Could this work have a significant impact on the environment? ☐ Yes ☐ No

If yes, considerations: _____

Multiple Location Review (only if performing similar jobs at multiple sites in a day)

Location	Concurrent Work (Yes/No)	LOTO Req'd (Yes/No)	Hot Work Req'd (Yes/No)	Controls (MCR, GC, Dispatch) Informed (Yes/No)	Section B Reviewed (note changes)

SECTION B

General Safety Questions

	YES	NO*
Does everyone have the proper PPE to perform their task safely?		
Has everyone involved been given the instructions required to perform their task?		
Does everyone involved have the required licenses/certifications to complete their task?		
Are you knowledgeable of all required procedures for your task?		

* If you answer "NO" to any of the above, correct the situation. If you require further support contact your manager.

If any "YES" responses change to "NO" during the task, stop and correct the situation.

Gas Atmosphere Evaluation

All readings = zero ☐

Any readings above zero ☐ → complete Gas Atmosphere Evaluation Form (8055)

Not required ☐

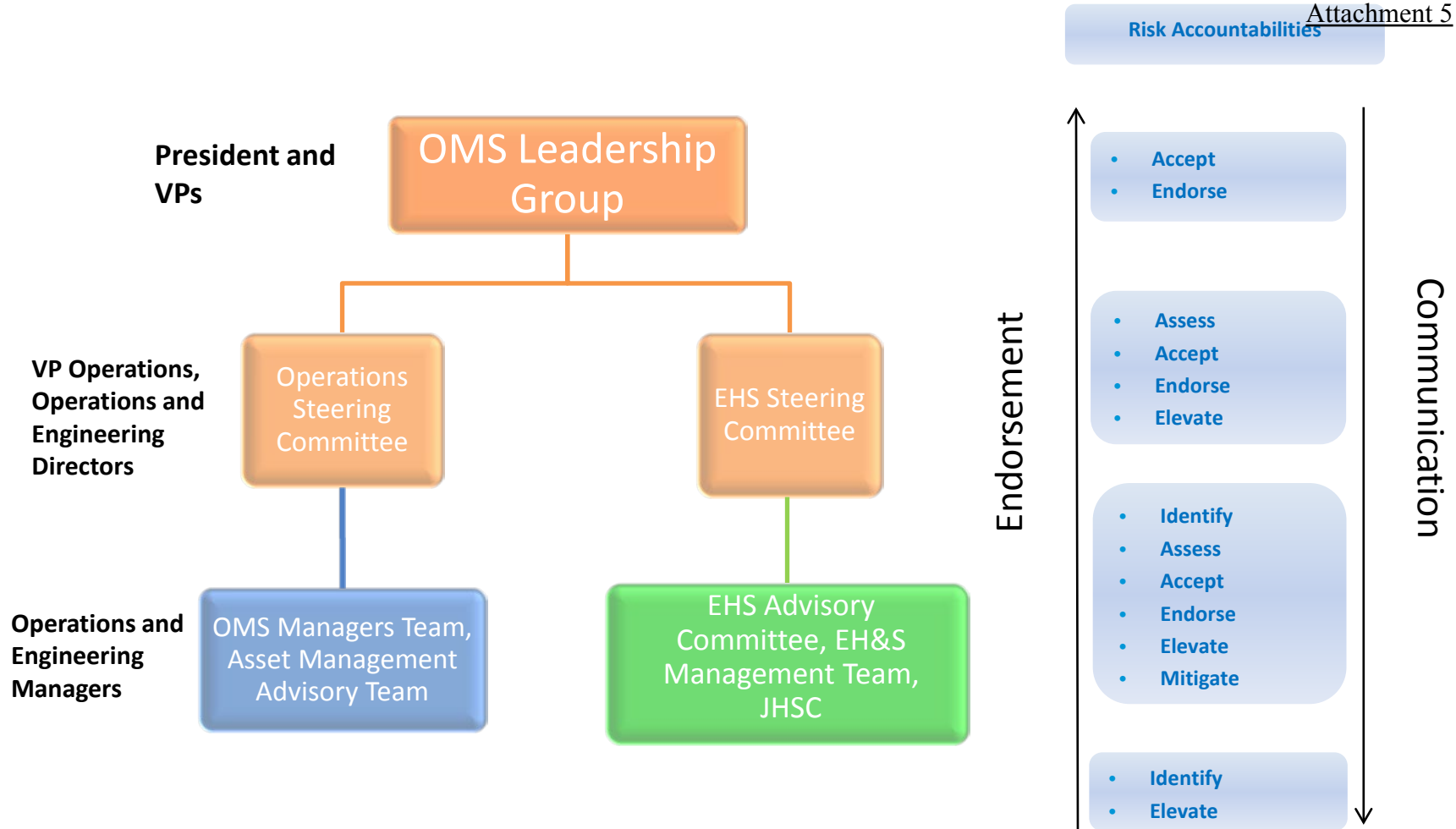
Concurrent Work (only if applicable)

Crew/Visitor On Site	Contact Name	How will their job affect yours?

Identify the potential hazards associated with the work activity and the control(s) to mitigate that hazard. Utilize typical controls listed or specify in the space provided. If appropriate control(s) cannot be implemented contact manager.

POTENTIAL HAZARD	TYPICAL CONTROL OPTIONS	POTENTIAL HAZARD	TYPICAL CONTROL OPTIONS
<input type="checkbox"/> Concurrent work	<ul style="list-style-type: none"> - Lock-out/Tag-out - Communication 	<input type="checkbox"/> Noise	<ul style="list-style-type: none"> - Exposure limits - Warning signs - PPE: Hearing protection
<input type="checkbox"/> Confined space	<div> <div> STO <ul style="list-style-type: none"> - Procedure - Permit/Log </div> <div> Dist Ops <ul style="list-style-type: none"> - If identified – DO NOT ENTER – contact manager </div> </div>	<input type="checkbox"/> Lifting	<ul style="list-style-type: none"> - Qualified operator - Isolation - Equipment Pre-use - Tagline - Inspection - Barriers - Log book - Escape device - Load secure - Signal person - PPE: hard hat
<input type="checkbox"/> Driving	<ul style="list-style-type: none"> - Circle check - Weather, wildlife, fatigue, stationary objects - Barricades - Awareness of surroundings 	<input type="checkbox"/> Outdoor hazards	<ul style="list-style-type: none"> - Do not enter if at risk (animals, hogweed) - Animals, insects, weeds - Personal protective measures (e.g. PPE, sunscreen, repellent)
<input type="checkbox"/> Environmental spill	<ul style="list-style-type: none"> - Groundcover (tarp) - Waste handling - Spill kit - PPE 	<input type="checkbox"/> Overhead hazards	<ul style="list-style-type: none"> - Signage/markings - Overhead utilities - PPE – hard hat for falling objects
<input type="checkbox"/> Ergonomics	<ul style="list-style-type: none"> - Job-specific tools - Buddy system - Heavy lift/pull/push - Proper techniques - Mechanical lifting aids - Awkward positions - Decrease loads - PPE - Twisting/wrenching - Rest and stretch - Repetition 	<input type="checkbox"/> Pipeline Contaminants	<ul style="list-style-type: none"> - Prevent ignition sources - Ventilation - Air monitoring (Gastec tubes) - Handling procedures - Waste handling procedures - PPE: Respiratory and other
<input type="checkbox"/> Excavation	<ul style="list-style-type: none"> - Approval - Gas scope test - Locates - Shoring - Clearance - No deep water - Barriers - PPE: vests, hard hat - Access/egress - Suspect soils 	<input type="checkbox"/> Slips/trips	<ul style="list-style-type: none"> - Slip resistant footwear (e.g. YakTrax) - Caution with uneven ground - Housekeeping - Caution if snow/ice covered
<input type="checkbox"/> Falls	<ul style="list-style-type: none"> - Housekeeping - Guardrail - Fall arrest - Rescue plan - Approved scaffold/ladder - Three point contact 	<input type="checkbox"/> Radiation (contractor use)	<ul style="list-style-type: none"> - Barriers (do not approach x-ray equip)
<input type="checkbox"/> Gas Atmosphere	<ul style="list-style-type: none"> - WIGA procedure - Flammables stored properly - Fire and explosion - No ignition source/ static/intrinsically safe - Asphyxia - Lock-out/Tag-out - Ventilation/air mover/purge - Hot work permit (STO) - Gas scope testing → gas readings form - Fire watch, extinguishers - PPE : FR clothing, gloves, face shield - Safety zone 	<input type="checkbox"/> Temperature extremes	<ul style="list-style-type: none"> - Water available - Work/rest regimen - Proper clothing
<input type="checkbox"/> Fire and Explosion	<ul style="list-style-type: none"> - Hot work - Static - Burns - Welding 	<input type="checkbox"/> Tools	<ul style="list-style-type: none"> - Complete Pre-use Inspection
<input type="checkbox"/> Hazardous energy	<ul style="list-style-type: none"> - Qualified personnel - Barriers - Hydraulic, Pneumatic, Electrical, Mechanical, Thermal, Pressure, Chemical - Lock-out/Tag-out - Stopping - Guards - GFCI - Grounding/Bonding - PPE - Ventilation - Blow down - Signage 	<input type="checkbox"/> Traffic	<ul style="list-style-type: none"> - Traffic control plan - Flag man, signs, cones - PPE: high visibility
<input type="checkbox"/> Hazardous Materials e.g. fumes, gas, dust, oils, glycol, H ₂ S, SO ₂ , VOCs, odourant, CO, flammables, methane, coal tar	<ul style="list-style-type: none"> - MSDS (available) - PPE: Respiratory - Ventilation - PPE: clothing, gloves, face shield, goggles - Air monitoring - Eyewash - Labels - Handling procedures 	<input type="checkbox"/> Transport of Dangerous Goods	<ul style="list-style-type: none"> - Bill of Lading - Spill kit - Shipping document - USR inventory - TDG training - Qualified driver - Placards/labelling
<input type="checkbox"/> Designated Substances Asbestos, benzene, lead, isocyanates, silica, mercury		<input type="checkbox"/> Water without barriers	<ul style="list-style-type: none"> - Life jacket - Fall arrest/prevention - Local rescue plan – never work alone
		<input type="checkbox"/> Weather (Check forecast)	<ul style="list-style-type: none"> - Stop work conditions (e.g. lightning) - Adequate work cover
		<input type="checkbox"/> Workplace Violence	<ul style="list-style-type: none"> - Previous customer notes - Do not enter if at risk - Radio/cell contact
		<input type="checkbox"/> Working Alone	<ul style="list-style-type: none"> - Radio/cell contact - Check-in procedure
ADDITIONAL HAZARD(S)		CONTROL(S) IMPLEMENTED	

OMS Risk Governance



UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: Exhibit A, Tab 1, p. 6

Please explain how the released capacity amount of \$3.26 million was determined.

Response:

Unutilized upstream transportation capacity is released and sold on the secondary market to minimize UDC when that capacity is not required to meet in-franchise demand requirements. The released capacity revenue represents the total amount paid to Union for capacity that was released and sold in the secondary market. The value attained for capacity in the secondary market is determined through an RFP process. Revenues generated from transportation releases are credited to the UDC Variance Account mitigating the overall UDC impact as shown at Exhibit A, Tab 1, p.6, Table 2.

UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: Exhibit A, Tab 1, p. 16

Please provide a detailed explanation as to how the \$.760 million related to the GDAR account was calculated. Please explain why salaries and expenses are included. Are these salaries solely related to GDAR activities?

Response:

As described at Exhibit A, Tab 1, p.16, consistent with Union’s 2013 and 2014 Deferral Account Disposition proceedings (EB-2014-0145 and EB-2015-0010), Union replaced the GDAR capital costs with an annual revenue requirement related to the capital costs.

Accordingly, the proposed GDAR deferral account balance of \$0.760 million represents the 2015 revenue requirement associated with \$2.221 million of capital costs incurred between 2011 - 2013. The revenue requirement represents the annual cost of service in 2015 related to these capital expenditures and includes depreciation expense, return and income taxes. Please also see Exhibit A, Tab 1, p.16, Table 4.

Salaries and expenses are included in the capital costs as these costs were directly incurred in order to implement the amendments to GDAR based on the Board’s Notices of Amendments to a Rule described at Exhibit A, Tab 1, p.15. As a result, these costs were directly capitalized to the project and included in the annual revenue requirement calculation.

UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: Exhibit A, Tab 1, p. 19

Please explain how the DSM costs were derived? Please provide a detailed breakdown of the \$1.7 million in DSM costs.

Response:

The CDM costs include the salaries for the CDM delivery team of account managers and program managers required to deliver the programs as well as expenses and costs for advertising and promotion. The CDM cost breakdown is as follows:

Costs	Particulars
	(\$000's)
Salaries	1,521
Expenses	182
Advertising & Promotion	7
Total Costs	1,710

UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: Exhibit A, Tab 1, p. 26

Please explain why the NAC volume decrease increases storage costs, and the NAC volume increase decreases storage costs.

Response:

Please see the response at Exhibit B.BOMA.5.

UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: Exhibit A, Tab 4, p. 23

Is the Incremental Transportation Contracting Analysis provided for information purposes only?
If not, what relief is Union seeking in this proceeding with respect to its firm transportation arrangements?

Response:

Yes, the incremental transportation contracting analysis is provided for information purposes only.

UNION GAS LIMITED

Answer to Interrogatory from
Canadian Manufacturers & Exporters ("CME")

Reference: Exhibit A, Tab 1, Pages 8-9 of 53, and Appendix A, Schedule 2

Union included optimization revenue of \$15.56 million in rates for 2015. For 2015, Union earned only \$7.739 million in net revenues from upstream transportation optimization. It is Union's position that because \$15.56 million has already been credited through rates, \$8.6 million (\$6.965 million less \$15.56 million) is to be collected from ratepayers through this deferral account disposition.

CME wishes to better understand Union's poor upstream transportation optimization performance for 2015. In this regard:

- a) Has Union ever earned less in net revenues from upstream transportation optimization than the amount embedded in rates for any year prior to 2015? If yes, please identify the year in which this occurred, and set out how the Board dealt with the amount credited into rates in excess of the amount collected through optimization revenue.
- b) Please provide an explanation for the 10% Union Incentive Payment of \$774,000 identified at Line No. 6 of Appendix A, Schedule 2.
- c) How much has Union credited in rates for 2016 for optimization revenue?
- d) In the absence of FT RAM Exchange Revenue, does Union have any prospect of meeting or exceeding the optimization revenue embedded in rates for 2016 and beyond?

Response:

- a) Yes, in 2014, Union earned \$7.919 million in net revenues from Upstream Transportation Optimization compared to the Board-approved \$14.918 million. Please see Attachment 1. Union retained 10% or \$0.792 million and disposed of the remaining \$9.883 million through the 2014 Disposition of Deferral Account Balances and 2014 Earnings Sharing Amount proceeding (EB-2015-0010) as approved by the Board.
- b) In its EB-2011-0210 Decision, the Board stated:

"The Board finds that 90% of all optimization net revenues shall accrue to ratepayers and 10% shall accrue to Union as an incentive to continue to undertake these activities on behalf of ratepayers." p.39

- c) Included in Union's 2016 rates is the Board-approved gas supply optimization margin of \$13.426 million. Please see the response at Exhibit B.Energy Probe.6, Attachment 1 for the calculation of the Board-approved gas supply optimization margin.
- d) Union does not foresee being able to meet or exceed the optimization revenue embedded in rates for 2016 and beyond.

UNION GAS LIMITED
Transportation Optimization Deferral Account (No. 179-131)

Line No.	Particulars (\$000's)	2013 Board- Approved (a)	2014 Actual Total (c)
1	Base Exchange Revenue	9,118	7,919
2	FT-RAM Exchange Revenue	5,800	-
3	Total Exchange Revenue	14,918	7,919
4	Exchange Revenue Subject to Deferral		7,919
5	Ratepayer portion - 90%	13,426	7,127
6	10% Union Incentive Payment		792
7	Less: Gas Supply Optimization Margin in Rates	13,426	17,010
8	Deferral balance payable to/(collectible from) ratepayers		(9,883)

UNION GAS LIMITED

Answer to Interrogatory from
Canadian Manufacturers & Exporters (“CME”)

Reference: Exhibit A, Tab 2, Page 2 of 9

Table 1, Line 10 shows that the cost of capital has increased from \$280.9 million in 2014 to \$294.7 million in 2015. Please describe the main drivers for this year-over-year increase.

Response:

The 2015 cost of capital is \$292.4 million as shown in Exhibit A, Tab 2, Corrected, p.2, Table 1, line 10.

The main driver for the year-over-year increase is a \$252 million increase to Rate Base largely driven by the in-service of capital pass-through project assets during 2015.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

Reference: Exhibit A, Tab 1, Page 8 and
Exhibit A, Tab 1, Appendix A, Schedule 2

Preamble: On an actual basis, consistent with the method approved in its EB-2011- 0210 Decision and Rate Order, Union credited \$15.565 million in rates to ratepayers during 2015, \$2.139 million greater than the Board-approved amount of \$13.426 million.

- a) Please provide the calculations for the \$15.565 m in rates in 2015.
 - b) For reference please provide the calculations for 2013 base year and for 2014.
-

Response:

- a) To clarify \$13.426 million of upstream optimization is included in 2015 rates. The \$15.565 million is the actual amount collected on actual consumption in 2015. Please see the response at Exhibit B.Staff.2 a).
- b) Please see Attachment 1.

Year 2013
Board-approved

Deferral Disposition - Gas Optimization

<u>Rate Class</u>	<u>Volumes 10³m³</u>	<u>Rate: cents / m³</u>	<u>Gas Optimization (\$000's)</u>
Rate 01	884,421	0.4432	3,920
Rate 10	322,887	0.4156	1,342
Rate 20	6,873	4.1642	286
Rate 20T	73,456	0.2597	191
Rate 25	42,913	0.2720	117
Rate M1	2,271,443	0.2824	6,415
Rate M2	378,137	0.2824	1,068
Rate M4	16,855	0.2824	48
Rate M5	14,132	0.2824	40
Rate M10	48	0.2824	0
Total			13,426

Year 2013
Actual

Deferral Disposition - Gas Optimization

<u>Rate Class</u>	<u>Volumes 10³m³</u>	<u>Rate: cents / m³</u>	<u>Gas Optimization (\$000's)</u>
Rate 01	981,293	0.4432	4,350
Rate 10	359,365	0.4156	1,493
Rate 20	5,365	4.1642	223
Rate 20T	59,713	0.2597	155
Rate 25	98,286	0.2720	267
Rate M1	2,598,950	0.2824	7,340
Rate M2	594,664	0.2824	1,679
Rate M4	29,870	0.2824	84
Rate M7	10,920	0.2824	31
Rate M5	25,776	0.2824	73
Rate M10	266	0.2824	1
Total			15,697

Year 2014
Actual

Deferral Disposition - Gas Optimization

<u>Rate Class</u>	<u>Volumes 10³m³</u>	<u>Rate: cents / m³</u>	<u>Gas Optimization (\$000's)</u>
Rate 01	1,053,067	0.4229	4,459
Rate 10	376,384	0.3906	1,471
Rate 20	5,552	4.1642	231
Rate 20T	61,724	0.2597	160
Rate 25	94,822	0.2720	258
Rate M1	2,942,275	0.2824	8,309
Rate M2	670,955	0.2824	1,895
Rate M4	37,330	0.2824	105
Rate M7	14,733	0.2824	42
Rate M5	27,984	0.2824	79
Rate M10	312	0.2824	1
Total			17,010

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

Reference: Exhibit A, Tab 1, Page 23 and Table 6

Preamble: The 2015 target NAC for each rate class was approved by the Board in Union's 2015 Rates proceeding (EB-2014-0271). The 2013 actual NAC, weather normalized using the 2015 weather normal, was used to determine the 2015 target NAC.

- a) Please provide a Schedule showing *as applicable*, for the Rate Classes in Table 6 the following for 2011-2015
- Board-approved or Forecast NAC
 - Actual NAC
 - Normalized DD North and South
 - Actual DD North and South
 - Average Normalized DD North and South
 - Average Actual DD North
- b) Please provide a 5 year graphical trend analysis of Normalized NAC for the 4 rate classes in Table 6.
- c) Please show Average DD on same chart.
- d) Please comment on the impact of Winter 2013/14 on NAC forecasts and trends.
- e) Please provide comments on whether there are/are not significant trends in Consumption and NAC for each class.

Response:

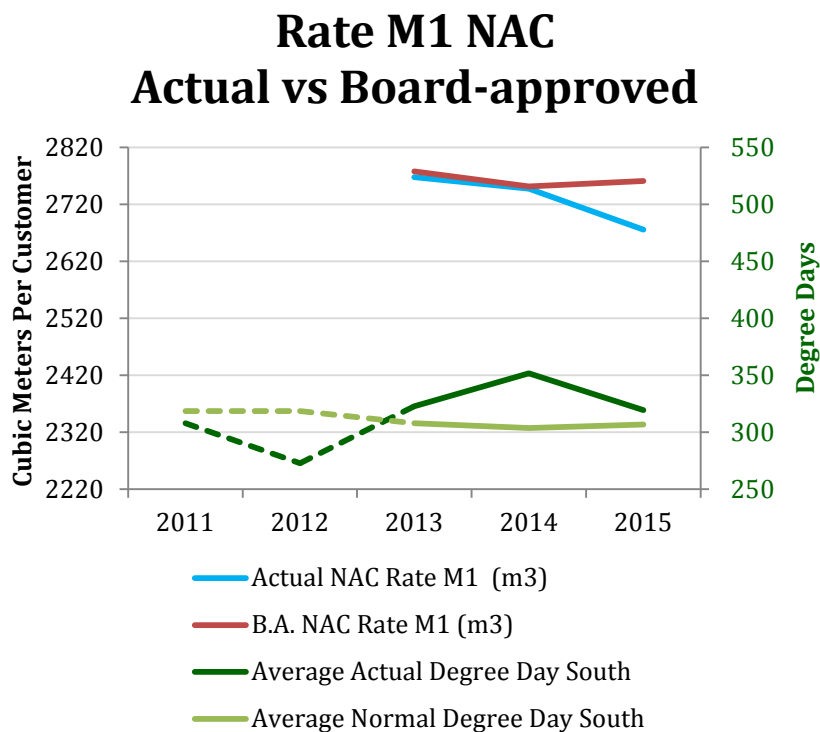
- a) Please see Attachment 1.

Board-approved data provided for years 2011 and 2012 corresponds to the previous 2008-2012 Incentive Regulation (“IR”) period. During the 2008-2012 IR the Board-approved NACs corresponded to three rate classes: the former Rate M2, Rate 01 and Rate 10. For the same period, the Weather Normal used corresponded to the Board-approved 2007 55:45 Weather Normal.

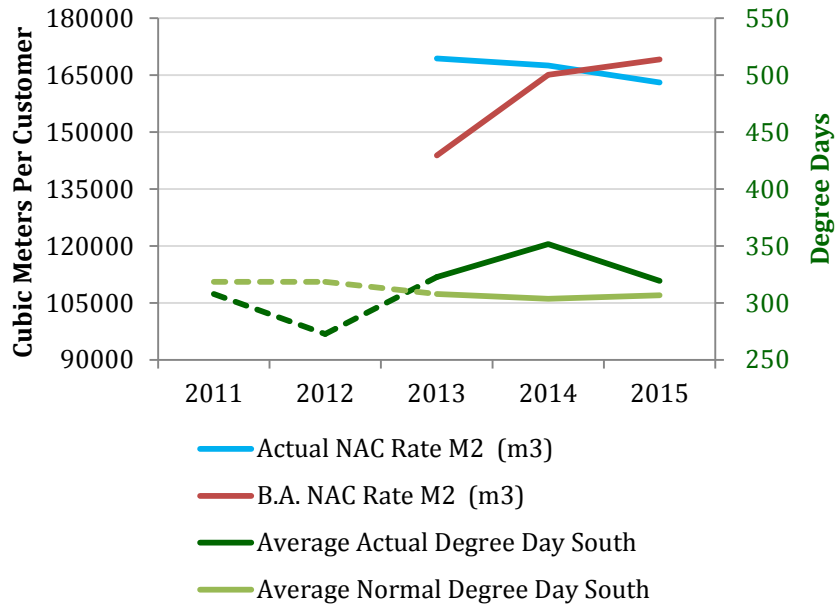
Data for year 2013 corresponds to the Board-approved Cost of Service forecasted NAC that was set as the target. Both the Forecasted NAC and the Actual 2013 NAC were weather normalized at the 2013 Board-approved 50:50 Weather Normal.

Data for years 2014 and 2015 corresponds to the current 2014-2018 IR framework. The Board-approved target for year 2014 is the Actual 2012 NAC weather normalized at the 2014 50:50 weather normal. The Board-approved target for year 2015 is the Actual 2013 NAC weather normalized at the 2015 50:50 Weather Normal.

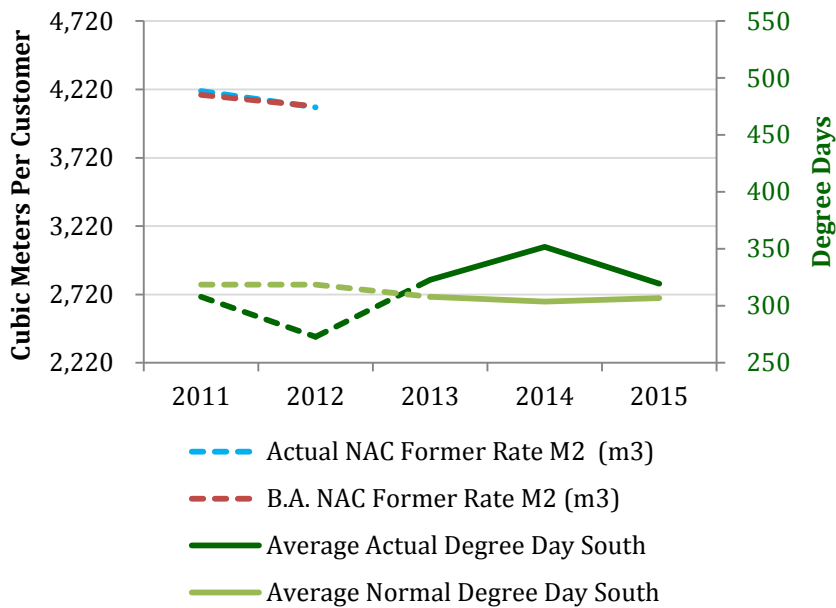
- b-c) Charts are provided below. Please note that the dotted lines for years 2011 and 2012 indicate that the data corresponds to the 2008–2012 IR frameworks.



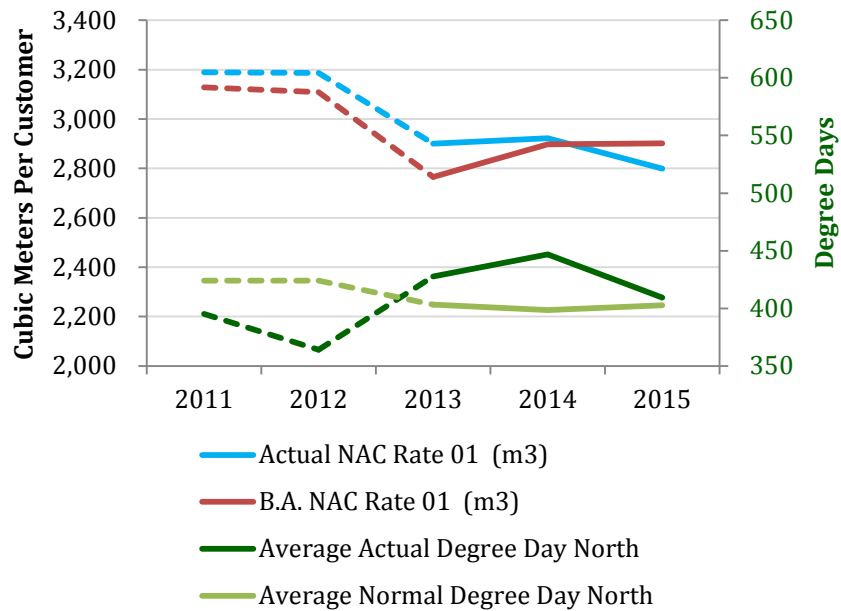
Rate M2 NAC Actual vs Board-approved



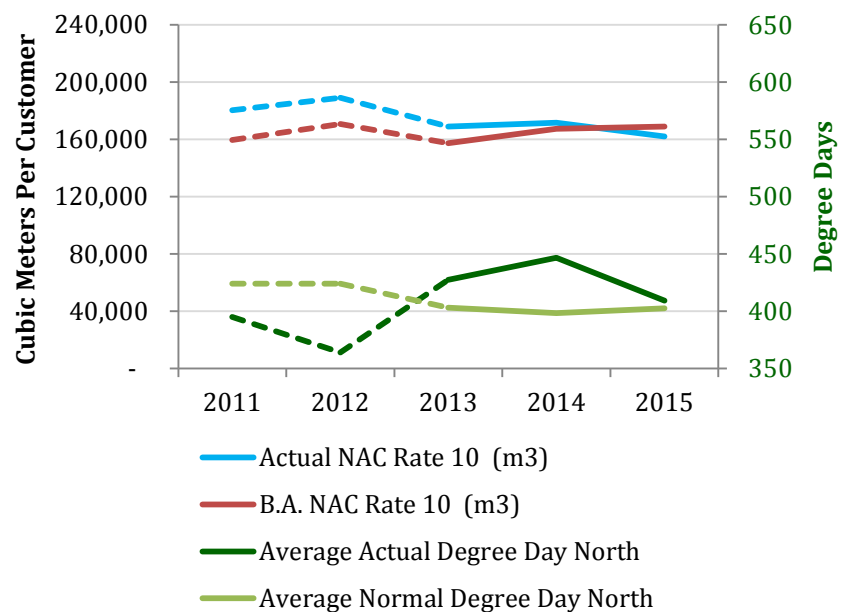
Former Rate M2 NAC Actual vs Board-approved



Rate 01 NAC Actual vs Board-approved



Rate 10 NAC Actual vs Board-approved



- d) The actual annual weather in 2013 was 5% colder in Union South and 6% colder in Union North relative to normal. Weather in 2014 was colder than normal 16% and 12% respectively. The actual NAC shown in Attachment 1 is weather normalized. Extreme cold weather like that experienced in Winter 2013/14 drives higher consumption than a normal forecasted winter. Customer behavior and comfort desires (e.g. thermostat settings) in response to the extreme change in weather are believed to be the main reason for the increase in consumption for 2014.
- e) As per the charts above, the average consumption of gas over the last three years is trending down in all rate classes. The continued presence of energy efficiency related activities especially in the residential market, (e.g. furnace replacement, improved building code related efficiency in new homes and building construction), and the impact of DSM programs and energy savings initiatives conducted by the customers also contribute to the year-over-year changes in demand. These drivers are offset by d) above.

UNION GAS LIMITED
Board-approved NAC, Actual NAC, Normal Degree Day and Actual Degree Day

Line No.	Year	Note	Actual NAC Former Rate M2 (m ³)	Board-approved NAC Former Rate M2 (m ³)	Actual NAC Rate M1 (m ³)	Board-approved NAC Rate M1 (m ³)	Actual NAC Rate M2 (m ³)	Board-approved NAC Rate M2 (m ³)	Actual NAC Rate 01 (m ³)	Board-approved NAC Rate 01 (m ³)	Actual NAC Rate 10 (m ³)	Board-approved NAC Rate 10 (m ³)	Actual Degree Day South	Actual Degree Day North	Normal Degree Day South	Normal Degree Day North	Average Actual Degree Day South	Average Actual Degree Day North	Average Normal Degree Day South	Average Normal Degree Day North
1	2011	1	4,209	4,179					3,190	3,128	180,325	159,570	3,695	4,741	3,822	5,090	308	395	318	424
2	2012	2	4,090	4,096					3,186	3,109	189,164	170,899	3,274	4,367	3,822	5,090	273	364	318	424
3	2013	3			2,768	2,778	169,422	143,867	2,900	2,765	168,975	157,381	3,875	5,131	3,695	4,838	323	428	308	403
4	2014	4			2,748	2,751	167,537	165,085	2,923	2,898	171,670	167,443	4,221	5,361	3,644	4,782	352	447	304	398
5	2015	5			2,676	2,761	163,129	169,121	2,799	2,901	162,078	169,025	3,834	4,912	3,681	4,832	320	409	307	403

Notes:

- 1 2011 Board-approved NAC is the AU target from the 2008 to 2012 IR period. Weather normal is the 55:45 2007 Normal.
- 2 2012 Board-approved NAC is the AU target from the 2008 to 2012 IR period.Weather normal is the 55:45 2007 Normal.
- 3 2013 Board-approved NAC is the Cost of Service NAC. 2013 is the Test Year for the 2014-2018 IR period.
- 4 2014 Board-approved NAC is the actual 2012 NAC weather normalized at the 2014 Weather Normal.
- 5 2015 Board-approved NAC is the actual 2013 NAC weather normalized at the 2015 Weather Normal.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

Reference: OM&A Expenses Exhibit A, Tab 2, Appendix A, Schedule 13, line 5

- a) Please provide an explanation of the nature of Contract Services.
- b) Please provide the major drivers that contribute to the significant increase in Contract Services from 2014 to 2015.
- c) Please provide the CS amount included in the Base Year OM&A.
- d) Are CS interchangeable with Salaries and Wages? Please explain.
- e) Please provide a summary of costs for each—Board-approved 2012 and actuals 2013-2015

Response:

- a) Contract Services include the costs of contracted services provided by an outside third party such as contractors for maintenance work, line locates and meter reading.
- b) The major drivers that contribute to the increase in Contract Services from 2014 to 2015 are:
 - Pipeline Integrity Program \$3.011 million
 - Line locate services \$0.870 million
 - Other \$(0.343) million
- c) Please see Attachment 1, line 5.
- d) Contract Services is not interchangeable with Salaries and Wages. Contract Services includes the costs of contracted services provided by an outside third party. Salaries and Wages include Union Employees.
- e) Since Contract Services is not interchangeable with Salaries and Wages, no summary is required.

Filed: 2014-05-02

EB-2014-014
5 Exhibit A
Tab 2
Appendix A
Schedule 13

UNION GAS LIMITED
Operating and Maintenance Expense by Cost Type
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved (a)	2013 Actual (b)
1	Salaries/Wages	192,786	201,762
2	Benefits	81,083	76,494
3	Materials	9,958	8,979
4	Employee Training	14,330	13,383
5	Contract Services	66,376	65,931
6	Consulting	8,172	8,497
7	General	18,890	21,932
8	Transportation and Maintenance	9,761	9,176
9	Company Used Gas	2,611	2,530
10	Utility Costs	4,682	4,660
11	Communications	6,380	5,730
12	Demand Side Management Programs	24,031	24,941
13	Advertising	2,386	2,283
14	Insurance	9,056	8,419
15	Donations	788	2,979
16	Financial	1,871	959
17	Lease	4,191	4,125
18	Cost Recovery from Third Parties	(2,549)	(5,600)
19	Computers	6,465	5,638
20	Regulatory Hearing & OEB Cost Assessment	4,300	3,253
21	Outbound Affiliate Services	(13,706)	(12,422)
22	Inbound Affiliate Services	11,888	10,572
23	Bad Debt	6,250	4,811
24	Other	139	-
25	Total	470,139	469,031
26	Indirect Capitalization (OH)	(51,376)	(56,328)
27	Direct Capitalization (DCC)	(21,652)	(15,428)
28	Total	397,111	397,275
29	Unregulated Storage	(12,883)	(13,283)
30	Non Utility Earnings Adjustments	(1,096)	(2,954)
31	Total Non Utility Costs	(13,979)	(16,237)
32	Total Net Utility Operating and Maintenance Expense	\$ 383,132	\$ 381,038

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

Reference: OM&A Expenses Exhibit A, Tab 2, Appendix A, Schedule 13, lines 21&22.

- a) Please provide the major drivers that contribute to the increase in Inbound Affiliate Services from 2014 to 2015.
- b) Please provide the drivers for the reduction in Outbound Affiliate services 2014-2015.
- c) Please provide an explanation how the changes in Affiliate Services affect both Utility Income and Earnings Sharing calculations for 2015.
- d) Please provide details of the Board-approved base year Affiliate Services amounts (Inbound and Outbound) along with the actual 2013, 2014 and 2015 actuals for the main categories.
- e) Please provide a breakdown (major categories) of the additional services that have been added, or reduced, after 2012 and the cost impacts of these.

Response:

- a) The major drivers that contribute to the increase in Inbound Affiliate Services from 2014 to 2015 are:
 - \$2.0 million higher procurement and supply chain services received in 2015
 - \$0.3 million higher IT services received in 2015
 - \$0.3 million other
- b) The drivers for the reduction in Outbound Affiliate Services from 2014 to 2015 are:
 - \$(1.4) million lower IT services provided in 2015
 - \$0.4 million other
- c) The increase in net Affiliate Services expense of \$3.581 million (the net of the changes in Inbound and Outbound services) decreases utility earnings subject to sharing.
- d) Please see Attachment 1 for the Board-approved affiliate service amounts, and the

2013, 2014 and 2015 actuals.

e) The major categories and the cost impacts of services that have been added or reduced after 2012 for Inbound Affiliate Services are:

- Additional Services:
 - IT services \$4.6 million
 - Procurement and supply chain services \$2.6 million
- Reduced Services:
 - Engineering \$(0.3) million
 - Sales & Marketing \$(0.2) million

Union Gas Limited
Affiliate Revenue
(\$000's)

Line No.	Functional Service	2013 Board- approved (a)	2013 Actuals (b)	2014 Actuals (c)	2015 Actuals (d)
1	Bus Devel, S&T	728	506	383	550
2	Corp Services	-	-	-	-
3	Engineering & Contruction	485	178	229	40
4	EHS	821	702	912	523
5	Ethics	-	-	-	-
6	Finance	1,951	1,881	2,434	2,942
7	Gov Relations	701	627	379	404
8	HR	2,480	2,782	2,694	2,927
9	Insurance	150	118	80	68
10	IT	4,339	3,677	7,502	6,091
11	Legal	13	5	2	1
12	Other	14	8	4	10
13	Public Affairs	-	-	-	-
14	Supply Chain	801	772	764	906
15	Tax	1,224	1,166	1,068	992
16		<u>13,706</u>	<u>12,422</u>	<u>16,451</u>	<u>15,454</u>

Union Gas Limited
Affiliate Expenses
(\$000's)

Line No.	Functional Service	2013 Board- approved	2013 Actual	2014 Actual	2015 Actual
1	Bus Devel, S&T	206	(65)	-	-
2	Corp Services	68	109	109	81
3	Engineering & Contruction	437	56	-	-
4	EHS	1,097	831	922	701
5	Ethics	230	376	280	424
6	Finance	1,286	1,349	1,843	2,158
7	Gov Relations	-	-	-	-
8	HR	2,207	1,588	1,825	1,887
9	Insurance	505	97	127	310
10	IT	1,729	2,759	7,690	7,945
11	Legal	156	73	155	204
12	Other	315	-	-	-
13	Pub Affairs	5	3	3	20
14	Supply Chain	752	889	1,768	3,218
15	Tax	450	455	435	475
16	Sub Total	9,443	8,520	15,157	17,423
17	Depreciation	2,445	2,052	2,208	2,526
18	Total	11,888	10,572	17,365	19,949

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

Reference: Cost of Capital Exhibit A, Tab 2, Appendix A, Schedule 4, line 2

- a) Please explain the increase in both the amount and Cost Rate for Unfunded short term debt.
 - b) Please describe what are the effects on 2015 Cost of Capital and how this flows into the Requested Return, Revenue Sufficiency and into the 2015 Earnings Sharing calculation.
-

Response:

- a) For clarification, the amount and cost rate for unfunded short-term debt have decreased, not increased.

The decrease in the amount is related to the financing of items that are not included in rate base, primarily construction work in process (“CWIP”). The short-term debt amount has been calculated using the methodology evaluated and approved by the Board in EB-2011-0210.

The cost rate is the actual annual average Bankers’ acceptance (1 month) rate as published by the Bank of Canada, which has decreased.

- b) The decrease in the short-term debt amount has the effect of lowering the 2015 Cost of Capital. This flows through as a reduction to the Requested Return, an increase to Revenue Sufficiency, and an increase to Earnings Subject to Sharing in the Earnings Sharing calculation.

While the short-term debt amount is in a negative balance, the decrease in the cost rate has the effect of increasing the Cost of Capital. This flows through as an increase to the Requested Return, a decrease to Revenue Sufficiency, and a decrease to Earnings Subject to Sharing in the Earnings Sharing calculation.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: Exhibit A, Tab 1, Appendix A, Schedule 2.

Preamble: In setting rates for 2015, the Board approved a forecast of optimization revenue of \$14.918 million. 90% of that amount, or \$13.426 million, was credited to ratepayers in the Board-approved 2015 rates. On an actual basis, consistent with the method approved in its EB-2011-0210 Decision and Rate Order, Union credited \$15.565 million in rates to ratepayers during 2015, \$2.139 million greater than the Board-approved amount of \$13.426 million. The credit is due to Union's actual sales service volumes exceeding the forecast sales service volumes in rates.

a) Please provide a schedule similar to EB-2013-0365 Rate Order Working Papers Schedule 14, showing the calculations of the Gas Supply Optimization Margin Included in 2015 Gas Supply Transportation Rates.

b) Please provide comments/notes regarding drivers of changes relative to prior years.

Response:

a) Please see Attachment 1 for the 2015 Rates (EB-2014-0271), Rate Order, Working Paper Schedule 14.

b) There was no change to the amount of gas supply optimization margin included in 2015 rates. The Board-approved gas supply optimization margin in 2013, 2014 and 2015 rates is \$13.426 million.

UNION GAS LIMITED
Summary of Gas Supply Optimization Margin Included In 2015 Gas Supply Transportation Rates

Line No.	Particulars (\$000's)	Total Revenue (1) (a)	Allocated Cost (b)	Total Margin (c) = (a - b)	Shareholder Portion of (d) = (c) * 10%	Margin Included in 2013 Gas Supply Transportation Rates (e) = (c - d)	Margin Included in 2014 Gas Supply Transportation Rates (f)	Margin Included in 2015 Gas Supply Transportation Rates (g)	Variance (h) = (g - e)
	<u>Exchanges (2)</u>								
1	Base Exchanges	9,118	-	9,118	912	8,206	8,206	8,206	-
2	FT-RAM Related Exchanges	5,800	-	5,800	580	5,220	5,220	5,220	-
3	Total Exchanges Revenue	<u>14,918</u>	<u>-</u>	<u>14,918</u>	<u>1,492</u>	<u>13,426</u>	<u>13,426</u>	<u>13,426</u>	<u>-</u>

Notes:

- (1) EB-2011-0210, Rate Order, Working Papers, Schedule 14, Page 11, Line 18, column (g).
(2) EB-2011-0210, Board Decision, page 40.

UNION GAS LIMITED
2015 Gas Supply Optimization Margin - Allocation of Ratepayer Portion and Calculation of Unit Rates

Line No.	Rate Class	Union North FT Demand Allocation Units TRANSALLO (\$000's) (a)	Union North Margin (\$000's) (b)	Union South Landed Supply Allocation Units S_SUPPLYVOL (10³m³) (c)	Union South Margin (\$000's) (d)	Total Margin (\$000's) (1) (e) = (b + d)	Billing Units (10³m³) (2) (f)	2015 Unit Rate (cents/m³) (g) = (e / f)
1	Rate 01	65,876	(3,920)			(3,920)	926,963	(0.4229)
2	Rate 10	22,548	(1,342)			(1,342)	343,530	(0.3906)
3	Rate 20	8,016	(477)			(477) (3)		
4	Rate 100	-	-			-	-	-
5	Rate 25	1,961	(117)			(117)	42,913	(0.2720)
6	Total Union North	<u>98,400</u>	<u>(5,856)</u>			<u>(5,856)</u>		
7	Rate M1			2,271,443	(6,415)	(6,415)	2,271,443	(0.2824)
8	Rate M2			378,137	(1,068)	(1,068)	378,137	(0.2824)
9	Rate M4			16,855	(48)	(48)	16,855	(0.2824)
10	Rate M5 - Firm			226	(1)	(1)	226	(0.2824)
11	Rate M5 - Int			13,906	(39)	(39)	13,906	(0.2824)
12	Rate M10			48	(0)	(0)	48	(0.2824)
13	Total Union South			<u>2,680,616</u>	<u>(7,571)</u>	<u>(7,571)</u>	<u>2,680,616</u>	
14	Total Exchanges Revenue					<u>(13,426)</u>		

Notes:

- (1) EB-2011-0210, Rate Order, Working Papers, Schedule 43, Line 3, column (e).
(2) Union North billing units per EB-2014-0271, Rate Order, Working Papers, Schedule 4, Column (t).
Union South billing units are 2013 Board-approved Sales volumes per EB-2011-0210.
(3) Rate 20 margin with be refunded 60% in the Gas Supply Demand Charge and 40% in the Commodity Transportation 1 Charge.
The Rate 20 unit rates are calculated below:

Margin Allocated to Gas Supply Demand Charge (\$000's)	(286)
Total Gas Supply Demand Billing Units (10³m³)	<u>6,873</u>
Unit Rate (cents/m³)	<u>(4.1642)</u>
Margin Allocated to Commodity Transportation Charge 1 (\$000's)	(191)
Total Commodity Transportation 1 Billing Units (10³m³)	<u>73,456</u>
Unit Rate (cents/m³)	<u>(0.2597)</u>

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: Exhibit A, Tab 2, p. 9 and
Exhibit A, Tab 2, Appendix D, Schedule 1

- a) For the Billing and SQRs please provide an updated consolidated table similar to EB-2015-0010 Exhibit B.Energy Probe.11 Attachment 1, showing 5 year historic performance 2011-2015 and the 5 year average and Board approved "standard".
 - b) Discuss any trends and remedial actions, especially for 2015.
-

Response:

- a) Please see Attachment 1.
- b) There are no discernable trends in the 5-year historic performance or issues with the SQR levels in 2015. Union has met or exceeded the SQR requirements in all categories for the last five years with the exception of the Call Answering Service Level in 2014. Therefore, no remedial actions are necessary.

SQR Five Year Performance

	2011	2012	2013	2014	2015	5 Year Average	OEB-approved Standards
Call Answering Service Level (CASL) (%)	79.9	81.4	78.4	73.5	79.1	78.46	Yearly performance 75%; minimum monthly standard 40%
Abandon Rate (AR) (%)	4.3	3.5	3.8	4.6	4.0	4.04	Yearly performance shall not exceed 10%
Meter Reading Performance Measurement (MRPM) (%)	0.1	0.1	0.2	0.4	0.2	0.2	Yearly measurement not to exceed 0.5%
Number of Days to Provide a Written Response (NDPAWR) (%)	100	100	100	100	100	100	Minimum standard is 80% of customers have written responses within 10 days of distributor receiving complaint
Billing Performance - Total Number of Manual Checks Done When Meter Reads Show Excessively High Usage (as per QAP Criteria)	85,366	76,230	95,145	117,263	127,232	100,247	None specified
Billing Performance - Total Number of Manual Checks Done When Meter Reads Show Excessively Low Usage (as per QAP Criteria)	16,223	11,971	15,923	7,552	5,586	11,451	None specified
Percentage of Emergency Calls Responded Within One Hour (ECRWOH) (%)	98.3	98.1	97.9	97.8	98.6	98.1	90% of customers have received responses within 60 minutes of their calling and reaching a live person. Calculated on an annual basis
Number Of Days to Reconnect A Customer (NDTRAC) (%)	93.5	91.7	92.2	91.9	90.1	91.9	85% of customers are reconnected within 2 business days of bringing their accounts into good standing. Tracked on a monthly basis
Appointments Met Within the Designated Time Period (AMWDTP) (%)	98.2	98.8	97.8	97.7	98.8	98.3	Minimum performance is 85% averaged over a year
Time To Reschedule a Missed Appointment (TRMA) (%)	99.8	99.9	99.9	99.9	99.8	99.9	Minimum performance shall be 100% who will receive a call from the utility offering to reschedule within 2 hours of end of original appointment

Note: As per QAP criteria, Union performs manual checks for accuracy when meter reads show excessively high or excessively low usage.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: Exhibit A, Tab 2, Page 2 and
Exhibit A, Tab 2, Appendix B, Schedule 1, column (d), line 28

Preamble: Actual ROE is determined using utility earnings calculated as described above divided by deemed common equity at 36% of actual utility rate base. The actual 2015 ROE is 9.89%.

- a) What is Union's normalized actual return on equity for 2015?
 - b) What is the Normalized ROE *excluding adjustments*?
 - c) What is the actual X factor in 2015 compared to 0.76?
-

Response:

- a) Union's weather normalized actual return on equity for 2015 is 9.46%. This can be found at Exhibit A, Tab 5, Slide 7. Please see Attachment 1.
- b) Union's weather normalized return on equity excluding any adjustments for 2015 is 9.66%. Please see Attachment 2.
- c) Union's 2015 Board-approved X factor was 1.23%, which represents 60% of the inflation factor of 2.05%. The resulting price cap index used in setting 2015 rates was 0.82% (2.05% - 1.23%).

In order for the 2015 weather normalized return on equity to equal 8.93%, the X factor would have had to be 2.45%, or 119% of the inflation factor.

UNION GAS LIMITED
Weather Normalized Earnings Sharing Calculation
Calendar Year Ending December 31, 2015

Line No.	Particulars (\$000s)	2015 (a)	Unregulated Storage (b)	Adjustments (c)	2015 Utility (d)=(a)-(b)+(c)
	Operating Revenues				
1	Gas Sales	1,674,769	-	(15,565) i	1,659,203
2	Transportation	155,775	(469)	-	156,244
3	Storage	83,162	75,794	-	7,368
4	Other	25,819	-	(5,917) ii	19,902
5		<u>1,939,524</u>	<u>75,325</u>	<u>(21,483)</u>	<u>1,842,717</u>
	Operating Expenses				
6	Cost of gas	874,628	2,221	(15,565) i	856,842
7	Operating and maintenance expenses	399,070	14,771	(1,315) iii	382,984
8	Depreciation	223,796	11,577	-	212,219
9	Other financing	-	-	820 iv	820
10	Property and other taxes	<u>67,468</u>	<u>1,620</u>	<u>-</u>	<u>65,848</u>
11		<u>1,564,962</u>	<u>30,189</u>	<u>(16,060)</u>	<u>1,518,713</u>
	Other				
12	Gain / (Loss) on sale of assets	(4)	(4)	-	(0)
13	Other / Huron Tipperary	(726)	(726)	-	-
14	Gain / (Loss) on foreign exchange	(1,614)	(18)	1,154 v	(442)
	Remove impact of weather			<u>(8,980)</u>	<u>(8,980)</u>
15		<u>(2,344)</u>	<u>(748)</u>	<u>(7,826)</u>	<u>(9,422)</u>
16	Earnings before interest and taxes	<u>372,219</u>	<u>44,388</u>	<u>(13,248)</u>	314,583
17	Income taxes				<u>13,304</u>
18	Total utility income subject to earnings sharing				<u>301,279</u>
	Less debt and preference share return components				
19	Long-term debt				154,972
20	Unfunded short-term debt				(1,206)
21	Preferred dividend requirements				<u>2,659</u>
22					<u>156,425</u>
	Less shareholder portions of:				
23	Net short-term storage revenue (after tax)				330
24	Net optimization activity (after tax)				<u>569</u>
25					<u>899</u>
26	Earnings subject to sharing				<u>143,955</u>
27	Common equity				1,522,222
28	Return on common equity (line 26 / line 27)				9.46%
29	Benchmark return on common equity + 100 basis points				9.93%
30	50% earnings sharing % (line 28 - line 29, maximum 1%)				0.00%
31	90% earnings sharing % (if line 30=1%, then line 28 - line 29 - line 30)				0.00%
32	50% earnings sharing \$ (line 27 x line 30 x 50%)				-
33	90% earnings sharing \$ (line 27 x line 31 x 90%)				<u>-</u>
34	Total earnings sharing \$ (line 32 + line 33)				<u>-</u>
35	Pre-tax earnings sharing (line 34 / (1 minus tax rate))				<u>-</u>

Notes:

i Reclassification of optimization revenue as cost of gas

ii Demand-side management incentive

iii Donations (1,666)
CDM program 351
(1,315)

iv Facility fees and customer deposit interest

v Foreign exchange gain on bank balances

UNION GAS LIMITED
Weather Normalized Earnings Sharing Calculation Excluding Adjustments
Calendar Year Ending December 31, 2015

Line No.	Particulars (\$000s)	2015 (a)	Unregulated Storage (b)	Adjustments (c)	2015 Utility (d)=(a)-(b)+(c)
	Operating Revenues				
1	Gas Sales	1,674,769	-	-	1,674,769
2	Transportation	155,775	(469)	-	156,244
3	Storage	83,162	75,794	-	7,368
4	Other	25,819	-	-	25,819
5		<u>1,939,524</u>	<u>75,325</u>	<u>-</u>	<u>1,864,200</u>
	Operating Expenses				
6	Cost of gas	874,628	2,221	-	872,407
7	Operating and maintenance expenses	399,070	14,771	-	384,299
8	Depreciation	223,796	11,577	-	212,219
9	Other financing	-	-	-	-
10	Property and other taxes	67,468	1,620	-	65,848
11		<u>1,564,962</u>	<u>30,189</u>	<u>-</u>	<u>1,534,773</u>
	Other				
12	Gain / (Loss) on sale of assets	(4)	(4)	-	(0)
13	Other / Huron Tipperary	(726)	(726)	-	-
14	Gain / (Loss) on foreign exchange	(1,614)	(18)	-	(1,596)
	Remove impact of weather			(8,980)	(8,980)
15		<u>(2,344)</u>	<u>(748)</u>	<u>(8,980)</u>	<u>(10,575)</u>
16	Earnings before interest and taxes	<u>372,219</u>	<u>44,388</u>	<u>(8,980)</u>	318,852
17	Income taxes				<u>14,436</u>
18	Total utility income subject to earnings sharing				<u>304,416</u>
	Less debt and preference share return components				
19	Long-term debt				154,972
20	Unfunded short-term debt				(1,206)
21	Preferred dividend requirements				2,659
22					<u>156,425</u>
	Less shareholder portions of:				
23	Net short-term storage revenue (after tax)				330
24	Net optimization activity (after tax)				<u>569</u>
25					<u>899</u>
26	Earnings subject to sharing				<u>147,092</u>
27	Common equity				1,522,222
28	Return on common equity (line 26 / line 27)				9.66%
29	Benchmark return on common equity + 100 basis points				9.93%
30	50% earnings sharing % (line 28 - line 29, maximum 1%)				0.00%
31	90% earnings sharing % (if line 30=1%, then line 28 - line 29 - line 30)				0.00%
32	50% earnings sharing \$ (line 27 x line 30 x 50%)				-
33	90% earnings sharing \$ (line 27 x line 31 x 90%)				<u>-</u>
34	Total earnings sharing \$ (line 32 + line 33)				<u>-</u>
35	Pre-tax earnings sharing (line 34 / (1 minus tax rate))				<u>-</u>

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation (“Energy Probe”)

References: Exhibit A, Tab 2, Page 6 Adjustments and
Exhibit A, Tab 2, Appendix A, Schedule 3

Preamble: Facility fees, customer deposit interest and foreign exchange on bank balances are recorded in the company's corporate results as interest expense. Since these items should be included in utility earnings, and are not part of the utility interest calculation they need to be adjusted. As a result, facility fees and customer deposit interest of \$0.820 million have been added to operating expenses and foreign exchange gain on bank balances of \$1.154 million has been included in other expenses to arrive at utility earnings.

- a) Please provide the 2015 Working Papers and explanatory notes for customer deposits and foreign exchange adjustments.
- b) Please provide historical data 2013-2015 with explanatory notes on main drivers (customer deposits and foreign exchange).

Response:

- a) Customer deposit interest is the interest expense incurred by Union while holding customer deposits. This interest expense is not included in the debt return components (Exhibit A, Tab 2, Appendix A, Schedule 4) therefore it is included in utility income by way of an adjustment.

Foreign exchange on bank balances is included in interest expense and thus excluded from Earnings before interest and taxes (see Exhibit A, Tab 2, Appendix B, Schedule 1, line 16). An adjustment is required to ensure that foreign exchange on bank balances is included in earnings subject to sharing.

As the calculations of customer deposit interest and foreign exchange on bank balances are automated within Union's financial system, no working papers are available.

b) Please see the table below:

<u>Line No.</u>	<u>Particulars (\$000's)</u>	<u>2013 Actual</u>	<u>2014 Actual</u>	<u>2015 Actual</u>
1	Customer Deposit Interest	(17)	54	55
2	Foreign Exchange on Bank Balances	(374)	(585)	(1,154)

Customer deposit interest was consistent from 2013-2015 aside from a 2013 correction of a prior year error which caused a credit balance in 2013.

The foreign exchange gain on bank balances increased from 2013 through 2015 mainly due to fluctuations in foreign exchange rates.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 1, P.4-6 and EB-2015-0035 Tab 1, PP.7-12

Preamble: We are specifically interested in understanding the UDC costs and allocations for Union South. On page 12 of the QRAM evidentiary reference above, Union states:

"Union will bring forward a proposal for disposition of costs related to the spot gas purchased for Union South bundled DP customers as part of its 2014 annual non-commodity deferral account disposition application. At that time, final BGA balances for March 31, 2015 will be available. If the variance from the planned BGA balance in aggregate for all bundled DP customers is different than 1.3 PJ on an actual basis, Union will revise the amount to be recovered from Union South bundled DP customers, to reflect actual activity. Accordingly, the deferral credit of \$2.13million has been excluded from deferral account balances filed in Tab 1 to be disposed of in this QRAM application"

Please attach pages 7-12 of the above referenced QRAM application.

- a) For the months of January, February and March 2015:
 - i) Please provide the forecasted and actual DP BGA balances
 - ii) Please provide the forecasted and actual DP consumptions
 - iii) Please provide the forecasted and actual system gas consumptions
 - iv) Please provide the forecasted and actual heating degree days
 - v) Please provide any other summary data that Union would have relied upon at the time of incremental purchases that informed the decision to purchase
- b) Based upon the above information and Union's interpretation of the EB-2014-0145 decision on these matters, please specifically describe Union proposed allocation and disposition of UDC costs for Union South.

Response:

- a) Please see Attachment 1 for EB-2015-0035, Tab 1 pp. 7-12.

- i) The forecast and actual Union South DP BGA balances for January, February and March 2015 per contract DP Status Reports were:

UNION GAS LIMITED
Forecast and Actual DP BGA Balances

Line No.	Particulars (PJ)	Jan-15	Feb-15	Mar-15
1	Forecast	(2.2)	(6.1)	(8.6)
2	Actual	(1.9)	(5.4)	(9.4)

- ii) The forecast and actual Union South DP consumption for January, February and March 2015 per contract DP Status Reports were:

UNION GAS LIMITED
Forecast and Actual System DP Consumption

Line No.	Particulars (PJ)	Jan-15	Feb-15	Mar-15
1	Forecast	10.0	9.4	8.7
2	Actual	10.1	10.7	10.4

- iii) The forecast per the annual forecast and actual system gas consumption for January, February and March 2015 were:

UNION GAS LIMITED
Forecast and Actual System Gas Consumption

Line No.	Particulars (PJ)	Jan-15	Feb-15	Mar-15
1	Forecast	29.4	25.6	22.1
2	Actual	33.2	33.9	24.4

- iv) The forecast and actual Heating Degree Days (“HDD”) for January, February and March 2015 were:

UNION GAS LIMITED
Forecast and Actual Heating Degree Days

Line No.	HDD	Jan-15	Feb-15	Mar-15
1	Forecast	740	645	555
2	Actual	837	890	640

v) As indicated at EB-2015-0035, p.6, as of March 3, 2015, Union purchased a total of 20.2 PJ of spot gas landing at Dawn up to the end of March. This gas was purchased:

1. To meet incremental winter requirements for actual and projected demand variances for Union South sales service customers and Union North sales service and bundled direct purchase ("DP") customers;
2. For forecast weather variances relative to the February 28 inventory checkpoint and forecast March weather variances for Union South bundled DP customers;
3. To manage unaccounted for gas variances; and,
4. For incremental Rate 25 sales service activity.

b) The evidence and decisions referenced relate to the disposition and allocation of costs related to spot purchases made by Union for Union South DP customer load balancing. The disposition of spot costs for Winter 2014/2015 for Union South Bundled DP customers was part of the EB-2015-0010 Settlement Agreement, dated July 27, 2015. Spot gas is purchased and the costs are recovered based on variances attributable to sales service and DP customers, as noted above, and has no relevance to the allocation methodology for UDC costs.

Union South Bundled DP customers are not allocated any UDC costs.

Please see the response at Exhibit B.Staff.1 and Exhibit B.Staff.7.

1 The timing of Union's spot purchases and the average cost is summarized in Table 1.

Table 1
Winter 2014/15 Spot Purchases (as of March 3, 2014)

Line No.	Date Purchased	Total Landed Volume (PJ)	Estimated Cdn \$/GJ	Total Cost (\$ million)	Delivery Date
1	December 12, 2014	1.0	\$5.12	\$5.1	January
2	December 16, 2014	1.0	\$5.12	\$5.1	January
3	January 16, 2015	2.0	\$3.97	\$7.9	February
4	January 23, 2015	1.0	\$3.84	\$3.8	February
5	January 26, 2015	1.0	\$3.75	\$3.8	February
6	January 29, 2015	1.0	\$3.50	\$3.5	February
7	February 6, 2015	1.0	\$3.44	\$3.4	February 7-28
8	February 6, 2015	1.0	\$3.41	\$3.4	March
9	February 11, 2015	1.2	\$4.19	\$4.9	February 12-28
10	February 11, 2015	4.8	\$4.03	\$19.5	March
11	February 13, 2015	1.5	\$3.89	\$5.8	March
12	February 17, 2015	2.7	\$4.10	\$11.1	March
13	March 3, 2015	1.0	\$4.95	\$5.0	March 14-31
14	Total	20.2	\$4.08	\$82.3	

2

3 An overview of Union's spot gas purchases and the various factors impacting Union's decisions

4 are described in more detail below. Specific detail around each purchase is found in Appendix

5 A.

6

7 Spot Gas Purchases – Overview

8 As detailed in Table 1 above, Union purchased a total of 20.2 PJ of spot gas landing at Dawn,

9 purchased as of March 3, 2015 for delivery through the end of March 2015. Table 2 provides a

10 breakdown of the quantities purchased for each group of customers.

Table 2

Line No.	Spot Gas Purchase Breakdown by Customer Group	PJ
1	Union South Sales Service Customers	16.9
2	Union North Sales Service and Bundled DP Customers (net of planned UDC filled)	0.5
3	Union South Bundled DP Customers	1.3
4	Unaccounted For Gas Variances	0.8
5	Union North Rate 25 Variance	0.7
6	TOTAL	<u>20.2</u>

Union South and North Spot Gas Purchases

As shown in Table 2, lines 1 and 2, of the total spot gas purchased, 17.4 PJ was required to meet actual demands above forecast for the period November 1, 2014 to January 31, 2015 and projected demand variances above forecast for the February 1 to March 31, 2015 period for Union South sales service customers and Union North sales service and bundled DP customers. In addition, Union purchased 1.3 PJ of spot gas for Union South bundled DP customers to manage weather variances relative to the February 28 inventory checkpoint (for variances after the checkpoint volumes were established) and March weather and consumption variances.

Union continued its past practices of frequently monitoring and layering in spot gas purchases so that it was predominantly buying the gas required proactively in the forward market rather than in the day market. Given the greater price stability at Dawn this winter, Union was less concerned about the intra month cash market and was able to buy some supply in the intra month cash market at reasonable prices. Union's approach to purchasing incremental gas supplies over the winter period is further described starting on page 17. The total deferral impact of the spot purchases of 18.7 PJ for the sales service and bundled DP customers (as compared to the Ontario

Landed Reference Price of \$5.716) is a credit of \$30.6 million.

Union South Sales Service Customers

Union purchased 16.9 PJ (Table 2, line 1) of spot gas to meet actual demands above forecast for the period November 1, 2014 to January 31, 2015 and projected variances above forecast for the February 1, 2015 to March 31, 2015 period for Union South sales service customers. The primary drivers for the spot gas requirement for Union South sales service customers are provided in Table 3.

Table 3
Union South Sales Service Customer Variances

Line No.	Variance Driver (PJ)	Actual Variances (November, 2014 to January, 2015)	Projected Variances (February and March, 2015)	Total Variances
1	Weather	4.4	12.8	17.2
2	General Service Use and RTS Variances	1.0	-	1.0
3	Contract Market Use Variances	(0.4)	-	(0.4)
4	Variance in Opening Storage Position	(0.8)	-	(0.8)
5	Other	(0.1)	-	(0.1)
6		4.1	12.8	16.9

In addition to the 17.2 PJ required due to colder than normal weather, Union experienced other variances that influenced the amount of gas purchased. These included higher general service use and return to sales service of 1.0 PJ, offset, in part, by lower demand by sales service contract customers of 0.4 PJ.

The variance in the opening storage position of 0.8 PJ was a result of actual variances realized in

1 October 2014. In the summer/fall, Union purchased supply to meet the targeted sales service
2 inventory level for November 1, 2014 based on forecast activity, however, actual activity in
3 October resulted in Union being 0.8 PJ long at November 1, 2014.

4
5 The difference between the January 1, 2015 Ontario Landed Reference Price of \$5.716/GJ and
6 the actual average cost of \$4.08/GJ of incremental gas purchased results in a credit of \$27.6
7 million and is recorded as a credit in the South Purchased Gas Variance Account (SPGVA
8 Deferral No. 179-106) as the incremental purchases are attributable to Union South sales service
9 customers only.

10 11 **Union South Bundled DP Customers**

12 For Union South, Union retains load balancing obligations for weather variances relative to the
13 February 28 inventory checkpoint (for variances after the checkpoint volumes were established)
14 and March weather and consumption variances for bundled DP customers. Consistent with the
15 winter 2013/14, Union purchased additional gas in order for Union to fulfil its load balancing
16 obligations for this group of customers. Consequently, Union proactively purchased 1.3 PJ of spot
17 gas for delivery in March based on current forecasted weather variances for Union South
18 bundled DP customers. The deferral impact is a credit of \$2.13 million. This amount reflects the
19 price variance between actual average spot purchase costs and Union's Ontario Landed
20 Reference Price (i.e. Weighted Average Cost of Gas ("WACOG")).

1 A cost of \$0.64 million (calculated as the winter/summer differential of \$0.49/GJ multiplied by
2 1.3 PJ) would be collected from Union South bundled DP customers for load balancing costs.
3 As indicated in the Board's Decision in EB-2014-0145¹, applying the winter/summer price
4 differential to the cost of the gas purchased ensures that sales service customers do not bear the
5 costs related to relatively more expensive incremental winter purchases.

6
7 Consequently, a credit of \$2.77 million would be disposed of to Union South sales service
8 customers. The credit attributable to Union South sales service customers is the result of the
9 credit related to the spot gas purchase of \$2.13 million plus \$0.64 million to be recovered as load
10 balancing costs from Union South bundled DP customers.

11
12 While Union South bundled DP customers do not have a contractual obligation to meet the
13 planned BGA balance as of March 31, 2015, Union advised South bundled DP customers on
14 February 23, 2015 that actual weather had been significantly colder than what had been forecast
15 for purposes of determining the February checkpoint and was also forecast to be significantly
16 colder than normal through March. Union also indicated that if a customer was concerned that
17 they might see a deferral account disposition related to incremental consumption subsequent to
18 the February checkpoint similar to last year, they could consider options for additional gas
19 deliveries in the remainder of February and in the month of March so that their actual March 31
20 BGA balance was not less than planned.

21

¹ EB-2014-0145, Decision and Order, October 30, 2014, page 4.

1 While Union continues to evaluate the need to purchase gas to manage incremental consumption
2 requirements for Union South bundled DP customers through the remainder of the winter, actual
3 activity at the end of February and early March suggests that the variance between actual
4 aggregate BGA balances at the end of March relative to the planned BGA balance will be less
5 than 1.3 PJ.

6
7 Union will bring forward a proposal for disposition of costs related to the spot gas purchased for
8 Union South bundled DP customers as part of its 2014 annual non-commodity deferral account
9 disposition application. At that time, final BGA balances for March 31, 2015 will be available.
10 If the variance from the planned BGA balance in aggregate for all bundled DP customers is
11 different than 1.3 PJ on an actual basis, Union will revise the amount to be recovered from Union
12 South bundled DP customers, to reflect actual activity. Accordingly, the deferral credit of \$2.13
13 million has been excluded from deferral account balances filed in Tab 1 to be disposed of in this
14 QRAM application.

15
16 **Union North Sales Service and Bundled DP Customers**

17 Union purchased 0.5 PJ of spot gas to meet actual demands above forecast for the period
18 November 1, 2014 to January 31, 2015 and projected demand variances above forecast for the
19 February 1 to March 31, 2015 period for Union North sales service and bundled DP customers.
20 In addition to the spot gas purchased, Union filled 5.6 PJ of planned UDC for Union North to
21 meet actual demands above forecast for the period November 1 to March 31. Any variance
22 related to the gas purchased to fill 5.6 PJ of planned UDC is captured in Union's North

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 1, P.11, lines 3-6

Preamble: The evidence states: "*The storage requirement for the general service market was calculated using the Board-approved aggregate excess methodology and the storage requirement for the contract market was calculated using either the Board-approved aggregate excess methodology or the 15 X obligated Daily Contracted Quantity ("DCQ") storage methodology.*"

- a) Please clarify in the contract market's storage requirement is calculated consistent with the methodologies used in the actual contracts. If not, how is the methodology chosen for this market?

Response:

- a) Yes, the contract market's storage requirement is calculated consistent with those used in the actual contracts.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 1, PP.22-23

Please fill in the inserted table for each of the M1, M2, Rate 1 and Rate 10 rate classes.

	2013	2014	2015
ACTUAL CONSUMPTION (m3)			
ACTUAL HDD			
FORECASTED HDD FOR THE YEAR			
YEARS USED TO FORECAST HDD (30yr.)			
YEARS USED TO FORECAST HDD (20yr.)			
FORECASTED NAC (m3)			

To be clear, the Years Used rows refers to the range of years included in the calculation of the 30 year and 20 year HDD determinations for that specific years' forecasted NAC.

- Please provide the heating degree data used to forecast the HDD in a table and in Excel format.
- Please provide the resulting linear equation for the 20 yr. calculation for each years' trend contribution to the HDD value.
- Please show a sample calculation using the M1 rate class for 2015 starting from source data through the resulting difference between actual and HDD.

Response:

Please see Attachment 1.

- Please see Attachment 2.
- Please see Attachment 3.
- For purposes of the response, Union assumes the question refers to the difference between actual HDD and forecasted HDD factored into the Rate M1 NAC for 2015. The weather

forecast for 2015 is based on the Board-approved 50:50 methodology. The simple 30-year average for the period 1994 – 2013 resulted in 3,788.6 HDD. From the 20-year linear equation, the forecasted HDD for year 2015 is as follows: $[31,758.6728 - 13.9876 * (2015) = 3,573.7 \text{ HDD}]$ Please see Attachment 3. Applying the 50:50 ratio, the final forecasted HDD for Southern Ontario was: $3,788.6 * 50\% + 3,573.7 * 50\% = 3,681.1 \text{ HDD}$.

The difference between the 2015 actual HDD and the forecasted HDD is: $3,834.2 \text{ HDD} - 3,681.1 \text{ HDD} = 153.11 \text{ HDD}$.

UNION GAS LIMITED
Consumption and Heating Degree Day
Rate Class M1

Line No.	Particulars	Note	2013	2014	2015
1	Actual Consumption (m ³ /customer)		2,869	3,114	2,793
2	Actual HDD		3,875	4,221	3,834
3					
4	Forecasted HDD		3,695	3,644	3,681
5	Years used to Forecast HDD (30 yr.)	1982 to 2011	1983 to 2012	1984 to 2013	
6	Years used to Forecast HDD (20 yr.)	1992 to 2011	1993 to 2012	1994 to 2013	
7	Forecasted NAC (m ³ per customer)	1	2,778	2,751	2,761

Notes:

1 Forecasted NAC is the Target NAC

UNION GAS LIMITED
Consumption and Heating Degree Day
Rate Class 01

Line No.	Particulars	Note	2013	2014	2015
1	Actual Consumption (m ³ /customer)		3,049	3,216	2,885
2	Actual HDD		5,131	5,361	4,912
3					
4	Forecasted HDD		4,838	4,782	4,832
5	Years used to Forecast HDD (30 yr.)	1982 to 2011	1983 to 2012	1984 to 2013	
6	Years used to Forecast HDD (20 yr.)	1992 to 2011	1993 to 2012	1994 to 2013	
7	Forecasted NAC (m ³ per customer)	1	2,765	2,898	2,901

Notes:

1 Forecasted NAC is the Target NAC

UNION GAS LIMITED
Consumption and Heating Degree Day
Rate Class M2

Line No.	Particulars	Note	2013	2014	2015
1	Actual Consumption (m ³ /customer)		174,895	185,199	168,399
2	Actual HDD		3,875	4,221	3,834
3					
4	Forecasted HDD		3,695	3,644	3,681
5	Years used to Forecast HDD (30 yr.)	1982 to 2011	1983 to 2012	1984 to 2013	
6	Years used to Forecast HDD (20 yr.)	1992 to 2011	1993 to 2012	1994 to 2013	
7	Forecasted NAC (m ³ per customer)	1	143,867	165,085	169,121

Notes:

1 Forecasted NAC is the Target NAC

UNION GAS LIMITED
Consumption and Heating Degree Day
Rate Class 10

Line No.	Particulars	Note	2013	2014	2015
1	Actual Consumption (m ³ /customer)		176,009	186,046	165,898
2	Actual HDD		5,131	5,361	4,912
3					
4	Forecasted HDD		4,838	4,782	4,832
5	Years used to Forecast HDD (30 yr.)	1982 to 2011	1983 to 2012	1984 to 2013	
6	Years used to Forecast HDD (20 yr.)	1992 to 2011	1993 to 2012	1994 to 2013	
7	Forecasted NAC (m ³ per customer)	1	157,381	167,443	169,025

Notes:

1 Forecasted NAC is the Target NAC

UNION GAS LIMITED
Actual Heating Degree Day

Line No.	Year	Union South	Union North	30 Year Average		20 Year Trend		50:50 Normal HDD	
				Union South	Union North	Union South	Union North	Union South	Union North
1	1982	4,010.9	5,429.7						
2	1983	3,908.1	5,195.3						
3	1984	3,997.2	5,174.7						
4	1985	3,926.2	5,437.8						
5	1986	3,881.8	5,175.2						
6	1987	3,683.6	4,722.4						
7	1988	3,986.4	5,316.7						
8	1989	4,153.9	5,654.2						
9	1990	3,571.5	4,993.8						
10	1991	3,631.2	5,018.5						
11	1992	4,030.7	5,488.9						
12	1993	4,104.9	5,460.3						
13	1994	4,054.8	5,293.6						
14	1995	3,987.0	5,357.8						
15	1996	4,152.5	5,550.0						
16	1997	4,005.1	5,384.1						
17	1998	3,174.9	4,457.4						
18	1999	3,553.5	4,754.0						
19	2000	3,791.6	5,065.1						
20	2001	3,468.6	4,612.9						
21	2002	3,652.1	5,006.5						
22	2003	3,988.1	5,146.5						
23	2004	3,806.6	5,216.2						
24	2005	3,837.5	4,865.8						
25	2006	3,407.4	4,472.7						
26	2007	3,699.9	4,887.8						
27	2008	3,869.1	5,039.7						
28	2009	3,824.1	5,049.0						
29	2010	3,573.6	4,461.5						
30	2011	3,695.1	4,741.0						
31	2012	3,274.2	4,367.3						
32	2013	3,874.6	5,130.6	3,814.3	5,081.0	3,575.6	4,594.7	3,694.9	4,837.8
33	2014	4,221.1	5,360.7	3,789.7	5,045.6	3,498.9	4,518.1	3,644.3	4,781.8
34	2015	3,834.2	4,912.0	3,788.6	5,043.4	3,573.7	4,620.6	3,681.1	4,832.0

UNION GAS LIMITED
Linear Equation for 20 year
Heating Degree Day for Rates M1 and M2 - Union South

Line No.	Variables	2013	2014	2015
1	Intercept	40,026.266	46,782.572	31,758.6728
2	Trend	- 18.108 -	21.491 -	13.9876
3	Forecast HDD	3,575.6	3,498.9	3,573.7

UNION GAS LIMITED
Linear Equation for 20 year
Heating Degree Day for Rates 01 and 10 - Union North

Line No.	Variables	2013	2014	2015
1	Intercept	78,261.80783	81,821.08672	61,100.12662
2	Trend	- 36.59569 -	38.38283 -	28.02952
3	Forecast HDD	4,594.7	4,518.1	4,620.6

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 1, P.24-28 and EB-2014-0271 Exhibit B.Staff.4, Page 1

Preamble: Lines 11-13 of page 25 state: *"Using the Board-approved aggregate excess methodology, Union then calculated the change in storage requirements for each of the general service rate classes due to variances in NAC"*

Please confirm aggregate excess uses the difference between summer and winter consumptions to determine a forecasted storage utilization.

- a) Please provide the data used for generating the storage cost for the general service rate classes for 2013/14 and 2014/15 for the 2014 and 2015 NAC storage costs.
- b) Please show a sample calculation using the M1 rate class for the 2015 NAC storage costs.
 - i) Please provide the rationale for the unit costs of storage included in the calculation and the specific authority Union obtained for that unit cost.

Response:

Not confirmed. The aggregate excess methodology is based on the difference between each general service rate classes' total winter consumption (November 1 through March 31) and its average daily consumption for the year multiplied by 151 days of winter.

- a) For data used to calculate the 2014 NAC storage costs, please see Attachment 1 for Union's interrogatory response filed in its 2014 Deferrals Disposition Proceeding (EB-2015-0010), Corrected Interrogatory Responses, Exhibit, B.OGVG.7, pp.3-6, CORRECTED.

Please see the response at Exhibit B.Staff.4 for the calculation of the 2015 NAC storage costs.

- b) Please see the response at Exhibit B.Staff.4 for the calculation of change in storage space requirements by rate class, calculation of total storage costs, and allocation to rate classes based on the change in storage space requirements.
 - i) As Union's Board-approved storage rates during the IR term are not updated to reflect changes in storage requirements due to NAC variances, Union must capture the NAC-related storage costs in the NAC Deferral Account as per the Board's Decision in Union's 2013 Deferrals Disposition proceeding (EB-2014-0145), p. 9:

“starting in 2014, the NAC Deferral Account, which replaces the Average Use Per Customer Deferral Account, will include storage related revenues and costs for general service rate classes.”

Union has calculated the 2015 NAC-related storage costs using the Board-approved methodology that was utilized when calculating the 2014 NAC-related storage costs in Union’s 2014 Deferrals Disposition proceeding (EB-2015-0010).

These storage costs are based on Union’s Board-approved cost allocation study and Board-approved rates. For example, the O&M cross-charge is based on the Board-approved excess utility storage space revenue requirement and compressor fuel and unaccounted for gas costs are based on Union’s Board-approved Ontario Landed Reference Price.

Filed: 2015-07-14

EB-2015-0010
Exhibit
B.OGVG.7 Page 3
of 6
CORRECTED

a)

Volume Change due to Change in Usage (in 10³m³)

	Rate M1	Rate M2	Rate 01	Rate 10	Total
Apr-14	-24,414	23,286	517	1,878	1,267
May-14	-16,941	23,141	1,151	2,173	9,524
Jun-14	-8,517	19,356	3,724	3,675	18,237
Jul-14	-2,742	7,692	841	2,189	7,981
Aug-14	-5,496	7,673	-512	2,826	4,491
Sep-14	-9,726	13,576	-449	1,964	5,365
Oct-14	-30,604	30,175	138	2,479	2,189
Nov-14	-16,222	30,404	2,722	5,216	22,119
Dec-14	3,161	9,595	607	5,420	18,783
Jan-15	4,657	-7,827	442	707	-2,022
Feb-15	-1,658	1,504	-304	2,616	2,158
Mar-15	-8,631	12,774	1,507	2,235	7,886
Total	-117,134	171,349	10,384	33,378	97,977

Aggregate Excess Impact - Volume Change due to change in Usage

	Rate M1	Rate M2	Rate 01	Rate 10	Total
Annual	-117,134	171,349	10,384	33,378	97,977
(/365*151)	-48,458	70,887	4,296	13,809	40,533
Winter	-18,694	46,450	4,974	16,193	48,924
Storage Impact (in 10 ³ m ³)	29,764	-24,437	678	2,385	8,391
Convert to GJ	1,139,664	-935,678	25,667	90,220	319,873
Total Aggregate Excess Impact (GJ)	1,139,664	-935,678	25,667	90,220	319,873
Total Aggregate Excess Impact (PJ)	1.14	-0.94	0.03	0.09	0.32

b)

Additional Space

0.32

Line No.	Particulars (\$ 000's)	South Usage		North Usage		Total Costs
		M1	M2	01	10	
	Storage Space (PJ)	1.14	(0.94)	0.03	0.09	0.32
<u>Costs of storage</u>						
1	O&M (Revenue Req't cross charge)	385	(316)	9	30	108
2	UFG	31	(26)	1	2	9
3	Compressor Fuel	118	(97)	3	9	33
4	Third Party Costs	-	-	-	-	-
5	Dawn to Parkway Costs	-	-	4	14	18
6	Inventory Carrying Costs	199	(163)	4	16	56
7	Deliverability	99	(82)	2	8	28
8	Total Costs	833	(684)	23	80	251

O&M Cross Charge

PJ of Additional Gas	0.32
Board Approved Cross Charge @ 11.3 PJ	\$ 3,810,000
O&M Cross Charge @ 0.32 PJ	\$ 107,894

Unaccounted For Gas

Board-approved Volume for 11.3 PJ	56,773	GJ
Volume Allocation for 0.32 PJ (56,773 x 0.32/11.3)	1,608	GJ
October 2014 WACOG	\$ 5,435	/ GJ
UFG Costs	\$ 8,738	

Compressor Fuel

Board-approved volume for 11.3 PJ	215,774	GJ
Volume allocation for 0.32 PJ (215,774 x 0.32/11.3)	6,110	GJ
October 2014 WACOG	\$ 5,435	/ GJ
Compressor Fuel Costs	\$ 33,210	

Dawn to Parkway Costs

North Additional Storage for Usage (GJ)	115,887	GJ
Dawn to Parkway Rate	\$ 0.07960	/GJ
Dawn to Parkway Toll	\$ 9,225	
Dawn to Parkway Fuel Ratio	1.320%	
October 2014 WACOG	\$ 5,435	/GJ
Dawn to Parkway Fuel	\$ 8,314	
Dawn to Parkway Costs (North GS)	\$ 17,539	

Inventory Carrying Costs

GJ of Additional Gas	320,000	GJ
Average Inventory Level (per Inventory Profile)	62%	
October 2014 WACOG	\$ 5.435	/GJ
Inventory Carrying Charge	<u>5.18%</u>	
Inventory Carrying Costs	\$ 55,856	

Deliverability

GJ of Additional Gas	320,000	GJ
Additional Deliverability (1.8% vs. 1.2%)	0.6%	
Board Approved Monthly T1 Rate for Deliverability	<u>\$ 1.210</u>	/GJ
	2,323	
	<u>12</u>	months
Deliverability Costs	\$ 27,878	

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 1, Pages 24-28 and EB-2014-0271 Exhibit B.Staff.4, Page 1

Preamble: The response to Staff IRR #4 in the 2015 Rates proceeding responded with: *"If Union's proposal is not accepted by the Board and there are incremental upstream transportation costs as a result of increases in NAC, Union will include those costs in the NAC deferral account."*

- a) Please quantify the upstream transportation cost reductions that would have been included in the NAC account for the reduction in NAC for both Rate 1 and Rate 10 classes if the change had not been made.

Response:

- a) This question is not relevant to Union's 2015 Deferral Account Disposition proceeding as Rate 01 and Rate 10 are Union North rates. The Board-approved NAC deferral account calculation does not include Union North Transportation rates.

Therefore, Union has not provided a response.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 4, P.19 and "Union Gas Request for Proposals for Firm Ojibway Transportation Capacity" dated May 26, 2016.

Preamble: The above referenced request opened with: *"Union Gas Limited ("Union") is inviting your company, along with other suppliers, to submit proposals to provide Union with Long Term Firm Transportation capacity to the Panhandle Pipeline interconnection with Union Gas (Union Ojibway point) starting as early as November 1, 2016. Later start dates and combined Supply and Transportation purchases will also be considered."*

Please file the referenced request for proposal.

- a) Please file the results of the request for capacity and analysis that was done to select desired proposals.
- b) Please explain implications of these potential solutions on Union's forthcoming Panhandle replacement project.

Response:

- a-b) Union filed the Panhandle Reinforcement Application and Evidence (EB-2016-0186) on June 10, 2016. Questions regarding the Panhandle project should be addressed in that proceeding.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 4, Appendix A, Schedules 1 and 2 and EB-2015-016/0175
Transcript Volume 1, PP.31-32

Preamble: We note the Incremental Transportation Contracting Analysis is dated January 2015 and in the above Transcript reference, Union stated that it had approximately 150,000 GJ/day of capacity that had not been committed starting Nov. 2017.

a) Please file Union's most recent Incremental Transportation Contracting Analysis.

Response:

a) Please see the response at Exhibit B.BOMA.15.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 4, Appendix A, Schedules 1 and 2
and EB-2015-016/0175 Transcript Volume 1, pages 31-32

Please file SENDOUT summary tables that Union used to review alternatives for winter of 2016/2017 and beyond including Nov. 2017.

- a) Please ensure that the above analysis include considerations of the Niagara receipt point.
- b) If SENDOUT did not inform the decision on paths to renew/increase, please provide the analytical analysis that did inform the choices.

Response:

- a) Union has not completed its Gas Supply Plan for the 2016/2017 winter.
- b) SENDOUT is only one of the tools used by Union to inform its transportation contracting decisions. When managing its transportation portfolio and analyzing potential pipeline paths and supply sources, Union does so in the context of its Gas Supply Planning Principles. These principles ensure customers consistently receive secure, diverse natural gas supply at a prudently incurred cost and minimal risk. These principles also help Union to determine whether changes are required to the current transportation and supply portfolios. In addition, landed cost analyses are performed to ensure that a transportation path is reasonably priced as compared to alternatives. One of the costs included in the landed cost analyses is the Niagara receipt point and can be found in Exhibit A, Tab 4, Appendix A, Schedules 1 and 2.

UNION GAS LIMITED

Answer to Interrogatory from
Federation of Rental-housing Providers of Ontario ("FRPO")

Reference: Exhibit A, Tab 4, Appendix A, Schedules 1 and 2
and EB-2015-016/0175 Transcript Volume 1, pages 31-32

Please file Union's 2016/17 Gas Supply Memorandum.

Response:

The Gas Supply Memorandum will be filed in Union's 2017 Rates proceeding.

UNION GAS LIMITED

Answer to Interrogatory from
Industrial Gas Users Association (“IGUA”)

Reference: Exhibit A, Tab 3, Appendix A, Schedule 3.

Union provides general service customer bill impacts of its proposal for clearance of variance accounts.

Please provide customer bill impacts for all of Union’s rate classes, including both total bill and delivery rate percentage impacts.

Response:

Please see the response at Exhibit B.BOMA.11, Attachment 1.

UNION GAS LIMITED

Answer to Interrogatory from
Industrial Gas Users Association (“IGUA”)

Reference: Exhibit A, Tab 4, page 6.

In addressing the benefits of the TransCanada Empress to Union SSMDA (5 year) transportation contracts, Union states that Winter STS withdrawals can be pooled away from the Union SSMDA delivery area to meet the needs in other Union North delivery areas.

- a) Please indicate whether such pooling would still be available in the event that the NEB accepts TransCanada’s current application for changes to its STS services.

Response:

- a) TransCanada’s application, as filed with the NEB, does not eliminate withdrawal pooling rights; however withdrawal pooling rights will be subject to a surcharge.

UNION GAS LIMITED

Answer to Interrogatory from
Industrial Gas Users Association (“IGUA”)

Reference: Exhibit A, Tab 5, page 13.

In the table presenting 2015 DSM results, please explain what the “Incremental Projects” line refers to (actual expenditures of \$214,000 in 2015).

Response:

The “Incremental Projects” line refers to Union’s DSM Tracking and Reporting System upgrade project¹.

¹ EB-2015-0029, Exhibit A, Tab 2, Table 3

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 1, page 23

- a) Please show how the Board-approved UFG percent of 0.219% was calculated.
 - b) Please provide a reference to where the Board approved the 0.219% figure.
 - c) Please provide the actual UFG percent for the last 10 years.
-

Response:

- a) Please see Attachment 1.
- b) The UFG percent of 0.219% was proposed in Union's 2013 Cost of Service proceeding (EB-2011-0210). UFG was a settled issue (Settlement Agreement, June 28, 2012, Issue 3.5, p.11). The Settlement Agreement was approved by the Board on July 25, 2012 at Transcript Volume 9.
- c)

<u>Year</u>	<u>UFG %</u>
2006	0.516
2007	0.609
2008	0.411
2009	0.637
2010	0.192
2011	0.105
2012	0.210
2013	0.320
2014	0.318
2015	0.174

UNION GAS LIMITED
Unaccounted for Gas Volume
For the Year Ending December 31,
2013

Line No.	Particulars	Volume (a)	Weighting (b)	Volume Weighted (c)	
<u>Determination of Forecast UFG volume for 2013</u>					
	3 year average of actual UFG (10^3m^3):				
1	2011	35,668	50%	17,834	/u
2	2010	67,283	33%	22,203	/u
3	2009	201,845	17%	34,314	/u
4	Average actual UFG volume			<u>74,351</u>	/u
	3 year average of actual throughput (10^6m^3):				
5	2011	33,824	50%	16,912	/u
6	2010	35,090	33%	11,580	/u
7	2009	31,677	17%	5,385	/u
8	Average actual UFG throughput			<u>33,877</u>	/u
9	UFG ratio for 2013 (line 4 / line 8 / 1,000)			0.219%	/u
10	2013 total forecast throughput (10^6m^3)			32,010	
11	Estimated UFG volume for 2013 (10^3m^3) ⁽¹⁾			70,253	/u
12	Estimated UFG for 2013 (\$000's) ⁽²⁾			<u>14,234</u>	/u
13	Unregulated Allocation - Short-Term (\$000's)		2.514%	(358)	/u
14	Unregulated Allocation - Long-Term (\$000's)		7.036%	(1,001)	/u

Note:

(1) Line 9 * line 10 * 1,000.

(2) Calculated using EB-2010-0359 reference price of $\$202.61/10^3\text{m}^3$.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 1, page 33

- a) Please explain why the actual 2014 revenue requirement did not already include the long term debt rate of 3.82%.
 - b) Please explain how the long term debt rate of 3.82% that has been used for both 2014 and 2015 calculation of the revenue requirement was determined.
-

Response:

- a) The long-term debt rate of 3.82% was based on the actual weighted average cost of long-term debt issued. The cost of debt is a forecast until new incremental long-term debt is issued. Union did not update the 2014 revenue requirement until the long-term debt for 2015 was issued. The Parkway West Project deferral account for 2015 includes a true-up of the long-term debt cost to 3.82% for the assets put in service in 2014 and 2015.
- b) The cost rate of 3.82% is the actual weighted average cost rate of long-term debt issued by Union in 2015.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 1, page 39

- a) What is Union's overall weighted average cost of long term debt in 2015?
 - b) Was the 4.0% forecast of the long term debt rate the overall weighted average cost of long term debt for Union, or was it the forecasted long term debt for incremental borrowing required to finance the Parkway project?
-

Response:

- a) Union's overall weighted average cost of long-term debt is 5.64%. Please see Exhibit A, Tab 2, Appendix A, Schedule 4, line 1.
- b) The 4.0% was the forecasted incremental long-term debt rate for 2015 (the year the Parkway west was projected to be placed into service).

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association (“LPMA”)

Reference: Exhibit A, Tab 1, pages 32 & 48

- a) Please explain the relationship, if any, between the price variance shown in Tables 10 with that shown in Table 15.

Response:

- a) There is no relationship between the price variances shown in Tables 10 and 15.

The price variance in Table 10 refers to the difference between the Board-approved reference price for UFG of \$210.506 / 10³m³ (EB-2011-0210) versus the actual reference prices approved by the Board by quarter in 2015. The variance between these reference prices are updated through the QRAM process.

The price variance in Table 15 refers to the difference between the actual reference prices approved by the Board (by applicable quarter) relative to the actual cost of gas in the same period.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 1, Tables 11, 13 & 16

- a) Please explain why the long term debt rate of 3.82% used in Tables 11 and 13 was not used in Table 16.
 - b) What is the basis for the long term debt rate of 4.40% used in Table 16?
-

Response:

Union calculates the revenue requirement for a project using the Board-approved cost parameters until actual values are known. Until an actual debt cost is known the forecast long-term debt rates are used. Union attributes the debt cost as the rate for the year the project is brought into service. Portions of the 2016 projects have an in-service date of 2015 while the project itself has a 2016 in-service date.

- a) The long-term debt rate of 3.82% is applicable to the Parkway West project (Table 11) and the Brantford-Kirkwall/Parkway D project (Table 13). Table 16 is the revenue requirement for the portion of the assets of the 2016 Lobo C and Hamilton-Milton projects that was put in-service in 2015. The long-term debt rate for these projects will be updated to the actual rate incurred in 2016.
- b) The rate of 4.40% is the forecasted incremental cost of debt that was used for the facilities proceeding. The 4.40% rate will be trued-up to an actual cost for the disposition of the 2016 deferral account balances.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 2, Corrected

- a) Is the calculation of utility earnings consistent with the methodology used to calculate the earnings in previous years? If not, please explain any differences.

Response:

- a) Yes, the methodology used to calculate earnings sharing and utility earnings is consistent with previous years.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 2, Appendix B, Schedule 1

a) What was Union's normalized actual return on equity for 2015.

Response:

a) Please see the response at Exhibit B.Energy Probe.8 a).

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Reference: Exhibit A, Tab 2, Corrected, page 6 & Exhibit A, Tab 2, Appendix B, Schedule 1

- a) Schedule 1 shows an adjustment of \$1,154 in line 14 for foreign exchange. This is described in Tab 2 as a foreign exchange gain and this results in a 2015 Utility loss of \$442. Please explain how the adjustment (gain) was calculated, based on the total loss of \$1,614 and the loss of \$18 allocated to unregulated storage.

Response:

- a) The \$1.154 million adjustment for foreign exchange represents an unrealized foreign exchange gain on bank balances in foreign currency. For US GAAP reporting purposes, this amount is included in interest expense as a reduction to that expense. Accordingly, on Exhibit A, Tab 2, Appendix B, Schedule 1, column (a), the foreign exchange gain is excluded from the calculation of earnings before interest and taxes.

In order to recognize the foreign exchange gain on bank balances in foreign currency in 2015 utility results, Union has included the gain in Union's utility earnings sharing calculation as an adjustment.

The total foreign exchange loss of \$1.614 million on Exhibit A, Tab 2, Appendix B, Schedule 1, line 14, column (a), less the \$0.018 million loss allocated to Union's unregulated storage operations and the foreign exchange gain on bank balances of \$1.154 million results in an overall utility loss related to foreign exchange of \$0.442 million.

The allocation of \$0.018 million of the total foreign exchange loss to Union's unregulated storage operations is calculated based on the proportion of 2015 O&M expenses that were allocated to unregulated storage.

UNION GAS LIMITED

Answer to Interrogatory from
Ontario Greenhouse Vegetable Growers ("OGVG")

Reference: Exhibit A, Tab 1, pp 23 of 53

Preamble: The 2015 target NAC for each rate class was approved by the Board in Union's 2015 Rates proceeding (EB-2014-0271). The 2013 actual NAC, weather normalized using the 2015 weather normal, was used to determine the 2015 target NAC. Setting the 2015 target NAC based on the 2013 actual NAC recognizes that over the two-year span to the current year, any saved volumes and associated lost revenues due to DSM activities will be captured by the variance between the target and actual consumption. This is due to the inclusion of the DSM saved volumes within the actual reported consumption.

- a) Please confirm that 2015 base rates were calculated without any adjustments to account for increases or decreases in normalized average consumption relative to 2013 actuals. If not confirmed, please explain and quantify any adjustments made to 2015 base rates to account for increases or decreases in normalized average consumption relative to 2013 actuals.
- b) Assuming a) is confirmed, please calculate the impact on the 2015 earnings sharing amounts had 2015 rates incorporated an adjustment to reflect a forecast change in normalized average consumption. For the purposes of this question please assume that the adjustment would have been exactly equal to the variance captured in the NAC Deferral Account for 2015.

Response:

- a) Not confirmed. In Union's 2015 Rates application (EB-2014-0271), Union adjusted the general service storage and delivery rates for the 2013 Actual NAC. Please see Attachment 1 for the applicable 2015 Rate Order working papers calculating the volumetric adjustments made to Union's general service rate classes.
- b) Notwithstanding the response to a) above, the proposed NAC deferral account balance of \$10.5 million has been reflected in Union's 2015 utility results.

UNION GAS LIMITED
Calculation of 2015 NAC Target Percentage Change
to General Service Rate Classes

<u>Line No.</u>	<u>Particulars (m³)</u>	<u>2012 Actual NAC (1)(2) (a)</u>	<u>2013 Actual NAC (1)(3) (b)</u>	<u>NAC Variance (c) = (b - a)</u>	<u>2015 NAC Target % Change (d) = (c / b)</u>
1	Rate 01	2,898	2,799	(99)	-3.5%
2	Rate 10	167,443	162,078	(5,365)	-3.3%
3	Rate M1	2,751	2,676	(75)	-2.8%
4	Rate M2	165,085	162,129	(2,956)	-1.8%

Notes:

- (1) NAC based on 2013 Board-approved 50:50 Normal weather methodology.
- (2) 2012 actual NAC calculated using 2014 weather normal.
- (3) 2013 actual NAC calculated using 2015 weather normal.

UNION GAS LIMITED
Calculation of 2015 NAC Target Percentage Change
Volumetric Adjustments to Union North General Service Rate Classes

Line No.	Particulars (10 ³ m ³)	Approved 2014 Billing Units (1) (a)	2015 NAC Target % Change (2) (b)	Change in Billing Units (c) = (a x b)	Proposed 2015 Billing Units (d) = (a + c)
<u>Rate 01 Delivery</u>					
1	First 100 m ³	273,335	-3.5%	(9,668)	263,668
2	Next 200 m ³	310,365	-3.5%	(10,978)	299,388
3	Next 200 m ³	135,394	-3.5%	(4,789)	130,605
4	Next 500 m ³	92,475	-3.5%	(3,271)	89,204
5	All Over 100 m ³	115,393	-3.5%	(4,081)	111,312
6	Total Rate 01 Delivery	<u>926,963</u>		<u>(32,786)</u>	<u>894,177</u>
<u>Rate 01 Storage</u>					
7	Fort Frances Zone	12,888	-3.5%	(456)	12,432
8	Western Zone	179,519	-3.5%	(6,350)	173,169
9	Northern Zone	403,458	-3.5%	(14,270)	389,187
10	Eastern Zone	331,099	-3.5%	(11,711)	319,388
11	Total Rate 01 Storage	<u>926,963</u>		<u>(32,786)</u>	<u>894,177</u>
<u>Rate 10 Delivery</u>					
12	First 1,000 m ³	25,196	-3.3%	(834)	24,362
13	Next 9,000 m ³	136,028	-3.3%	(4,503)	131,525
14	Next 20,000 m ³	86,525	-3.3%	(2,864)	83,661
15	Next 70,000 m ³	65,606	-3.3%	(2,172)	63,434
16	All Over 100,000 m ³	30,175	-3.3%	(999)	29,177
17	Total Rate 10	<u>343,530</u>		<u>(11,371)</u>	<u>332,159</u>
<u>Rate 10 Storage</u>					
18	Fort Frances Zone	2,824	-3.3%	(93)	2,731
19	Western Zone	48,124	-3.3%	(1,593)	46,531
20	Northern Zone	139,364	-3.3%	(4,613)	134,751
21	Eastern Zone	153,218	-3.3%	(5,072)	148,146
22	Total Rate 10 Storage	<u>343,530</u>		<u>(11,371)</u>	<u>332,159</u>

Notes:

- (1) EB-2013-0365, Rate Order, Working Papers, Schedule 4, column (u).
(2) EB-2014-0271, Rate Order, Working Papers, Schedule 12, Page 1, column (d).

UNION GAS LIMITED
Calculation of 2015 NAC Target Percentage Change
Volumetric Adjustments to Union South General Service Rate Classes

Line No.	Particulars (10 ³ m ³)	Approved 2014 Billing Units (1) (a)	2015 NAC Target % Change (2) (b)	Change in Billing Units (c) = (a x b)	Proposed 2015 Billing Units (d) = (a + c)
	<u>Rate M1 Delivery</u>				
1	First 100 m ³	876,748	-2.8%	(24,573)	852,175
2	Next 150 m ³	778,527	-2.8%	(21,820)	756,707
3	All Over 250 m ³	1,255,698	-2.8%	(35,193)	1,220,505
4	Total Rate M1 Delivery	<u>2,910,973</u>		<u>(81,586)</u>	<u>2,829,388</u>
5	Rate M1 Storage	<u>2,910,973</u>	-2.8%	<u>(81,586)</u>	<u>2,829,388</u>
	<u>Rate M2 Delivery</u>				
6	First 1,000 m ³	60,871	-1.8%	(1,110)	59,761
7	Next 6,000 m ³	296,230	-1.8%	(5,401)	290,829
8	Next 13,000 m ³	334,725	-1.8%	(6,103)	328,622
9	All Over 20,000 m ³	427,626	-1.8%	(7,797)	419,830
10	Total Rate M2 Delivery	<u>1,119,452</u>		<u>(20,410)</u>	<u>1,099,041</u>
11	Rate M2 Storage	<u>1,119,452</u>	-1.8%	<u>(20,410)</u>	<u>1,099,041</u>

Notes:

- (1) EB-2013-0365, Rate Order, Working Papers, Schedule 4, column (u).
(2) EB-2014-0271, Rate Order, Working Papers, Schedule 12, Page 1, column (d).

UNION GAS LIMITED

Answer to Interrogatory from
School Energy Coalition (“SEC”)

Reference: Exhibit A, Tab 1, p.12

- a) Please explain the reasons behind the significant changes in short-term firm peak storage value at Dawn in 2015.

Response:

- a) The changes in the Short-Term Firm Peak Storage price are the result of the natural gas market price differential between summer and winter.

Short-Term Firm Peak Storage values at Dawn are derived by taking the difference between the highest priced winter month (typically January or February) and the lowest priced summer month (typically June). Once trading stops for June, the value of storage relies on typically higher priced summer months as the comparator, which lowers the value of Short-Term Peak Storage. This can be seen by the decline in the graph post May 2015, at Exhibit A, Tab 1, p.12, Figure 1.

Once trading stops for October (typically at the end of September), the graph starts to reflect the 2016 storage year, which utilizes the lowest summer month in 2016 in the derivation of Short-Term Peak Storage value.

UNION GAS LIMITED

Answer to Interrogatory from
School Energy Coalition (“SEC”)

Reference: Exhibit A, Tab 1, A-2

Please explain the variance in the 2015 actual base exchange revenues compared to what was approved in 2013.

Response:

Please see the response at Exhibit B.Staff.2 b).

UNION GAS LIMITED

Answer to Interrogatory from
School Energy Coalition (“SEC”)

Reference: Exhibit A, Tab 5, p.34

- a) Please provide the forecasted additional costs to Union if TransCanada’s STS services application is granted. Please provide details on the other “options to rebalance portfolio” available to Union.

Response:

- a) The impact of TransCanada’s STS services application to Union, as filed with the NEB, and assuming no corresponding adjustments are made to Union’s portfolio, is an incremental cost ranging from \$24 million to \$37 million per year. This incremental cost range does not include potential abandonment surcharges on any withdrawal pooling.

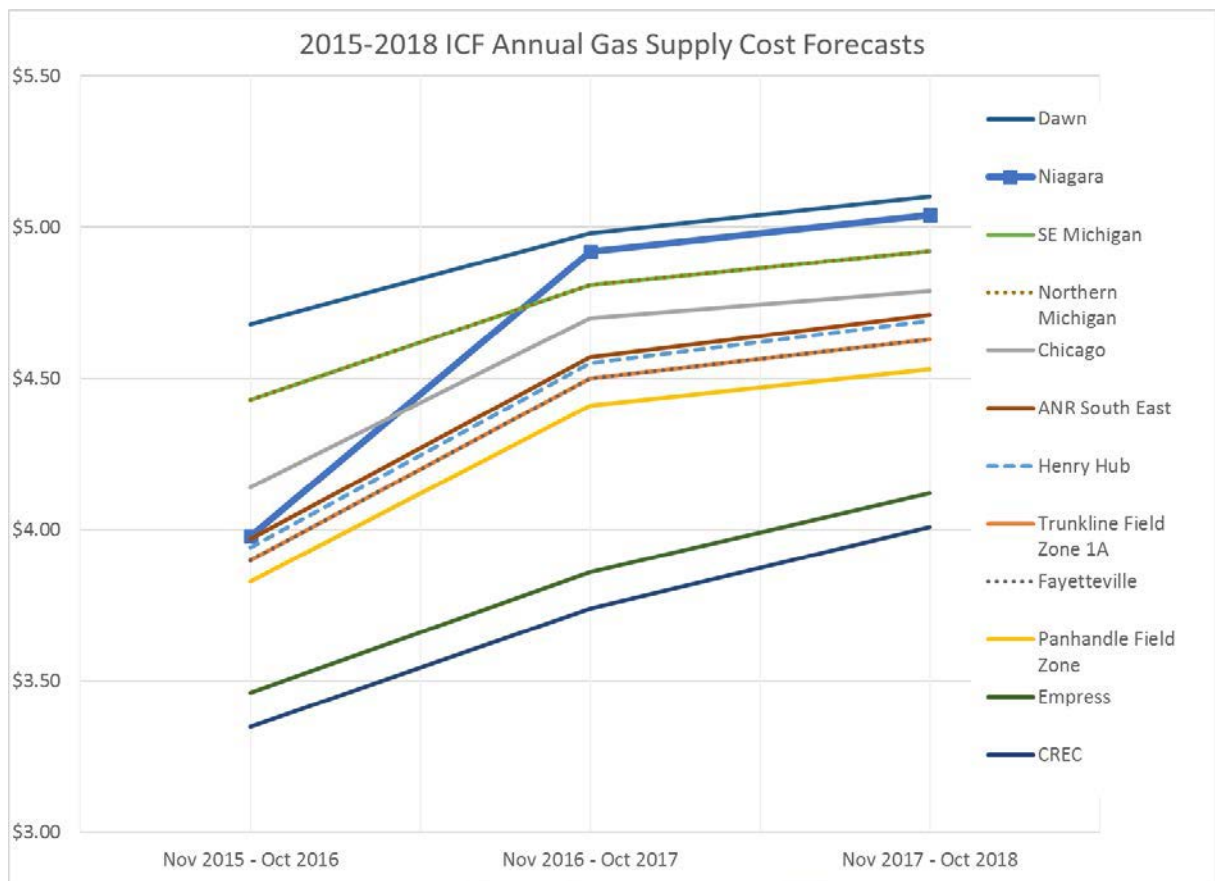
Union notes that the proceeding is currently underway and that the NEB has not issued a decision on the application. Union is unable to determine the actions that will need to be taken as a result of an NEB decision in this matter. When an NEB decision is rendered, Union will analyze all available options, including but not limited to, existing mainline firm services such as STS, FT, and Enhanced Market Balancing (“EMB”), to rebalance its portfolio as required. Please see the response at Exhibit B.BOMA.20.

UNION GAS LIMITED

Answer to Interrogatory from
TransCanada Pipelines Limited (TransCanada)

Reference: Exhibit A, Tab 4, Appendix A, Schedule 2

Preamble: The above reference includes a table entitled: “Assumptions used in Developing Transportation Contracting Analysis” which tabulates forecasted prices at various hubs which were generated from the ICF Q1 2015 Base Case. Values from this table are charted in the figure below.



- a) Note that the increase at the Niagara price point is much larger than the increase at any other pricing point. Please explain the market factors in terms of supply, demand and/or infrastructure that cause the Niagara pricing point to increase so significantly from the 2015 gas year to the 2016 gas year.

Response:

- a) The exhibit is provided by ICF and represents a forecast of market factors influencing pricing as a point in time. Niagara is not a liquid point and is subject to price volatility.

ICF has not provided Union with any specific drivers for the increase in forecasted costs, but given the illiquid nature of the Niagara price, spikes in general are reasonably expected.

Union describes the liquidity of Niagara versus Dawn extensively in Section 3.1 of Union's Burlington Oakville Project - Reply Evidence (EB-2014-0182). Selected excerpts are highlighted below:

Niagara is a trans-shipment point between TransCanada and three U.S. pipelines: National Fuel Gas, Dominion Transmission and Tennessee Gas Pipeline. Historically, natural gas was exported at Niagara from Canada via the TransCanada system through a pipeline crossing the Niagara River to the United States. Flow through Niagara to the three U.S. pipelines historically reached as much as 1.2 PJ/d; however, Niagara was not considered liquid.

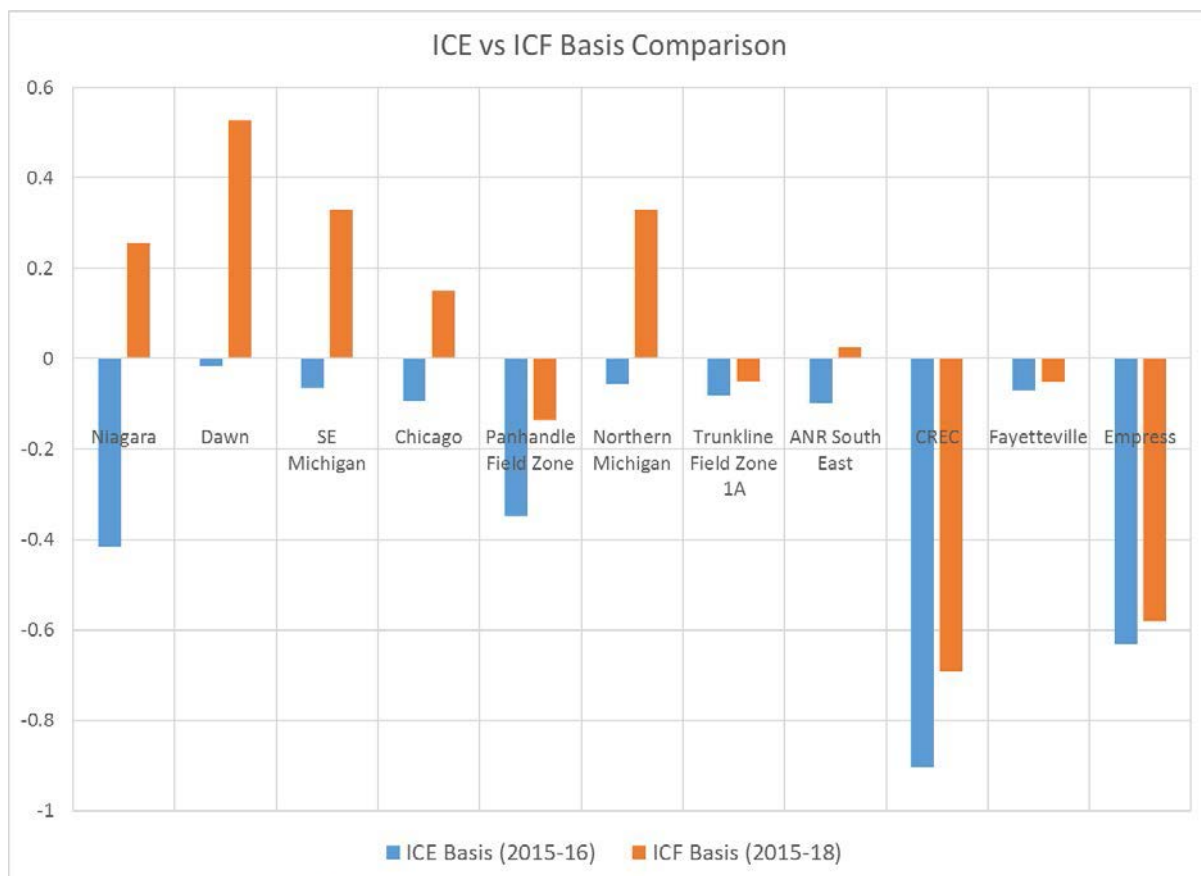
*Since 2012, flow has primarily reversed from the United States to bring Marcellus production through Niagara into Canada. Despite its proximity to the Marcellus region, **Niagara is not a liquid point**. Liquidity at Niagara is low due to its limited pipeline connectivity, distance from storage, limited number of counterparties who buy and sell at that point and limited price discovery. Even with TransCanada transportation contracts expected to exceed 1 PJ/d from Niagara to points in Ontario and Quebec, Niagara remains a trans-shipment point and is not expected to develop into a liquid trading point."*

UNION GAS LIMITED

Answer to Interrogatory from
TransCanada Pipelines Limited (TransCanada)

Reference: Exhibit A, Tab 4, Appendix A, Schedules 1 & 2

Preamble: The above reference includes tables entitled: “2015-2016 Transportation Contracting Analysis” (Schedule 1) and “2015-2018 Transportation Contracting Analysis” (Schedule 2). Both are breakdowns of Union’s Landed Cost calculations and include Basis Differentials from Henry Hub. The first is a 12-month outlook based on ICE Natural Gas Futures from Jan 27, 2015. The second is a 3-year outlook based on a forecast from ICF’s Q1 2015 Base Case. Graphed below is a comparison of the basis differential of pricing hubs sourced from the ICE gas futures and from the ICF forecast.



- a) Please explain why the Henry Hub basis differential increases for every pricing point in the ICF Q1 Base Case forecast compared to the ICE Natural Gas Futures. Specifically, what market changes in terms of supply, demand and/or infrastructure were included in the ICF 3-

year forecast completed in Q1 2015 that were not captured by the market in the 12 month futures prices on Jan 27, 2015?

Response:

- a) Union uses ICE for one-year landed cost calculations which reflects actual traded futures over a 12 month period.

For longer term landed cost analysis, Union engages ICF to provide a gas cost forecast. ICF considers changes in the market based on the available information at the time the forecast is prepared and includes assumptions on supply, demand, changes in production and storage inventory.

Forecasts for the longer term period will be different than a 12 month period forward basis. The forward basis is heavily influenced by the market conditions experienced at the time of the quote, and the basis in the futures market can change quickly when weather conditions or other near term market conditions change. The longer term forecasts are less susceptible to near term changes due to weather and other factors.

Union is not able to provide specific items in terms of supply, demand and infrastructure explaining the differences between ICF 3-year forecast and ICE 12 month future period.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Reference: Exhibit A, Tab 1, p.2

- a) Is the reason there is no balance in Account 179-107 (Spot Gas Variance) because the spot volumes purchased were not in excess of planned purchases? If yes, then please provide the volumes planned and those purchased. If no, please explain the reason(s) why no balances were recorded.

Response:

- a) There is no balance in the Spot Gas Variance Account 179-107 because there were no spot volumes purchased that required Board approval outside of a QRAM proceeding.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition (“VECC”)

Reference: Exhibit A, Tab 1, p.9

- a) When was the TCPL Risk Elimination Credit (FT-RAM) cancelled?
 - b) Please provide the credit revenues for each of 2012 through 2015
 - c) Please explain the mechanism in which credit is monetized against interruptible transportation to establish the forecast \$5.8 million of exchange revenue (i.e. how does/did the credit become a revenue input).
 - d) What, if any, mitigation activity did Union undertake in advance of the credit’s elimination?
-

Response:

- a) The TransCanada FT-RAM program was cancelled effective July 1, 2013.
- b)

<u>Year</u>	<u>Credit Revenues</u> <u>(FT-RAM Exchange Revenues, \$ millions)</u>
2012 Actual	\$ 37.276
2013 Board- approved	\$ 5.800
2013 Actual	\$8.338
2014 Actual	-
2015 Actual	-

- c) Included in Union’s 2013 Board-approved rates was a credit of \$5.220 million related to 90% of the \$5.8 million FT-RAM Exchange Revenue. There has been no change to the amount of gas supply optimization margin included in Union’s rates since 2013. Please see Exhibit B.EnergyProbe.6, Attachment 1, p.2 for the allocation of gas supply optimization margin to rate classes.
- d) TransCanada proposed to eliminate FT-RAM as part of their RH-003-2011 proceeding in front of the National Energy Board (“NEB”). Union opposed TransCanada’s proposal, The NEB discontinued FT-RAM effective July 1, 2013.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition (“VECC”)

Reference: Exhibit A, Tab 1, p.23

- a) Please provide the DSM saved volumes that were included for the purpose of calculating the 2015 actual NAC.
- b) Please provide the saved volumes and actual and forecast NAC for 2013 and 2014.
- c) Please provide a table showing the Target NAC, the Actual NAC and the difference for the years 2012 – 2015 for Rate Classes 01, 10, M1 and M2
- d) In Union’s last deferral account disposition filing (EB-2015-0010) account 179-33 NAC had a credit balance ending 2014 of \$1.554 million. The 2015 ending balance for this account is a \$10.546 debit. Please explain the underlying reasons for this significant fluctuation in the year-to-year NAC balances.

Response:

- a) For each rate class the actual NAC is the result of dividing the weather normalized actual volume by the number of customers. Any saved volumes due to DSM activities are captured by the actual reported volumes. The estimated pre-audited DSM volumes per customer for 2015 are shown below.

DSM Saved Volumes
(m³/ customer)

Line No.	Year	Rate M1	Rate M2	Rate 01	Rate 10
1	2015	8	1,682	5	632

Notes: Based on pre-audit results

- b) Please see Attachment 1.
- c) Please see Attachment 2.

- d) The balance in the NAC deferral account in a given year is the difference between the target NAC and actual NAC in that year. When the target NAC exceeds the actual NAC a debit balance is generated in the deferral account as rates have been set too low for that year (more billing units have been added to the rates calculation for that year than should have been based on the actual outcome). Conversely, when the actual NAC exceeds the target NAC a credit balance is generated in the deferral account as rates have been set too high for that year (fewer billing units have been added to the rates calculation for that year than should have been based on the actual outcome).

There is a two-year lag between the NAC used to calculate the target and the actual NAC. For example, the target NAC for 2015 rates was set based on the 2013 actual NAC (weather normalized at the 2015 Board-approved 50:50 weather normal). Therefore, it takes two years for changes in the actual NAC to work their way through the rates calculation. Over the past three years (2013-2015) the actual NAC has been trending downward in each of the rate classes (please see Attachment 2).

As noted in Attachment 2, the 2013 actual NAC exceeded the target NAC. This resulted in a credit to ratepayers in 2013 totaling \$11.5 million (EB-2014-0145, Exhibit A, Tab 1, p.36, line 9). In 2014, the actual NAC again exceeded the target NAC however the gap narrowed as the actual NAC was decreasing. This resulted in a credit balance of \$2.076 million in the 2014 NAC deferral account (EB-2015-0010, Exhibit A, Tab 1, Corrected, p. 25, line 1). In 2015, the actual NAC continued its downward trend causing the actual NAC to be below the target NAC in each of the rate classes. From a rates perspective, 2015 rates were set too low as more billing units were added than needed based on actual results. Therefore, as noted above, the result is that the NAC deferral account has a debit balance.

UNION GAS LIMITED
DSM Saving Volumes
(m³)

Line No.	Rate Class	2013			2014		
		DSM Savings	Actual NAC (a)	Target NAC (b)	DSM Savings	Actual NAC (a)	Target NAC (b)
1	Rate M1	7	2,768	2,778	8	2,748	2,751
2	Rate M2	1,637	169,422	143,867	1,942	167,537	165,085
3	Rate 01	4	2,900	2,765	6	2,923	2,898
4	Rate 10	1,748	168,975	157,381	1,257	171,670	167,443

Notes:

2013 2013 Target NAC corresponds to the 2013 Board-approved forecasted NAC at the Board-approved 50:50 2013 Weather Normal.

2014 2014 Target NAC corresponds to the actual 2012 NAC weather normalized at the Board-approved 50:50 2014 Weather Normal.

UNION GAS LIMITED
Board Approved (Target) NAC and Actual NAC
(units in m³)

		2012			2013			2014			2015		
Line No.	Rate Class	Actual NAC (a)	Target NAC (b)	Difference (b-a)	Actual NAC (a)	Target NAC (b)	Difference (b-a)	Actual NAC (a)	Target NAC (b)	Difference (b-a)	Actual NAC (a)	Target NAC (b)	Difference (b-a)
1	Rate M1				2,768	2,778	10	2,748	2,751	4	2,676	2,761	85
2	Rate M2	4,090	4,096	6	169,422	143,867	-25,556	167,537	165,085	-2,452	163,129	169,121	5,992
3	Rate 01	3,186	3,109	-77	2,900	2,765	-135	2,923	2,898	-25	2,799	2,901	102
4	Rate 10	189,164	170,899	-18,264	168,975	157,381	-11,594	171,670	167,443	-4,227	162,078	169,025	6,947

Notes:

2012 2012 Board-approved NAC is the AU target from the 2008 to 2012 IR period. Weather normalized at the Board-approved 55:45 2007 Weather Normal.

2013 2013 Target NAC corresponds to the 2013 Board-approved forecasted NAC at the Board-approved 50:50 2013 Weather Normal.

2014 2014 Target NAC corresponds to the actual 2012 NAC weather normalized at the Board-approved 50:50 2014 Weather Normal.

2015 2015 Target NAC corresponds to the actual 2013 NAC weather normalized at the Board-approved 50:50 2015 Weather Normal.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition (“VECC”)

Reference: Exhibit A, Tab 1, p.43

- a) What amount of the \$19.358 million in lower compressor equipment costs is related to the actual compressor (as opposed to labour and related costs)?
-

Response:

- a) Please see the response at Exhibit B.BOMA.8.d).

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition (“VECC”)

Reference: Exhibit A, Tab 2, Appendix A, Schedule 13

Please explain the main drivers for the increase in advertising expense in 2015 as compared to 2014 (and similar amounts in 2013).

Response:

The main drivers for the increase in advertising expense from 2014 to 2015 were:

- \$0.2 million Odour awareness campaign
- \$0.2 million CNG trucking pilot program

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition (“VECC”)

Reference: Exhibit A, Tab 3, p.8

- a) Please confirm that the allocation methodology of the Energy East Pipeline Consultation Costs is the same as that used in 2014 for IFRS costs (EB-2015-0010).

Response:

- a) Confirmed.