

April 30, 2015

Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto, ON  
M4P 1E4

Dear Ms. Walli:

**Re: EB-2015-0010 - Union Gas Limited - 2014 Disposition of Deferral Account Balances and 2014 Earnings Sharing Amount UPDATED Evidence**

Enclosed is the updated application and evidence submitted by Union Gas Limited (“Union”) concerning the final disposition and recovery of certain 2014 deferral account balances and earnings sharing amount.

As Union indicated in its application and evidence submitted on April 15, 2015, the actual variance between the aggregate Banked Gas Account (“BGA”) balances at the end of March relative to the planned BGA balance will be available late April. The actual variance between the aggregate BGA balances at the end of March relative to the planned BGA balance was 0.746 PJ below the planned BGA. Accordingly, please find attached Union’s updated (black-lined) evidence. Union has updated Exhibit A, Tab 1 Evidence, Exhibit A, Tab 1, Appendix A, Schedule 1, and Exhibit A, Tab 3 Evidence.

If you have any questions concerning this application and evidence please contact me at (519) 436-5476.

Yours truly,

*[Original Signed by]*

Chris Ripley  
Manager, Regulatory Applications

cc Crawford Smith (Torys)  
EB-2014-0271 Intervenors

April 15, 2015

Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto, ON  
M4P 1E4

Dear Ms. Walli:

**Re: EB-2015-0010 - Union Gas Limited - 2014 Disposition of Deferral Account Balances and 2014 Earnings Sharing Amount**

Enclosed is the application and evidence submitted by Union Gas Limited (“Union”) concerning the final disposition and recovery of certain 2014 deferral account balances and earnings sharing amount. In addition Union is requesting approval of a new Unaccounted for Gas Price Variance deferral account.

Union is proposing to dispose of spot gas purchased to manage weather and consumption variances in February and March of 2015 for Union South bundled direct purchase customers. Union is not proposing to dispose of the Unaccounted for Gas price variance as described in its April 1, 2015 Quarterly Rate Adjustment Mechanism (“QRAM”) until the disposition of its 2015 deferral account balances. Union is not proposing to dispose of DSM related deferral account balances in this proceeding. Union will file its DSM deferral account evidence in Q3, 2015.

The Application is supported by evidence which is outlined below:

**EXHIBIT A**

Tab 1	2014 Deferral Account Balances
Tab 2	2014 Utility Results and Earnings Sharing
Tab 3	Allocation and Disposition of 2014 Deferral Account Balances and 2014 Earnings Sharing Amount
Tab 4	Incremental Transportation Contracting Analysis and Annual Stakeholder Meeting
Tab 5	Gas Supply Memorandum
Tab 6	April 8, 2015 Stakeholder Presentation

Union proposes that the impacts which result from the disposition of 2014 deferral account balances and earnings sharing amount be implemented on October 1, 2015 to align with other rate changes implemented through the QRAM.

If you have any questions concerning this application and evidence please contact me at (519) 436-5476.

Yours truly,

*[Original Signed by]*

Chris Ripley  
Manager, Regulatory Applications

cc      Crawford Smith (Torys)  
         EB-2014-0271 Intervenors

**ONTARIO ENERGY BOARD**

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

**AND IN THE MATTER OF** an Application by Union Gas Limited for an order or orders clearing certain non-commodity related deferral accounts and sharing utility earnings pursuant to a Board-approved earnings sharing mechanism;

**APPLICATION**

1. Union Gas Limited (“Union”) is a business corporation, incorporated under the laws of Ontario, with its head office in the Municipality of Chatham-Kent.
2. Union conducts an integrated natural gas utility business that combines the operations of selling, distributing, transmitting and storing gas within the meaning of the *Ontario Energy Board Act, 1998* (the “Act”).
3. In EB-2013-0365, Union applied to the Ontario Energy Board (the “OEB”) for an order approving or fixing just and reasonable rates and other charges for the sale, distribution, storage and transmission of gas by Union effective January 1, 2014. The Board approved Union’s request. In doing so, the OEB approved the continuation of certain deferral accounts.
4. The approved Incentive Regulation Mechanism (“IRM”) provides for sharing if in any calendar year, Union’s actual utility return on equity (“ROE”) is more than 100 basis points over the 2013 Board-approved ROE of 8.93%.
5. Excess earnings between 100 basis points and 200 basis points would be shared 50/50 between Union and its customers. If, in any calendar year, Union’s actual ROE is more than

200 basis points over the 2013 Board-approved ROE of 8.93%, then such earnings in excess of 200 basis points would be shared 90/10 between customers and Union.

6. Union's 2014 actual utility earnings exceeded this threshold. The customer portion of earnings sharing is \$7.424 million.
7. Union applies for the:
  - a) approval of final balances for all 2014 deferral accounts as listed in Exhibit A, Tab 1, Appendix A, Schedule 1 and an order for final disposition of those balances;
  - b) approval of \$7.424 million as the customer portion of earnings sharing in 2014 and the proposed disposition of that amount to Union's customers; and,
  - c) approval of a new Unaccounted for Gas Price Variance Deferral Account No. 179-XXX effective January 1, 2015.
8. Union also applies to the OEB for such interim order or orders approving interim rates or other charges and accounting orders as may from time to time appear appropriate or necessary.
9. Union further applies to the Board for all necessary orders and directions concerning pre-hearing and hearing procedures for the determination of this application.
10. This application is supported by written evidence. This evidence may be amended from time to time as required by the OEB, or as circumstances may require.
11. The persons affected by this application are the customers resident or located in the municipalities, police villages and First Nations reserves served by Union, together with those to whom Union sells gas, or on whose behalf Union distributes, transmits or stores gas.

It is impractical to set out in this application the names and addresses of such persons because they are too numerous.

12. The address of service for Union is:

Union Gas Limited  
P.O. Box 2001  
50 Keil Drive North  
Chatham, Ontario  
N7M 5M1  
Attention: Chris Ripley  
Manager, Regulatory Applications  
  
Telephone: (519) 436-5476  
Fax: (519) 436-4641

- and -

Torys LLP  
Suite 3000, Maritime Life Tower  
P.O. Box 270  
Toronto-Dominion Centre  
Toronto, Ontario  
M5K 1N2  
Attention: Crawford Smith  
  
Telephone: (416) 865-8209  
Fax: (416) 865-7380

DATED: April 15, 2015

UNION GAS LIMITED

*[Original signed by]*

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Chris Ripley  
Manager, Regulatory Applications

**2014 DEFERRAL ACCOUNT BALANCES**

**2014 YEAR-END DEFERRAL ACCOUNT BALANCES**

Union has classified the deferral accounts approved by the Board for use in 2014 into three groups:

- a) Gas Supply accounts;
- b) Storage accounts; and,
- c) Other accounts.

The net balance in the above deferral accounts results in a \$9.625 million debit to ratepayers. This total includes balances as at December 31, 2014 plus winter 2014/2015 spot gas price variances related to Union South bundled direct purchase (“DP”) load balancing, as referenced in Union’s April 1, Quarterly Rate Adjustment Mechanism (“QRAM”) (EB-2015-0035). Union is not proposing to dispose of the Unaccounted for Gas (“UFG”) price variance in this application. Union will capture the UFG price variance in the new proposed UFG Price Variance Deferral Account (discussed at Exhibit A, Tab 1, page 39) in its 2015 deferrals and earnings sharing proceeding. Interest has been calculated on account balances according to the Board-approved accounting orders. The applicable short-term interest rate used was 1.47% for the months of January through December as prescribed by the Board in EB-2006-0117.

Exhibit A, Tab 1, Appendix A, Schedule 1 UPDATED provides a summary of the deferral account balances.

GAS SUPPLY DEFERRAL ACCOUNTS

Account No. 179-107 Spot Gas Variance Account

Union is seeking disposition of the \$1.271 million credit balance in the Spot Gas Variance Account for spot gas purchased to manage weather and consumption variances in February and March for Union South bundled DP customers.

*Spot Purchases on behalf of Union South Bundled Direct Purchase Customers*

For Union South, Union retains load balancing obligations for weather variances relative to the February 28 inventory checkpoint (for variances after the checkpoint volumes were established) and March weather and consumption variances for bundled DP customers. Union South bundled DP customers have a contractual obligation to meet their defined checkpoint balances at September 30 and February 28, as well as to balance annually at contract renewal. Specifically, the February 28 checkpoint ensures that Union South bundled DP customers do not have a Banked Gas Account (“BGA”) balance at the end of February that is less than their contractual checkpoint. It is critical that bundled DP customers meet their contractual checkpoint obligation as their volumes are a significant portion of Union’s in-franchise demands and the February 28 checkpoint helps to ensure Union can meet its winter design day requirements.



1 Union's load balancing obligation is required to ensure there is sufficient gas in storage at  
2 March 31 to maintain system integrity. In other words, Union's load balancing  
3 obligations, which may require spot gas purchases, remain despite the contractual  
4 obligations of Union South bundled DP customers to meet defined checkpoint balances at  
5 February 28.

6  
7 Union South load balancing costs included in the Spot Gas Variance Account reflect spot  
8 gas purchases for Union South that would have otherwise been purchased in the  
9 following summer, but were required to maintain system integrity and deliverability for  
10 Union South bundled DP customers. The incremental gas purchased by Union and  
11 consumed by bundled DP customers in February and March will be returned to Union by  
12 DP customers in the summer, prior to their contractual year end. In this circumstance,  
13 Union reduces planned summer purchases it would normally have made on behalf of the  
14 sales service customers, in order to accept the incremental summer DP deliveries.

15  
16 While Union South bundled DP customers do not have a contractual obligation to meet  
17 the planned BGA balance as of March 31, 2015, Union advised Union South bundled DP  
18 customers on February 23, 2015 that actual weather had been significantly colder than  
19 what had been forecast for purposes of the February checkpoint and was also forecast to  
20 be significantly colder than normal through March. Union also indicated that if a  
21 customer was concerned that they might see a deferral account disposition related to

1 incremental consumption subsequent to the February checkpoint similar to last year, they  
2 could consider options for gas deliveries in the remainder of the winter so that their actual  
3 March 31 BGA balance was not less than planned.

4  
5 Unlike the winter of 2013/2014, Union South bundled DP customers were more proactive  
6 in their balancing activity this past winter. Many of these customers closely monitored  
7 their DP status reports and delivered incremental gas in the month following when the  
8 incremental consumption took place. In addition to meeting their February 28 checkpoint  
9 requirement, a number of bundled DP customers also proactively delivered incremental  
10 gas in March to ensure their BGA balance did not go below the March 31 planned level.

11  
12 At the time of the April 1, 2015 QRAM filing, Union forecasted a requirement of 1.3 PJ  
13 of spot gas for Union South bundled DP load balancing. Union also indicated that actual  
14 activity at the end of February and early March suggested that the variance between  
15 actual aggregate BGA balances at the end of March relative to the planned BGA balance  
16 could be less than 1.3 PJ<sup>1</sup>. The actual variance between the aggregate BGA balances at  
17 the end of March relative to the planned BGA balance was 0.746 PJ below the planned  
18 BGA. This variance was the result of 374 bundled DP contracts being 1.761 PJ below  
19 the planned BGA, offset in part by 194 bundled DP contracts being 1.015 PJ above the  
20 planned BGA at March 31.

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<sup>1</sup> EB-2015-0035, Tab 1, page 12.

1 The deferral impact associated with the projected 0.746 PJ of spot gas required by Union  
2 South bundled DP customers is a credit of \$1.271 million. This amount reflects the price  
3 variance between actual average spot gas costs and Union's Ontario Landed Reference  
4 Price. A forecast cost of \$0.320 million as shown at Table 1, line 5 (calculated as the  
5 summer/winter differential of \$0.429/GJ multiplied by 0.746 PJ) will be collected from  
6 Union South bundled DP customers for load balancing costs based on the projected BGA  
7 variance at March 31, 2015. As indicated in the Board's EB-2014-0145 Decision,  
8 applying the summer/winter price differential to the cost of the gas purchased ensures that  
9 sales service customers do not bear the costs related to relatively more expensive  
10 incremental winter purchases.<sup>2</sup>

11  
12 Based on a projected BGA variance for Union South bundled DP customers at March 31,  
13 2015, Union is proposing to charge \$0.320 million to the 374 Union South bundled DP  
14 customers who were below the planned BGA balance and drove the need for incremental  
15 spot purchases. The resulting unit rate is \$0.1816/GJ calculated as the total charge of  
16 \$0.320 million divided by the total volume below the planned BGA of 1.761 PJ. This  
17 rate will be applied to all contracts that were below the planned BGA balance. The actual  
18 spot gas requirement was updated based on Union South DP customer's March 31, 2015  
19 DP Status Report. The DP Status report is prepared each month and sent to every Union

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<sup>2</sup> EB-2014-0145, Decision and Order, page 6.

1 South bundled DP contract holder to communicate their current and forecasted DP  
2 delivery and consumption activity.  
3  
4 Consequently, a credit of \$1.591 million (Table 1, line 6) would be disposed of to Union  
5 South sales services customers. The credit attributable to Union South sales service  
6 customers is the result of the credit related to the spot gas purchase of \$1.271 million plus  
7 \$0.320 million to be recovered as load balancing costs from Union South bundled DP  
8 customers.  
9  
10 The calculation of the spot gas deferral amounts attributable to Union South bundled DP  
11 customers based on a projected BGA variance of 0.746 PJ is provided in Table 1.  
12

Table 1  
Union South Bundled DP Spot Gas Costs

<b>Line No.</b>	<b>Spot Gas Purchase – 0.746 PJ</b>	<b>Average unit price (\$/GJ) (a)</b>	<b>Total Impact (\$ million) (b)= (a) x 0.746</b>
1	Weighted Average Price of Spot Purchase	\$4.013	\$2.994
2	Ontario Landed Reference Price	\$5.716	\$4.265
3	Union South Spot Gas Impact	(\$1.703)	(\$1.271)
4	Forecast Summer Cost	\$3.583	\$2.673
5	Weighted Average Summer/Winter Differential (load balancing costs) (line 1 less line 4)	\$0.429	\$0.320
6	Spot Costs (Credit) (line 4 less line 2)	(\$2.133)	(\$1.591)

1 Account No. 179-108 Unabsorbed Demand Costs (“UDC”)

2 The balance in the UDC Variance Account is not prospectively recovered or refunded as  
3 part of the approved QRAM. It has therefore been included in this evidence. The credit  
4 balance of \$5.629 million in the UDC variance account is the difference between the  
5 actual UDC incurred by Union and the amount of UDC collected in rates.

6  
7 *UDC Recovery in Rates*

8 To meet customer demands across Union’s franchise area and to meet the targeted  
9 (planned) storage inventory levels at October 31, Union’s 2014 Board-approved rates  
10 included UDC of 6.3 PJ in Union North and 0 PJ in Union South. The UDC included in  
11 Union’s 2014 Board-approved rates reflects the approved Normalized Average  
12 Consumption (“NAC”) adjustment for Union North as described in evidence at EB-2013-  
13 0365, Exhibit A, Tab 1, page 10 and further articulated in the Rate Order, Working  
14 Papers, Schedule 12, page 2. As shown at lines 6 and 17 of Working Papers, Schedule  
15 12, page 2, the total NAC adjustment for Rate 01 and Rate 10 customers was 42,542  
16  $10^3\text{m}^3$  and 20,643  $10^3\text{m}^3$  respectively. This equates to a total increase in demand of 2.4  
17 PJ and a corresponding reduction in the UDC for Union North. Union’s 2013 Board-  
18 approved rates included UDC of 8.7 PJ for Union North. Union’s 2014 Board-approved  
19 rates reflect UDC of 6.3 PJ, or 2.4 PJ less than 2013 Board-approved rates as a result of  
20 the approved NAC adjustment.

1 In Union North, UDC is part of planned operations due to the requirement to hold  
2 sufficient TransCanada firm transportation (“FT”) capacity and other firm assets (both  
3 storage and transportation related) to meet both design day requirements as well as annual  
4 demands. Assets required to meet design day demands are greater than what is required to  
5 meet average daily demand, and therefore results in planned unutilized pipeline capacity  
6 and UDC. In a warmer than normal year, Union may incur UDC in Union South to  
7 rebalance supply with lower demands. Union manages its North and South transport  
8 portfolios on an integrated basis and will determine the pipeline to leave unutilized, if  
9 necessary, based on the least cost option. Consequently, UDC is managed on an  
10 integrated basis.

11  
12 Union collected \$5.338 million in rates for UDC and recorded an associated interest  
13 credit of \$0.061 million. Actual UDC cost in 2014 was a credit of \$0.230 million related  
14 to a change in contracted capacity on Centra Transmission Holdings and Centra Pipeline  
15 Minnesota (“CTHI / CPMI”). This results in total credit in the UDC variance account of  
16 \$5.629 million. The UDC costs and the credit related to a change in contracted capacity  
17 are described in more detail below.

18  
19 Table 2 provides the derivation of the UDC variance account balances by operations area.  
20  
21

Table 2  
UDC Variance Account by Operational Area

Line No.	Particulars (\$000's)	Union North	Union South	Total Franchise Area
1	UDC Collected in Rates	(5,338)	0	(5,338)
2	UDC Costs Incurred	(230)	0	(230)
3	Variance (line 2 - line 1)	(5,568)	0	(5,568)
4	Interest	(61)	0	(61)
5	(Credit) / Debit to Operations Area	(5,629)	0	(5,629)

1

2 A description of each item follows:

3

4 *UDC Collected in Rates*

5 2014 Board-approved rates include \$4.767 million associated with planned UDC in

6 Union North and \$0.0 million associated with planned UDC in Union South. The total

7 cost of UDC in rates assumes TransCanada tolls effective July 1, 2013.

8

9 On an actual basis in 2014, Union recovered \$5.338 million in Union North and \$0.0

10 million in Union South. The higher than expected recovery is primarily due to higher

11 than forecast demand of 139,536 10<sup>3</sup>m<sup>3</sup> in Union North.

12

13 *UDC Costs Incurred*

14 In 2014, Union did not have any unutilized capacity or associated UDC costs. The level

15 of UDC experienced in 2014 was less than planned largely due to colder than normal

1 weather and higher than forecast use per customer experienced in 2014. Union has  
2 reflected a credit of \$0.230 million in the UDC Variance Account to capture a volume  
3 variance related to capacity contracted with CTHI / CPMI. In Union North, Union  
4 contracts for capacity on CTHI / CPMI to move gas into Union's Manitoba Delivery  
5 Area ("MDA"). Union's MDA is connected to the TransCanada Mainline at the Spruce  
6 interconnect in the TransCanada Centra MDA by these two pipelines. In Union's 2013  
7 Cost of Service proceeding (EB-2011-0210), Union reflected the then contracted capacity  
8 on CTHI / CPMI of 8,473 GJ/day. Union has since reduced the contracted capacity on  
9 these pipelines to 5,572 GJ/day for a reduction of 2,143 GJ/day effective November 1,  
10 2012 and a further reduction of 758 GJ/day effective November 1, 2014. The reduction  
11 in costs for this contract is \$0.230 million in 2014 and this amount has been recorded in  
12 the UDC variance account to pass through the benefit of this contract change to Union  
13 North sales service and bundled DP customers. The credit will be recorded on an  
14 ongoing basis each month until such time that Union can reflect the updated volumes in  
15 rates.

16  
17 *Interest*

18 Interest associated with UDC amounted to a credit of \$0.061 million for Union North and  
19 \$0 for Union South for a net credit of \$0.061 million.

20

21



1 *(Credit)/Debit to Operations areas*

2 The UDC variance account has a net total credit balance of \$5.629 million. The balance  
3 applicable to customers in Union North is a credit of \$5.629 million, while there is no  
4 impact to customers in Union South.

5  
6 Account No. 179-128 Gas Supply Review Consultant Cost

7 There is no balance in this deferral account. Union will request closure of this account as  
8 part of its 2016 Rates application.

9  
10 Account No. 179-131 Upstream Transportation Optimization

11 The Upstream Transportation Optimization deferral account was approved by the Board  
12 in its EB-2011-0210 Decision to capture the variance between 90% of the net revenues  
13 from optimization activities and the amount refunded to ratepayers in rates. The balance  
14 in this deferral account is a debit of \$9.883 million.

15  
16 In setting rates for 2014, the Board approved a forecast of optimization revenue of  
17 \$14.918 million. Ninety percent of that amount, or \$13.426 million, was credited to  
18 ratepayers in Board-approved rates<sup>3</sup>. On an actual basis, consistent with the method  
19 approved in its EB-2011-0210 Decision and Rate Order, Union credited \$17.010 million  
20 in rates to ratepayers during 2014, \$3.584 million greater than the Board-approved

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<sup>3</sup> EB-2011-0210, Draft Rate Order, Working Papers, Schedule 43.

1 amount of \$13.426 million. The credit is due to Union's actual sales service volumes  
2 exceeding the forecast sales service volumes in rates.<sup>4</sup>

3  
4 Union earned \$7.919 million in net revenues from upstream transportation optimization  
5 during 2014. Per the approved sharing methodology, 90% of this net revenue, or \$7.127  
6 million, is to be credited to customers. As stated above, \$17.010 million has already been  
7 credited through rates; therefore, \$9.883 million (\$7.127 million less \$17.010 million) is  
8 to be collected from ratepayers through this deferral account disposition.

9  
10 Exhibit A, Tab 1, Appendix A, Schedule 2 provides a summary of the calculation of the  
11 amount in this deferral account. Union's 2014 actual Upstream Transportation  
12 Optimization revenue is lower than 2013 Board-approved revenue primarily because of  
13 the elimination of the TransCanada FT-RAM program effective July 1, 2013.

14  
15 STORAGE DEFERRAL ACCOUNTS

16 Account No. 179-70 Short-Term Storage and Other Balancing Services

17 The Short-Term Storage and Other Balancing Services deferral account includes  
18 revenues from C1 Off-Peak Storage, Gas Loans, Enbridge LBA, Supplemental Balancing  
19 Service and C1 Short-Term Firm Peak Storage. The net revenue for Short-Term Storage

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<sup>4</sup> EB-2011-0210, Decision and Rate Order, p.16.

1 and Other Balancing Services is determined by deducting the costs incurred to provide  
2 service from the gross revenue.

3  
4 There is a debit balance in the Short-Term Storage and Other Balancing Services deferral  
5 account of \$3.265 million. The balance is calculated by comparing \$1.286 million (90%  
6 of the actual 2014 Short-Term Storage and Other Balancing Services net revenue of  
7 \$1.429 million) to the net revenue included in rates of \$4.551 million in the EB-2011-  
8 0210 Rate Order. The details of the balance are found at Exhibit A, Tab 1, Appendix A,  
9 Schedule 3.

10  
11 Actual 2014 revenues from C1 Off Peak Storage, Gas Loans and all other Balancing  
12 services of \$1.283 million were \$1.217 million lower than the 2013 Board-approved  
13 forecast of \$2.500 million. The main driver for lower revenues continues to be the  
14 impact of shale gas production causing less seasonal volatility of natural gas prices.

15  
16 The C1 Short-Term Firm Peak Storage revenues of \$3.235 million were \$4.648 million  
17 lower than the 2013 Board-approved forecast of \$7.883 million. The difference between  
18 the Board-approved forecast revenue for 2013 and the actual revenue in 2014 was  
19 impacted by a decrease in excess utility storage capacity available for sale and by a lower  
20 market value for Short-Term Peak Storage. Actual utility requirements were higher in  
21 2014 which reduced the amount available for sale as C1 Short-Term Peak Storage for

1 2014/2015 winter (6.4 PJ) compared to the 2013 Board-approved forecast (11.3 PJ).

2 Union's customers received the value of storage directly through the use of the storage  
3 space, rather than indirectly, through sales of short-term storage.

4  
5 The increase in the actual utility storage requirement of 4.9 PJ in 2014 (resulting in a  
6 decrease in the C1 Short-Term Peak Storage available for sale from 11.3 PJ to 6.4 PJ) is a  
7 result of increases in consumption in both the general service and the contract markets.

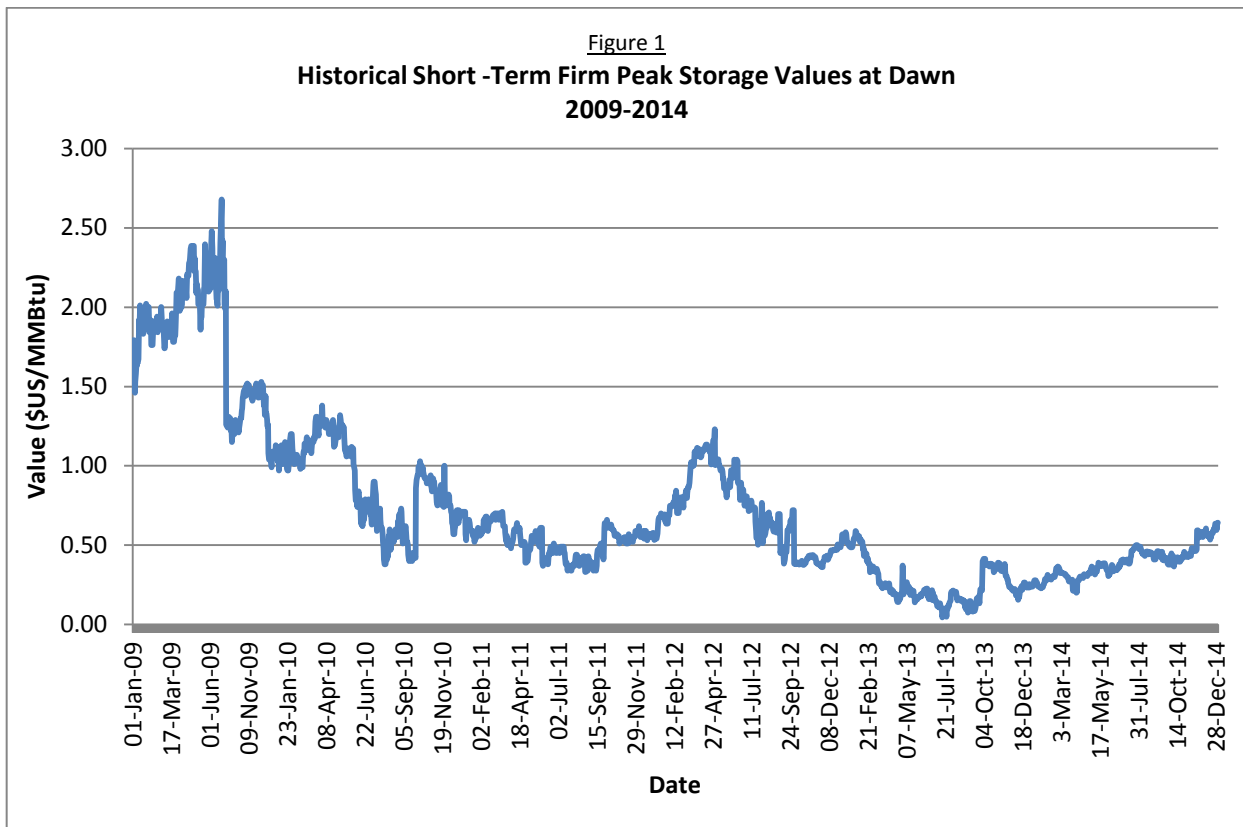
8 The general service market required 2.9 PJ of additional storage in 2014 over the Board-  
9 approved amount due to an increased requirement based on weather normalized normal  
10 average consumption of 1.1 PJ<sup>5</sup> with the remaining 1.8 PJ of storage required due to  
11 growth in the number of billed customers. The contract market required 2.0 PJ of  
12 additional storage over the Board-approved amount due to increased production activity  
13 by industrial customers and continued growth in the greenhouse market. The storage  
14 requirement for both the general service and contract markets was calculated using the  
15 Board-approved aggregate excess methodology.

16  
17 The 2013 Board-approved forecast implied an annual average value of \$0.70/GJ (\$7.883  
18 million/11.3 PJ), and the actual average annual C1 Short-Term Peak Storage value in  
19 2014 was \$0.50/GJ (\$3.235 million/6.4 PJ). The market value for short-term peak

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<sup>5</sup> EB-2015-0010, Exhibit A, Tab 1, Table 8.

1 storage has declined since the 2013 Board-approved forecast filed in March 2012, as  
2 shown at Figure 1.



3  
4 Non-Utility Balances for 2014 Storage Encroachment Payment

5 In its EB-2011-0210 Decision, the Board directed Union to file a report similar to that  
6 ordered in EB-2011-0038 to monitor the inventory related to non-utility storage  
7 operations.

8

9 Exhibit A, Tab 1, Appendix A, Schedule 4 shows the non-utility balances for October and  
10 November of 2014.

11

1 During the 2014 injection season the non-utility storage balance peaked on October 29 at  
2 99% of available space with a balance of 81.9 PJ compared to available space of 83.2 PJ.  
3 At October 31, 2014 (the date to which Union manages its storage balance), the non-  
4 utility balance was 98% of available space and stayed below the total non-utility available  
5 space for the rest of 2014.

6  
7 During EB-2011-0210, the Board further ordered Union to file a calculation for a storage  
8 encroachment payment from Union's non-utility business to Union's utility business, if  
9 Union's non-utility business encroached on Union's utility space.

10  
11 There was no encroachment of utility space in 2014 and therefore no calculation applies.

12  
13 Sale of Non-Utility Storage Space

14 Union prioritizes the sale of its utility storage ahead of its sales of short-term non-utility  
15 and allocates short-term peak storage margins as directed by the Board in EB-2011-0210.  
16 Margins from Short-Term Peak Storage services are proportionately split between the  
17 utility and non-utility customers based on the utility and non-utility share of the total  
18 quantity of short-term peak storage sold each calendar year. Short-term peak sales include  
19 any sale of storage space for a term less than two years.

1 In 2014, Union sold a total of 6.9 PJ of short-term peak storage. Of this amount, 6.4 PJ  
2 was excess utility space, calculated by deducting 93.6 PJ of utility requirement (from  
3 Union's Gas Supply Plan) from the total 100 PJ of utility storage. The remaining 0.5 PJ  
4 of short-term peak storage sold were therefore from non-utility space.

5  
6 Total revenue from the sale of short-term peak storage in 2014 is \$3.458 million. Of this,  
7 \$3.235 million is from the sale of excess utility space, and \$0.223 million is from the  
8 short-term peak storage sale of non-utility space.

9  
10 Details of the above sales are reflected at Exhibit A, Tab 1, Appendix A, Schedule 5.

11  
12 OTHER DEFERRAL ACCOUNTS

13 Account No. 179-103 Unbundled Services Unauthorized Storage Overrun

14 There is no balance in this deferral account. The account was created in accordance with  
15 the Board's Decision in the RP-1999-0017 proceeding to record any unauthorized storage  
16 overrun charges incurred by customers electing unbundled service.

17  
18 Account No. 179-112 Gas Distribution Access Rule ("GDAR") Costs

19 The GDAR deferral account records the difference between the actual costs required to  
20 implement the appropriate process and system changes to achieve compliance with  
21 GDAR and the costs included in rates as approved by the Board.

1 The GDAR capital costs are made up of the costs associated with three separate Notice of  
2 Amendments to a Rule:

- 3 1. On October 14, 2011, the Board issued a Notice of Amendment to a Rule –  
4 Residential Customer Service Amendments to the Gas Distribution Access  
5 Rule under docket number EB-2010-0280. Union incurred \$1.475 million in  
6 capital costs in 2011 and 2012 to implement the amendments to GDAR.
- 7 2. On September 6, 2012, the Board issued a Notice of Amendment to a Rule –  
8 Eligible Low-Income Customer Service Policy Amendments to the GDAR,  
9 also under docket number EB-2010-0280. Union incurred \$0.278 million in  
10 capital costs in 2012 to implement the Low Income Amendments to the  
11 GDAR.
- 12 3. On March 28, 2013 the Board issued a Notice of Amendment to a Rule –  
13 Amendments to the Natural Gas Reporting and Record Keeping Requirements  
14 in Relation to Residential and Low Income Customer Service Policies, also  
15 under docket number EB-2010-0280. Union incurred \$0.468 million in  
16 capital costs in 2013 to implement the amendments to GDAR.

17  
18 The capital costs relating to the three Amendments to a Rule discussed above can be  
19 found at Table 3 below. The costs include those associated with incremental internal  
20 resources and expenses as well as Contractor services. Union Gas' retail CIS system,  
21 Banner, is an outsourced solution provided by Vertex Business Services. Vertex is



1 responsible for the sustainment and operation of the system as well as any required  
2 infrastructure changes. All system changes are completed by Vertex and charged to  
3 Union.

4 Table 3  
5 GDAR Costs

Line No.	Particulars (\$000's)	Residential Customer Service Amendments (2011, 2012)	Low Income Amendments (2012)	Reporting and Record Keeping Requirement Amendments (2013)	Total Capital Spend
1	Resources (Salary & Expenses)	345	20	9	374
2	Contractor Services	1130	258	459	1,847
3	<b>Total Costs</b>	\$1,475	\$278	\$468	\$2,221

6  
7 Consistent with Union's 2013 deferrals disposition evidence (EB-2014-0145), Union  
8 replaced the capital costs with the annual revenue requirement related to the capital costs  
9 as outlined in Table 4 below. Accordingly, the 2014 GDAR deferral account has a debit  
10 balance of \$0.750 million. The revenue requirement will continue to be included in the  
11 respective future deferral disposition proceedings.

12  
13  
14  
15

Table 4  
GDAR Costs by Year

Line No.	Particulars (\$000's)	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>TOTAL</u>
1	Depreciation	219	497	555	555	336	59	2,221
2	Interest	80	82	57	31	10	1	261
3	Return	51	55	38	21	7	1	173
4	Current Tax	(156)	(141)	100	153	90	15	61
5	<b>TOTAL</b>	<b>\$194</b>	<b>\$493</b>	<b>\$750</b>	<b>\$760</b>	<b>\$443</b>	<b>\$76</b>	<b>\$2,716</b>

Account No. 179-117 Carbon Dioxide Offset Credits

There is no balance in this deferral account. The account was created in accordance with the Board's Decision in the EB-2006-0021 proceeding to record the amounts representing proceeds from the sale of or other dealings in carbon dioxide offset credits earned as a result of Union's DSM activities.

Account No. 179-118 Average Use Per Customer

There is no balance in this deferral account. Union will request closure of this account in its 2016 Rates proceeding.

Account No. 179-120 International Financial Reporting Standards ("IFRS") Conversion Costs

In accordance with the Board-approved Settlement Agreement in EB-2010-0039, Union agreed to remove from the deferral account the capital costs associated with upgrading Union's accounting system in order to report results under IFRS. These capital costs were

1 replaced by the annual revenue requirement related to those capital costs as outlined in  
2 Table 5, and are to be included in the respective future deferral account disposition  
3 proceedings. Accordingly, the 2014 IFRS Conversion Costs deferral account has a debit  
4 balance of \$0.244 million.

5 Table 5  
6 IFRS Conversion Costs by Year

Line No.	Particulars (\$ millions)	2008 (a)	2009 (b)	2010 (c)	2011 (d)	2012 (e)	2013 (f)	2014 (g)	Total (h)
1	Proposed by Union	1.918	2.071	-	-	-	-	-	3.989
2	Less: Capital expenditures	0.953	0.459						1.412
3	O&M	0.965	1.612	-	-	-	-	-	2.577
4	Revenue requirement	-	-	0.124	0.335	0.538	0.505	0.244	1.747
5	Total	0.965	1.612	0.124	0.335	0.538	0.505	<b>0.244</b>	4.324

7  
8  
9 Account No. 179-123 Conservation Demand Management (“CDM”)

10 In its EB-2010-0055 Decision and Order which granted approval for Union’s 2011 DSM  
11 Plan, the Board ordered Union to establish a deferral account to track revenues associated  
12 with CDM activities, to be shared 50/50 between Union and ratepayers. The Board  
13 approved the accounting order for Union’s CDM deferral account in Union’s 2011 Rates  
14 application (EB-2010-0148). The balance in the 2014 CDM deferral account is a credit of

1 \$0.253 million, which includes 50% of total net revenues of \$0.505 million, plus interest  
2 of \$0.001 million.

3  
4 In 2014 Union Gas delivered four CDM programs on behalf of various electric local  
5 distribution companies (“LDCs”) including:

- 6 1) High Performance New Construction Generation 2 (“HPNC2”);
- 7 2) Key Account Management (“KAM”);
- 8 3) Commercial Conservation Account Management (“CCAM”); and,
- 9 4) Home Assistance Program (“HAP”) for Low Income Customers.

10  
11 HPNC2 is an Ontario Power Authority (“OPA”)<sup>6</sup>-funded program to encourage builders  
12 of commercial, industrial, institutional and agricultural facilities to reduce electricity  
13 demand and/or consumption by designing and building new buildings or major  
14 renovations with higher energy efficient equipment and systems (i.e. lighting, space  
15 cooling, ventilation etc.) than required by the building code. Union provides sales and  
16 technical support services to Enbridge in their delivery of HPNC2 for designated LDCs  
17 within Union’s franchise area. Union contracted with Enbridge to deliver this program on  
18 behalf of 15 electric LDCs in 2014.

19  

---

<sup>6</sup> On January 1, 2015 the OPA was merged into the Independent Electricity System Operator (IESO).

1 KAM is an OPA-funded CDM program to assist major industrial customers (average  
2 monthly peak demand greater than 5MW) develop capital projects that support industrial  
3 energy management and electricity efficiency. Union contracted with four electric LDCs,  
4 (Hydro One Networks Inc., Veridian Connections, Utilities Kingston and Hydro One  
5 Brampton) to deliver the KAM services in 2014.

6  
7 The CCAM program supports capital investments in equipment that reduces electrical  
8 demand and energy consumption for commercial and industrial electricity customers with  
9 average monthly electricity demand of less than 5MW. Union contracted with Hydro One  
10 Networks Inc. to deliver the CCAM program in their service area in 2014.

11  
12 The HAP is an OPA-funded program to offer free installation of energy efficiency  
13 measures to qualifying low-income households to reduce electricity and peak demand  
14 savings. Union contracted with Halton Hills Hydro and Hydro Burlington to deliver this  
15 program in their service area in 2014.

16  
17 Table 6 below shows the CDM net revenues for 2014 by program.

18  
19  
20  
21

1

Table 6  
2014 CDM Net Revenues by Program

<u>Line</u> <u>No.</u>	<u>Particulars (\$000's)</u>	<u>HPNC</u>	<u>KAM</u>	<u>CCAM</u>	<u>HAP</u>	<u>Total</u>
1	Revenues	356	887	1,056	282	2,581
2	Costs	<u>221</u>	<u>664</u>	<u>901</u>	<u>290</u>	<u>2,076</u>
3	Net Revenues	135	223	155	(8)	<u><b>\$505</b></u>
					50% to ratepayer	\$252
					50% to shareholder	\$252

2

3 Account No. 179-129 Preparation of Audited Utility Financial Statements

4 There is no balance in this deferral account. Union will request closure of this account as  
5 part of its 2016 Rates application.

6

7 Account No. 179-133 Normalized Average Consumption

8 The purpose of the NAC deferral account is to record the variance in delivery revenue  
9 and storage revenue and costs resulting from the difference between the forecast NAC  
10 included in Board-approved rates and the actual NAC for general service rate classes  
11 Rate M1, Rate M2, Rate 01 and Rate 10. As described in EB-2014-0145 (Union's 2013  
12 deferral account disposition proceeding), including the revenue from storage rates in the  
13 NAC deferral account requires Union to include the storage-related costs associated with  
14 the difference in forecast and actual NAC.

15

1 For 2014, the balance in the NAC deferral is a credit to ratepayers of \$1.568 million,  
2 offset by interest of \$0.014 million. As the NAC deferral is tracked on a monthly basis,  
3 and for the majority of the year the NAC deferral was a debit from ratepayers, the  
4 cumulative interest for the year is a charge to customers.

5  
6 The NAC deferral account follows the methodology agreed to by parties in EB-2013-  
7 0202 (Union's 2014 to 2018 IRM Settlement Agreement) and as subsequently modified  
8 in EB-2014-0271 (Union's 2015 Rates proceeding). Specifically, in EB-2014-0271  
9 parties agreed that a NAC volume adjustment for Union North gas supply transportation  
10 rates was not required given Y-factor treatment for the upstream transportation costs  
11 recovered in these rates.

12  
13 Given that 99.8% of the costs recovered in Union North gas supply transportation rates  
14 are upstream transportation costs, any margin variance related to the variance between  
15 forecast and actual NAC was deemed to be immaterial. Accordingly, there is no NAC-  
16 related margin associated with Union North gas supply transportation rates included in  
17 the calculation of the deferral account balance.

18  
19 Forecast and Actual NAC

20 The 2014 forecast NAC for each rate class was determined in EB-2013-0202 and  
21 approved by the Board in Union's 2014 Rates proceeding (EB-2013-0365). The 2012

actual NAC, weather normalized using the 2014 weather normal was used to determine the 2014 forecast NAC. Setting the 2014 forecast NAC based on the 2012 actual NAC recognizes that over the two year span to the current year, any saved volumes and associated lost revenues due to Demand Side Management (“DSM”) will be captured by the variance between the target and the actual consumption. This is because the DSM saved volumes are included within the actual reported consumption.

The 2014 actual NAC for each rate class is weather normalized using the 2014 weather normal, which is based on the Board-approved 50:50 blended weather methodology that incorporates both the 30-year average and 20-year declining trend estimates of annual heating degree-days.

Table 7 provides the NAC deferral account balances by rate class.

Table 7  
2014 NAC Deferral Account: \$000s

	<u>Rate 01</u>	<u>Rate 10</u>	<u>Rate M1</u>	<u>Rate M2</u>	<u>All Rates</u>
Delivery Revenue Balances	(738)	(563)	83	(570)	(1,788)
Storage Revenue Balances	(245)	(228)	28	(109)	(553)
Storage Cost Balances	26	18	1,095	(365)	774
Interest	3	(3)	11	2	14
<b>Total NAC Deferral Balance</b>	<b>(954)</b>	<b>(776)</b>	<b>1,217</b>	<b>(1,041)</b>	<b>(1,554)</b>

The detailed calculation of the NAC deferral account balance can be found at Exhibit A, Tab 1, Schedule 6.



1    Delivery and Storage Revenues

2    The deferral account balance is calculated by multiplying the variance between the  
3    weather normalized forecast NAC and weather normalized actual NAC by the 2013  
4    Board-approved number of customers and 2014 Board-approved delivery and storage  
5    rates for each general service rate class. A credit balance in the NAC deferral account  
6    reflects that the actual NAC is greater than the forecast NAC, while a debit balance in the  
7    NAC deferral reflects that the actual NAC is less than the forecast NAC.

8  
9    Storage Costs

10   The storage costs recognize that variances between the 2014 forecast and 2014 actual  
11   NAC change the storage requirements for each general service rate class. As Union's  
12   Board-approved storage rates during IRM are not updated to reflect changes in storage  
13   requirements due to NAC variances, Union must capture the NAC-related change in  
14   storage costs in the NAC deferral account.

15  
16   To determine the change in storage requirements for each general service rate class due to  
17   NAC variances, Union calculated the NAC volume variance between its 2014/2015 gas  
18   supply plan and 2013 Board-approved volumes. The 2014/2015 gas supply plan volumes  
19   represent the April 1, 2014 to March 31, 2015 period, which are used to determine the  
20   storage requirements for general service rate classes effective November 1, 2014.

21

Using the Board-approved aggregate excess methodology, Union calculated the change in storage requirements for each general service rate classes due to variances in NAC. Please see Table 8 below.

<u>Table 8</u>			
<u>Change in General Service Storage Requirements from 2013 Board-approved</u>			
<u>(Based on weather normalized NAC)</u>			
	(PJ)		(PJ)
Rate M1	1.50	Rate 01	0.03
Rate M2	(0.50)	Rate 10	0.02
Total South	<u>1.00</u>	Total North	<u>0.05</u>

The increased storage requirement related to the changes in NAC has shifted storage costs from excess utility to general service rate classes.

The increased storage activity also increased storage deliverability costs, the commodity-related costs at Dawn, the variable delivery/redelivery costs for Union North on the Dawn-Parkway system, and third party storage costs. Filling the additional storage has increased the inventory carrying costs.

For Rate M1, actual 2014 NAC is less than the forecast 2014 NAC due to lower annual consumption as a result of energy efficiencies. As shown in Table 7 above, this results in a delivery and storage revenue charge of \$0.111 million (\$0.083 million and \$0.028 million respectively). In addition, the NAC decrease occurred in the summer months,

1 which increases the Rate M1 storage requirement by 1.5 PJ. Accordingly, Union must  
2 recover an additional \$1.095 million (Table 7, line 3) to recognize the increase in Rate  
3 M1 storage requirements.

4  
5 For Rate M2, actual 2014 NAC is greater than the forecast 2014 NAC as a result of the  
6 rate class customer mix and larger customers entering the rate class. As shown in Table 7  
7 above, this results in a delivery and storage revenue credit of \$0.679 million (\$0.570  
8 million and \$0.109 million respectively). In addition, the NAC increase occurred in the  
9 summer months, which decreases the Rate M2 storage requirement by 0.5 PJ.

10 Accordingly, Union must refund an additional \$0.365 million (Table 7, line 3) to  
11 recognize the decrease in Rate M2 storage requirements.

12  
13 For Rate 01, actual 2014 NAC is greater than the forecast 2014 NAC due to higher  
14 consumption by residential customers. As shown in Table 7 above, this results in a  
15 delivery and storage revenue credit of \$0.983 million (\$0.738 million and \$0.245 million  
16 respectively). In Rate 01, the NAC increase occurred in the winter months, which  
17 increases the storage requirement by 0.03 PJ. Accordingly, Union must recover \$0.026  
18 million (Table 7, line 3) to recognize the increase in Rate 01 storage requirements.

19  
20 For Rate 10, actual 2014 NAC is greater than the forecast 2014 NAC as a result of large  
21 customers entering the rate class and a decline in total number of customers. As shown in

1 Table 7 above, this results in a delivery and storage revenue credit of \$0.791 million  
2 (\$0.563 million and \$0.228 million respectively). In Rate 10, the NAC increase occurred  
3 in the winter months, which increases the storage requirement by 0.02 PJ. Accordingly,  
4 Union must recover \$0.018 million (Table 7, line 3) to recognize the increase in Rate 10  
5 storage requirements.

6  
7 Account No. 179-134 Tax Variance Deferral Account

8 There is no balance in this deferral account. The establishment of the Tax Variance  
9 Deferral Account was approved through the EB-2013-0202 Settlement Agreement. The  
10 purpose of this account is to record 50% of the variance in costs resulting from the  
11 difference between the actual tax rates and the approved tax rates included in rates as  
12 approved by the Board. Union's income tax rate increased from 25.50% (2013 Board-  
13 approved forecast tax rate) to 26.50% (actual income tax rate). For 2014, the calculation  
14 of the tax rate variance between Board-approved and the actual income tax rate was  
15 \$1.695 million. The ratepayer portion of the income tax rate increase is \$0.848 million  
16 (50% of \$1.695 million). This variance was included in 2014 rates as approved by the  
17 Board in its EB-2013-0365 Decision.<sup>7</sup>

18  
19  
20  

---

<sup>7</sup> EB-2013-0365, Rate Order, Working Papers, Schedule 17.

1 Account No. 179-135 Unaccounted for Gas ("UFG") Volume Deferral

2 There is no balance in this deferral account. The establishment of the UFG Volume  
3 Deferral Account was approved through the EB-2013-0202 Settlement Agreement. The  
4 purpose of this account is to capture the difference between Union's actual UFG costs  
5 and Board-approved UFG costs included in Union's rates, related to UFG volumes  
6 variances as a percentage of throughput volumes. The amount of the UFG volume  
7 deferral account to be cleared to customers will be subject to a symmetrical dead-band of  
8 \$5 million, with amounts within such dead-band being to Union's account only.

9  
10 Account No. 179-136 Parkway West Project Costs

11 In its EB-2012-0433 Decision, the Board approved the establishment of the Parkway  
12 West Project Costs deferral account to track the difference between the actual revenue  
13 requirement related to the costs for the Parkway West Project and the revenue  
14 requirement included in rates.

15  
16 The deferral account has a credit balance of \$0.475 million, which represents the  
17 difference between the \$0.276 million credit included in 2014 rates (EB-2013-0365) and  
18 the calculation of the actual revenue requirement of \$0.751 million credit as shown in  
19 Table 9.

Table 9  
2014 Parkway West Project Rate Base and Revenue Requirement

Line No.	Particulars (\$000's)	2014 Board- Approved (a)	2014 Actuals (b)	Difference (c) = (b - a)
	<u>Rate Base Investment</u>			
1	Capital Expenditures	73,978	80,929	6,951
2	Average Investment	8,969	12,200	3,231
	<u>Revenue Requirement Calculation:</u>			
	<u>Operating Expenses:</u>			
3	Operating and Maintenance Expenses	0	0	0
4	Depreciation Expense (1)	485	578	94
5	Property Taxes	236	16	(220)
6	Total Operating Expenses	721	594	(126)
7	Required Return (2)	518	705	187
8	Total Operating Expense and Return	1,239	1,299	61
	<u>Income Taxes:</u>			
9	Income Taxes - Equity Return (3)	104	141	37
10	Income Taxes - Utility Timing Differences (4)	(1,618)	(2,191)	(573)
11	Total Income Taxes	(1,515)	(2,050)	(536)
12	Total Revenue Requirement	(276)	(751)	(475)

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 4% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2018 required return calculation is as follows:  
 $\$12.2 \text{ million} * 64\% * 4\% = \$0.312 \text{ million plus}$   
 $\$12.2 \text{ million} * 36\% * 8.93\% = \$0.392 \text{ million for a total of } \$0.705 \text{ million.}$
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

1  
2  
3  
4

1 *Capital Expenditures*

2 The actual capital expenditures on 2014 in-service assets increased by \$6.951 million  
3 compared to the 2014 Board-approved as shown in Table 10.

4

Table 10  
Parkway West Expenditures

Line No.	Particulars (\$000's)	<u>2014 Board- Approved</u> (a)	<u>2014 Actuals</u> (b)	<u>Difference</u> (c) = (b - a)
1	Land and Easement	29,949	29,408	(541)
2	Station Infrastructure	6,957	19,906	12,949
3	Pipeline Replacement	9,875	8,315	(1,560)
4	Dawn - Parkway Valve Nest	12,033	7,454	(4,579)
5	Station Header	-	4,095	4,095
6	Enbridge Measurement	15,164	11,751	(3,413)
5	7 Total Capital Expenditures	<u>73,978</u>	<u>80,929</u>	<u>6,951</u>

6

7 Land costs were \$0.541 million less than the costs included in 2014 Board-approved rates  
8 due to the classification of zoning permit costs originally budgeted in land and easement  
9 were actually charged to station infrastructure costs. There are no substantial costs  
10 remaining related to the land and easement component of the project.

11

12 The \$6.957 million of station infrastructure costs included in 2014 Board-approved rates  
13 were largely related to the in-service of the administration building. This building was

1 not put into service in 2014 due to the zoning and site plan approval permits causing a  
2 delay in the construction and will be placed into service in 2015. The station  
3 infrastructure costs of \$19.906 million put into service in 2014 related to the costs  
4 necessary to ready the vacant land for use. Because the land and easement, pipeline  
5 replacement, Dawn-Parkway valve nest and Enbridge measurement components of the  
6 project were in-service, the associated infrastructure costs for these components were  
7 considered to be in-service.

8  
9 Pipeline replacement costs were \$1.560 million less than the costs included in 2014  
10 Board-approved rates due to the costs necessary to complete this work being less than  
11 estimated. There are no substantial costs remaining related to the pipeline replacement  
12 component of the project.

13  
14 The Dawn-Parkway valve nest 2014 in-service costs were \$4.579 million less than the  
15 costs included in 2014 Board-approved rates due to a delay in placing the connection to  
16 the 48" pipeline into service until 2015. Total estimated project costs for this component  
17 have not changed.

18  
19 The station header 2014 costs were \$4.095 million more than the costs in 2014 Board-  
20 approved rates. The station header was originally not expected to be in-service until 2015.  
21 During 2014, the station header component necessary to service the Enbridge



1 measurement facilities was available for use due to the necessary valves being in place  
2 and was put into service in 2014.

3  
4 Enbridge measurement 2014 actual costs were \$3.413 million less than the costs included  
5 in the 2014 Board-approved rates due to the final commissioning work to be undertaken  
6 in 2015.

7  
8 *Average Investment*

9 Average investment has increased by \$3.231 million over the costs included in 2014  
10 Board-approved rates due to in-service timing and capital expenditure differences.

11  
12 Land and easement, station infrastructure and pipeline replacement components were put  
13 into service in October 2014 rather than the original November 2014 estimate. In  
14 October 2014, the pipeline replacement components were gassed up and useful. The land  
15 and easement and station infrastructure components associated with the in-service assets  
16 were given the same in-service date. Monthly timing differences from the original  
17 estimate account for \$3.599 million of the average investment difference offset by  
18 differences in the capital expenditure estimates as described above.

1    *Operating Expenses*

2    There were no operating and maintenance expenses associated with the Parkway West  
3    project in 2014.

4

5    The \$0.094 million depreciation expense increase relates to increased in-service capital  
6    expenditures.

7

8    The \$0.220 million property tax decrease relates to the assessed value of the Parkway  
9    West land. The estimate of \$0.236 million included in the 2014 Board-approved rates  
10   was based on an assumption that the land would have a commercial assessed value and a  
11   commercial tax rate. The Municipal Property Assessment Corporation did not reassess  
12   the land in 2014 following its purchase by Union and the actual property taxes for 2014  
13   were based on a farmland assessed value and a residential tax rate.

14

15   *Required Return*

16   The \$0.187 million required return increase relates to an increase in the average rate base  
17   investment in 2014 from \$8.969 million to \$12.200 million. Both the 2014 Board-  
18   approved and the 2014 actual required return calculations are derived using a capital  
19   structure of 64% long-term debt at 4% and 36% common equity at the Board-approved  
20   return of 8.93%.

21

1    *Income Taxes*

2    Union's actual tax rate for 2014 was 26.5% and was used in the calculation of income  
3    taxes for purposes of this deferral account.

4

5    The \$0.037 million "income taxes – equity" increase relates to an increase in the tax  
6    impact of the equity component of the required return from \$0.104 million to \$0.141  
7    million.

8

9    The \$0.573 million "income taxes – timing" decrease relates primarily to the addition of  
10   tax deductible landscaping costs for the Parkway West land that were not included in the  
11   2014 Board-approved rates. This additional tax deduction results in lower income taxes  
12   of \$0.625 million which is offset by an increase in income taxes of \$0.052 million related  
13   to a lower interest during construction deduction.

14

15   Account No. 179-138 Parkway Obligation Rate Variance

16   In the EB-2013-0365 Settlement Agreement, Union and intervenors agreed to  
17   permanently shift the Union South DP Parkway Delivery Obligation ("PDO") to Dawn  
18   over time. As part of the Settlement, Union agreed to record rate variances associated  
19   with the timing differences between the effective date of the PDO changes and the  
20   inclusion of the cost impacts in approved rates (January 1 of the following year) in the  
21   Parkway Obligation Rate Variance deferral account.

1 In accordance with the Settlement, Union adjusted rates effective January 1, 2015 to  
2 reflect a PDO reduction of 212 TJ/d. To account for the actual effective date of April 1,  
3 2014, Union is proposing to recover \$4.665 million from ratepayers for the April 1, 2014  
4 to December 31, 2014 period. The \$4.665 million includes \$3.584 million of Dawn-  
5 Parkway demand costs, \$1.059 million of Dawn-Parkway commodity (compressor fuel)  
6 costs and \$0.022 million of interest.

7  
8 To calculate the Dawn-Parkway demand costs of \$3.584 million, Union applied nine  
9 months of the Board-approved 2014 monthly M12 Dawn-Parkway transportation rate of  
10 \$2.420/GJ to 165 TJ/d, which reflects the 212 TJ/d reduction in PDO excluding the T2  
11 reduction of 48 TJ/d for Halton Hills Generating Station.

12  
13 To calculate the Dawn-Parkway commodity (compressor fuel) costs, Union applied the  
14 Board-approved Ontario Landed Reference Price to the incremental compressor fuel  
15 associated with nine months of Dawn-Parkway activity. The increase in compressor fuel  
16 requirements results in an increase in compressor fuel costs allocated to Union South in-  
17 franchise rate classes of \$0.362 million, an increase of \$0.692 million to ex-franchise rate  
18 classes and an increase of \$0.005 million to Union North in-franchise rate classes.

19

Exhibit A, Tab 1, Appendix A, Schedule 7 provides the calculation of the PDO deferral account balance. The calculation of the deferral account balance is consistent with the EB-2013-0365 Settlement Agreement and Exhibit B.BOMA.8 as filed in EB-2014-0271.

Account No. 179-139 Energy East Pipeline Consultation Costs

There is no balance in this deferral account. The account was created in accordance with the Board's Decision in the EB-2014-0271 proceeding to record the consultation costs related to the Energy East Pipeline Project allocated by the Board.

Account No. 179-XXX Unaccounted for Gas ("UFG") Price Variance Deferral Account

Consistent with the Board's EB-2014-0145 Decision, Union is proposing a new deferral account to capture the price variance on purchased volumes related to UFG. Effective January 1, 2015, the UFG price variance deferral account will capture the variance between the actual price of Union's purchases and the applicable Board-approved reference price, applied to Union's actual experienced UFG volumes. This deferral account will be disposed of annually through the deferral account and earnings sharing proceeding. The draft accounting order can be found at Exhibit A, Tab 1, Appendix B.

UNION GAS LIMITED  
Deferral Account Balances  
Year Ending December 31, 2014

			Filed
Line	Account		Balance <sup>1</sup>
No.	Number	Account Name	(\$000's)
<u>Gas Supply Accounts:</u>			
1	179-107	Spot Gas Variance Account	(1,271)
2	179-108	Unabsorbed Demand Costs (UDC) Variance Account	(5,629)
3	179-128	Gas Supply Review Consultant Costs	-
4	179-131	Upstream Transportation Optimization	9,883
5	Total Gas Supply Accounts (Lines 2 through 4)		2,983 <sup>2</sup>
<u>Storage Accounts:</u>			
6	179-70	Short-Term Storage and Other Balancing Services	3,265
<u>Other:</u>			
7	179-103	Unbundled Services Unauthorized Storage Overrun	-
8	179-112	Gas Distribution Access Rule (GDAR) Costs	750
9	179-117	Carbon Dioxide Offset Credits	-
10	179-118	Average Use Per Customer	-
11	179-120	IFRS Conversion Cost	244
12	179-123	Conservation Demand Management	(253)
13	179-129	Preparation of Audited Utility Financial Statements	-
14	179-133	Normalized Average Consumption	(1,554)
15	179-134	Tax Variance	-
16	179-135	Unaccounted for Gas Volume Variance	-
17	179-136	Parkway West Project Costs	(475)
18	179-138	Parkway Obligation Rate Variance	4,665
19	179-139	Energy East Pipeline Consultation Costs	-
20	Total Other Accounts (Lines 7 through 19)		3,377
21	Total Deferral Account Balances (Lines 5 + 6 + 20)		9,625

Notes:

<sup>1</sup> Account balances include interest to December 31, 2014.

<sup>2</sup> With the exception of UDC (No. 179-108), Gas Supply Review Consultant Costs (No. 179-128), Upstream Transportation Optimization (No. 179-131), and a portion of the Spot Gas Variance Account (No. 179-107), all gas supply-related deferral account balances are disposed of through the QRAM process.

UNION GAS LIMITEDTransportation 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  
Details of Revenues and Costs and Calculation of Balance  
in Short-Term Storage Deferral Account (No. 179-70)

Line No.	Particulars (\$000's)	Board-Approved 2013 (a)	Actual 2014 (c)
	Revenue		
1	C1 Off-Peak Storage	500	241
2	Supplemental Balancing Services	2,000	752
3	Gas Loans		54
4	Enbridge LBA		237
5		2,500	1,283
6	C1 ST Firm Peak Storage	7,883	3,235
7	Total Revenue <sup>1</sup>	10,383	4,518
	Costs		
8	O&M <sup>2</sup>	3,810	2,161
9	UFG <sup>3</sup>	316	500
10	Compressor Fuel <sup>4</sup>	1,201	428
11	Total Costs	5,327	3,089
12	Net Revenue (line 7 - 11)	5,056	1,429
13	Less Shareholder Portion (10%)	505	143
14	Ratepayer Portion	4,551	1,286
15	Approved in Rates	4,551	4,551
16	Deferral balance payable to/(collectable from) ratepayers	-	(3,265)

Notes:

- (1) Based on short-term peak storage services provided.
- (2) Revenue Requirement on 11.3 PJ of Board-approved excess in-franchise storage capacity, 6.4 PJ of excess utility space for 2014 actual.
- (3) Based on short-term peak storage volumes in proportion to total volumes.
- (4) Based on short-term peak storage activity in proportion to total actual storage activity.



UNION GAS LIMITED  
Summary of Non-Utility Storage Balances

<u>Date</u>	<u>Entitlement</u>	<u>Balance</u>	<u>% Full</u>		<u>Date</u>	<u>Entitlement</u>	<u>Balance</u>	<u>% Full</u>
	(PJ)	(PJ)	(%)			(PJ)	(PJ)	(%)
01-Oct-14	83.2	73.8	89%		01-Nov-14	83.2	81.4	98%
02-Oct-14	83.2	74.5	90%		02-Nov-14	83.2	81.3	98%
03-Oct-14	83.2	75.2	90%		03-Nov-14	83.2	81.3	98%
04-Oct-14	83.2	76.0	91%		04-Nov-14	83.2	81.4	98%
05-Oct-14	83.2	76.8	92%		05-Nov-14	83.2	81.3	98%
06-Oct-14	83.2	77.4	93%		06-Nov-14	83.2	81.2	98%
07-Oct-14	83.2	77.8	94%		07-Nov-14	83.2	81.2	98%
08-Oct-14	83.2	77.8	94%		08-Nov-14	83.2	81.3	98%
09-Oct-14	83.2	78.0	94%		09-Nov-14	83.2	81.3	98%
10-Oct-14	83.2	78.2	94%		10-Nov-14	83.2	81.2	98%
11-Oct-14	83.2	78.5	94%		11-Nov-14	83.2	81.3	98%
12-Oct-14	83.2	78.9	95%		12-Nov-14	83.2	81.1	97%
13-Oct-14	83.2	79.3	95%		13-Nov-14	83.2	80.7	97%
14-Oct-14	83.2	79.6	96%		14-Nov-14	83.2	80.3	97%
15-Oct-14	83.2	79.8	96%		15-Nov-14	83.2	80.1	96%
16-Oct-14	83.2	80.0	96%		16-Nov-14	83.2	79.9	96%
17-Oct-14	83.2	80.4	97%		17-Nov-14	83.2	79.4	96%
18-Oct-14	83.2	80.6	97%		18-Nov-14	83.2	78.2	94%
19-Oct-14	83.2	80.7	97%		19-Nov-14	83.2	77.0	93%
20-Oct-14	83.2	80.7	97%		20-Nov-14	83.2	76.4	92%
21-Oct-14	83.2	80.5	97%		21-Nov-14	83.2	76.3	92%
22-Oct-14	83.2	80.5	97%		22-Nov-14	83.2	76.8	92%
23-Oct-14	83.2	80.7	97%		23-Nov-14	83.2	77.6	93%
24-Oct-14	83.2	81.0	97%		24-Nov-14	83.2	78.4	94%
25-Oct-14	83.2	81.3	98%		25-Nov-14	83.2	78.9	95%
26-Oct-14	83.2	81.6	98%		26-Nov-14	83.2	78.9	95%
27-Oct-14	83.2	81.7	98%		27-Nov-14	83.2	78.9	95%
28-Oct-14	83.2	81.9	98%		28-Nov-14	83.2	78.7	95%
29-Oct-14	83.2	81.9	99%		29-Nov-14	83.2	78.8	95%
30-Oct-14	83.2	81.8	98%		30-Nov-14	83.2	79.3	95%
31-Oct-14	83.2	81.6	98%					

UNION GAS LIMITED  
Allocation of Short-Term Peak Storage Revenues Between Utility and Non-Utility

Line No.	Particulars	Utility Storage Space (PJ)	Short-Term Peak Storage Sold (PJ)	Revenue from Short- Term Peak Storage (\$ millions)
1	Net Revenues from Short-Term Peak Storage			3.5
2	Total Short-Term Peak Storage Sales		6.9	
3	Storage Space reserved for Utility	100.0		
4	Utility Space Requirement	93.6		
5	Excess Utility Storage Space (line 3 - line 4)	6.4		
6	Total Utility Short-Term Peak Storage Sales (line 5)		6.4	
7	Total Non-Utility Short-Term Peak Storage Sales		0.5	
8	Short-Term Peak Storage Net Revenues - Utility (line 6 / line 2 * line 1)			3.2
9	Short-Term Peak Storage Net Revenues - Non-Utility (line 7 / line 2 * line 1)			0.2

UNION GAS LIMITED  
Calculation of Balances by Rate Class in the NAC Deferral Account (No. 179-133)

Line No.	Particulars (m <sup>3</sup> )		Rate 01 (a)	Rate 10 (b)	Rate M1 (c)	Rate M2 (d)	Net Account Balance (e)
1	2014 Target NAC: m <sup>3</sup>		2,898	167,443	2,751	165,085	
2	2014 Actual NAC: m <sup>3</sup>		2,923	172,516	2,748	167,537	
3	Actual change in NAC (line 1 - line 2)		(25)	(5,073)	4	(2,452)	
4	2013 Board Approved Number of Customers at December		323,287	2,064	1,067,757	6,778	1,399,886
5	Annual Volume Impact (10 <sup>3</sup> m <sup>3</sup> ) (line 3 x line 4)	(1)	(8,030)	(10,431)	3,739	(16,457)	(31,180)
6	2014 Net Annual Average Delivery Rate (\$/m <sup>3</sup> )	(2)	\$0.087	\$0.053	\$0.035	\$0.033	
7	2014 Net Annual Storage Rate (\$/m <sup>3</sup> )	(3)	\$0.030	\$0.022	\$0.007	\$0.007	
8	Delivery Rate Annual Balance Amount (\$ 000) (line 5 x line 6)		(\$738)	(\$563)	\$83	(\$570)	(\$1,788)
9	Storage Rate Annual Balance Amount (\$ 000) (line 5 x line 7)		(\$245)	(\$228)	\$28	(\$109)	(\$553)
10	Storage Cost Annual Balance Amount (\$ 000)		\$26	\$18	\$1,095	(\$365)	\$774
11	Interest (\$ 000)		\$3	(\$3)	\$11	2	\$14
12	Total Deferral Account Amounts (\$ 000) (line 8+9+10+11)		(\$954)	(\$776)	\$1,217	(\$1,041)	(\$1,554)

Notes:

- (1) The annual volume is obtained from a monthly calculation of approved customers and the monthly usage variance.
- (2) The Net Annual Average Delivery Rate is the average of monthly unit rates that are adjusted by quarterly QRAM rate adjustments.
- (3) The Storage Rates are constant each month throughout the year.

**UNION GAS LIMITED**  
**Estimated 2014 Deferral Rate Adjustment Summary**  
**Based on Forecast Parkway Delivery Obligation Reduction of 212 TJ/d and 66 TJ/d of M12 Turnback**  
**From April 1, 2014 to December 31, 2014**

Line No.	Rate Class (\$000's)	Dawn-Parkway Demand Costs (a)	Compressor Fuel Costs (b)	Interest (1) (c)	Total Costs (d) = (a + b + c)
1	Rate M1	1,818	129	9	1,956
2	Rate M2	611	45	3	660
3	Rate M4	178	21	1	199
4	Rate M5 - Firm	2	1	0	2
5	Rate M5 - Interruptible	-	14	0	14
6	Rate M7 - Firm	82	8	0	91
7	Rate M7 - Interruptible	-	-	-	-
8	Rate M9	29	4	0	34
9	Rate M10	1	0	0	1
10	Rate T1 - Firm	88	19	1	107
11	Rate T1 - Interruptible	-	2	0	2
12	Rate T2 - Firm	569	97	3	670
13	Rate T2 - Interruptible	-	2	0	2
14	Rate T3	206	19	1	227
15	Total South In-franchise	3,584	362	19	3,965
16	Excess Utility Storage Space	-	-	-	-
17	Rate C1 - Firm	-	8	0	8
18	Rate C1 - Interruptible	-	152	1	153
19	Rate M12	-	529	2	531
20	Rate M13	-	-	-	-
21	Rate M16	-	3	0	3
22	Total Ex-franchise	-	692	3	695
23	Rate 01	-	3	0	3
24	Rate 10	-	1	0	1
25	Rate 20	-	0	0	0
26	Rate 100	-	0	0	0
27	Rate 25	-	-	-	-
28	Total North In-franchise	-	5	0	5
29	Total (line 15 + line 22 + line 28)	3,584	1,059	22	4,665

**Note:**

- (1) Simple interest computed monthly on the opening balance of the Parkway Obligation deferral account at a rate of 1.47%. Allocated to rate classes in proportion to Dawn-Parkway demand and compressor fuel costs column (a) and column (b).

UNION GAS LIMITED

Estimated 2014 Deferral Impact to Union South In-Franchise Customers of M12 Demand Costs

Based on 212 TJ/d of M12 Dawn to Parkway Capacity and 48 TJ/d of T2 Billing Contract Demand Revenue Credit from April 1, 2014 to December 31, 2014

Line No.	Rate Class	2013 Approved Dawn-Parkway Design Day Demands (1) (10 <sup>3</sup> m <sup>3</sup> /d) (a)	Dawn-Parkway Demand Costs of 146 TJ/d (2) (\$000's) (b)	Dawn-Parkway Demand Costs of 19 TJ/d (2) (\$000's) (c)	Dawn-Parkway Demand Costs of 48 TJ/d (2) (\$000's) (d)	Dawn-Parkway Demand Costs of 212 TJ/d (\$000's) (e) = (b + c + d)	T2 BCD Revenue Credit of 48 TJ/d (\$000's) (f)	Total Demand Costs (\$000's) (g) = (e + f)
1	Rate M1	22,132	1,613	205	526	2,345	(526)	1,818
2	Rate M2	7,435	542	69	177	788	(177)	611
3	Rate M4	2,162	158	20	51	229	(51)	178
4	Rate M5 Firm	20	1	0	0	2	(0)	2
5	Rate M5 Interruptible	-	-	-	-	-	-	-
6	Rate M7 Firm	997	73	9	24	106	(24)	82
7	Rate M7 Interruptible	-	-	-	-	-	-	-
8	Rate M9	356	26	3	8	38	(8)	29
9	Rate M10	11	1	0	0	1	(0)	1
10	Rate T1 Firm	1,068	78	10	25	113	(25)	88
11	Rate T1 Interruptible	-	-	-	-	-	-	-
12	Rate T2 Firm	6,931	505	64	165	734	(165)	569
13	Rate T2 Interruptible	-	-	-	-	-	-	-
14	Rate T3	2,511	183	23	60	266	(60)	206
15	Total	43,624	3,180 (3)	404 (4)	1,038 (5)	4,622	(1,038) (5)	3,584

Notes:

- (1) In-franchise Design Day Demand Allocation Factor per EB-2011-0210, Exhibit G3, Tab 5, Schedule 23, Page 7, line 2, Updated for Board Decision.
- (2) Allocated using column (a).
- (3) Calculated as 146 TJ x 2.420 x 9 = \$3.18 million. Rate represents the M12 Dawn to Parkway demand rate per EB-2013-0365.
- (4) Calculated as 19 TJ x 2.420 x 9 = \$0.404 million. Rate represents the M12 Dawn to Parkway demand rate per EB-2013-0365.
- (5) Calculated as 48 TJ x 2.420 x 9 = \$1.038 million. Rate represents the M12 Dawn to Parkway demand rate per EB-2013-0365.

UNION GAS LIMITED  
2014 Estimated Deferral Commodity Cost Adjustments  
Based on Parkway Delivery Obligation Reduction of 212 TJ/d and 66 TJ/d of M12 Turnback from April 1, 2014 to December 31, 2014

Line No.	Rate Class	2013 Board-Approved Compressor Fuel		Adjusted Compressor Fuel		Difference		Apr-Sept Cost (1)	Oct-Dec Cost (2)	Total Cost
		(GJ)	(GJ)	(GJ)	(GJ)	(GJ)	(GJ)	(\$000's)	(\$000's)	(\$000's)
		(a)	(b)	(c)	(d)	(e) = (c - a)	(f) = (d - b)	(g)=(e x 6.171/1000)	(h)=(f x 5.435/1000)	(i)= (g + h)
1	Rate M1	-	7,242	4,944	25,285	4,944	18,043	31	98	129
2	Rate M2	-	2,562	1,749	8,946	1,749	6,383	11	35	45
3	Rate M4	-	1,168	797	4,078	797	2,910	5	16	21
4	Rate M5 - Firm	-	30	20	104	20	74	0	0	1
5	Rate M5 - Interruptible	-	810	553	2,827	553	2,017	3	11	14
6	Rate M7 - Firm	-	470	321	1,640	321	1,171	2	6	8
7	Rate M7 - Interruptible	-	-	-	-	-	-	-	-	-
8	Rate M9	-	241	165	842	165	601	1	3	4
9	Rate M10	-	1	1	3	1	2	0	0	0
10	Rate T1 - Firm	-	1,064	726	3,715	726	2,651	4	14	19
11	Rate T1 - Interruptible	-	113	77	396	77	282	0	2	2
12	Rate T2 - Firm	-	5,481	3,741	19,135	3,741	13,655	23	74	97
13	Rate T2 - Interruptible	-	129	88	450	88	321	1	2	2
14	Rate T3	-	1,083	739	3,781	739	2,698	5	15	19
15	Total South In-franchise	-	20,393	13,921	71,201	13,921	50,807	86	276	362
16	Excess Utility Storage Space	-	-	-	-	-	-	-	-	-
17	Rate C1 - Firm	8,640	4,064	9,779	4,253	1,138	189	7	1	8
18	Rate C1 - Interruptible	109,956	223,826	122,729	237,268	12,773	13,442	79	73	152
19	Rate M12	796,486	1,043,591	857,940	1,071,093	61,454	27,501	379	149	529
20	Rate M13	-	-	-	-	-	-	-	-	-
21	Rate M16	-	-	162	453	162	453	1	2	3
22	Total Ex-franchise	915,083	1,271,481	990,609	1,313,067	75,526	41,586	466	226	692
23	Rate 01	-	7,636	-	8,250	-	614	-	3	3
24	Rate 10	-	2,403	-	2,597	-	193	-	1	1
25	Rate 20	-	854	-	922	-	69	-	0	0
26	Rate 100	-	27	-	29	-	2	-	0	0
27	Rate 25	-	-	-	-	-	-	-	-	-
28	Total North In-franchise	-	10,920	-	11,798	-	878	-	5	5
29	Total (line 15 + line 22 + line 28)	915,083	1,302,795	1,004,530	1,396,065	89,447	93,271	552	507	1,059

Notes:

- (1) Compressor fuel cost based on EB-2014-0050 April 2014 QRAM Ontario Landed Reference Price of \$6.171/GJ.  
(2) Compressor fuel cost based on EB-2014-0208 October 2014 QRAM Ontario Landed Reference Price of \$5.435/GJ.

**DRAFT**

**UNION GAS LIMITED**

**Accounting Entries for  
Unaccounted for Gas (UFG) Price Variance Account  
Deferral Account No. 179-XXX**

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit	-	Account No. 179-XXX Other Deferred Charges - UFG Price Variance Account
Credit	-	Account No. 179-106/105 Other Deferred Charges – South/North Purchase Gas Variance Accounts

To record as a debit (credit) in Deferral Account No. 179-XXX, the variance between the actual price of Union's purchases and the applicable Board-approved reference price, applied to Union's actual experienced UFG volumes.

Debit	-	Account No. 179-XXX Other Deferred Charges - UFG Price Variance Account
Credit	-	Account No. 323 Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-XXX, interest on the balance in Deferral Account No. 179-XXX. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the Board in EB-2006-0117.

**2014 UTILITY RESULTS AND EARNINGS SHARING**

**2014 UTILITY RESULTS**

For the year ended December 31, 2014, Union's actual revenue sufficiency from utility operations is \$2.1 million higher relative to 2013. Table 1 below provides the results from Union's actual utility operations for 2014.

Table 1

Calculation of Revenue Deficiency/(Sufficiency) from Utility Operations  
For the Year Ended December 31, 2014

Line No.	Particulars (\$ Millions)	Board Approved 2013 (a)	Actual 2013 (b)	Actual 2014 (c)	Increase/ (decrease) 2014 vs. 2013 (d) = (c) - (b)
1	Gas sales and distribution revenue	1,448.8	1,605.3	1,761.5	
2	Cost of gas	<u>701.4</u>	<u>830.3</u>	<u>958.5</u>	
3	Gas distribution margin	747.4	775.0	803.0	28.0
4	Transportation	157.0	160.1	151.4	(8.7)
5	Storage	10.4	8.8	7.8	(1.0)
6	Other revenue	20.2	18.0	14.9	(3.1)
7	Expenses	643.8	638.7	646.3	7.6
8	Income taxes	<u>17.1</u>	<u>25.8</u>	<u>24.0</u>	<u>(1.8)</u>
9	Utility income	274.1	297.4	306.8	9.4
10	Cost of Capital	<u>272.6</u>	<u>271.7</u>	<u>280.9</u>	<u>9.2</u>
11	Revenue deficiency / (sufficiency) after tax	(1.5)	(25.7)	(25.9)	(0.2)
12	Provision for income taxes on deficiency / (sufficiency)	<u>(0.5)</u>	<u>(9.2)</u>	<u>(9.3)</u>	<u>(0.1)</u>
13	Distribution revenue deficiency/(sufficiency)	(2.0)	(34.9)	(35.2)	(0.3)
14	Shareholder portion of short-term storage revenue	0.5	0.3	0.1	(0.2)
15	Shareholder portion of optimization activity	<u>1.5</u>	<u>2.4</u>	<u>0.8</u>	<u>(1.6)</u>
16	Total revenue deficiency/(sufficiency)	<u>-</u>	<u>(32.2)</u>	<u>(34.3)</u>	<u>(2.1)</u>



1 The primary drivers of Union's 2014 financial results relative to 2013 are provided  
2 below.

3  
4 Gas Distribution Margin

5 The increase in gas distribution margin of \$28.0 million relative to 2013 was mainly  
6 driven by an increase in customer usage of natural gas primarily due to colder weather  
7 and growth in the number of customers. The increase was also driven by a reduction in  
8 the Parkway Delivery Obligation for Union South customers, which is directly offset by a  
9 decrease in transportation revenue.

10  
11 Transportation Revenue

12 The decrease in transportation revenue of \$8.7 million relative to 2013 was mainly driven  
13 by a cancellation fee in 2013 for early termination of an M12 contract, and a reduction in  
14 the Parkway Delivery Obligation.

15  
16 Other Revenue

17 The decrease in other revenue of \$3.1 million relative to 2013 was mainly driven by a  
18 Decision by the Board in Union's 2012 Deferrals proceeding (EB-2013-0109)  
19 disallowing Union's proposal to establish a new Deferral Clearing Variance Account to  
20 capture differences between deferral balances approved for disposition and amounts  
21 prospectively refunded to or recovered from customers.

1 Expenses

2 The increase in expenses of \$7.6 million relative to 2013 was mainly driven by higher  
3 depreciation expense due to new projects placed into service.

4  
5 Income Taxes

6 The decrease in income taxes relative to 2013 of \$1.8 million is primarily driven by  
7 utility timing differences.

8  
9 2014 EARNINGS SHARING

10 The benchmark return on equity (“ROE”) for 2014 was 8.93%. Union’s actual ROE  
11 from utility operations in 2014 was 10.69% or 176 basis points above the 2014  
12 benchmark ROE.

13  
14 The calculation of ROE for 2014 is found at Exhibit A, Tab 2, Appendix B, Schedule 1.  
15 To calculate actual utility earnings Union starts in column (a) with Union’s total  
16 corporate revenues and operating expenses; column (b) removes revenues and costs  
17 associated with Union’s unregulated storage operations; column (c) makes adjustments  
18 that would normally be made under cost of service to arrive at utility income. To arrive  
19 at utility earnings for the purposes of earnings sharing, income taxes, interest and  
20 preferred dividends, and the shareholder portion of net short term storage revenue and net  
21 optimization activity, are deducted. The adjustments are discussed in more detail below.

1 Unregulated Storage Operations

2 The revenues and costs for Union's unregulated storage operations are shown at Exhibit  
3 A, Tab 2, Appendix B, Schedule 1, column (b). The regulated and unregulated financial  
4 information was allocated using the methodology approved in EB-2011-0210.

5  
6 Adjustments

7 Union is making the following adjustments to utility earnings (Exhibit A, Tab 2,  
8 Appendix B, Schedule 1, column (c)):

9 A) Demand Side Management Incentive

10 B) Charitable donations

11 C) Facility fees, customer deposit interest and foreign exchange on bank balances

12 D) Other

13  
14 A) Demand Side Management Incentive

15 Other revenue includes the revenue recorded for the Demand Side Management Incentive  
16 ("DSMI") of \$6.328 million. The DSMI amount is an incentive to the company to  
17 encourage it to actively pursue DSM activities. To ensure that the full amount of the  
18 DSMI accrues to the company and that the incentive is maintained, the DSMI revenue is  
19 removed from the earnings sharing calculation.

1 B) Charitable Donations

2 Charitable donation costs incurred by the utility are not allowable as deductions from  
3 utility earnings and as a result \$3.425 million in costs have been removed.

4  
5 C) Facility Fees, Customer Deposit Interest and Foreign Exchange on Bank Balances

6 Facility fees, customer deposit interest and foreign exchange on bank balances are  
7 recorded in the company's corporate results as interest expense. Since these items should  
8 be included in utility earnings, and are not part of the utility interest calculation, they  
9 need to be adjusted. As a result, facility fees and customer deposit interest of \$0.689  
10 million have been added to operating expenses and foreign exchange gain on bank  
11 balances of \$0.585 million has been included in other expenses to arrive at utility  
12 earnings.

13  
14 D) Other

15 In Union's corporate results, the transportation optimization built into distribution rates  
16 was reclassified to transportation revenue as an offset to the actual optimization revenue  
17 earned. In order to align with the Board-approved presentation, this adjustment of  
18 \$17.010 million has been shown as a cost of gas reduction.

Union's 2014 corporate results include the revenue associated with 2012 FT-RAM activity totaling \$32.375 million which has been removed from transportation revenues as it was already included in 2012 earnings sharing.

Amounts relating to the Conservation Demand Management ("CDM") program of \$0.273 million have been removed from operating and maintenance expenses because of a separate deferral sharing mechanism.

#### Income Taxes

The approach used to calculate income taxes is the same approach used for rate making under cost of service.

Current utility income taxes are calculated using utility income before interest and taxes less deemed interest costs, and permanent and timing differences to arrive at taxable income multiplied by the current tax rates. The calculation can be found at Exhibit A, Tab 2, Appendix A, Schedule 14.

#### Interest and Preferred Dividends

The calculation of interest and preferred dividends is the same approach used for rate making under cost of service.

Utility interest expense is calculated using actual utility rate base, deemed capital structure, and actual average interest rates. The calculation can be found at Exhibit A, Tab 2, Appendix A, Schedule 4.

Preferred share dividend requirements are based on deemed capital structure and cost of capital. The calculation can be found at Exhibit A, Tab 2, Appendix A, Schedule 4.

#### Shareholder Portion of Net Short-Term Storage Revenue

The shareholder portion of net short-term storage revenue represents Union's 10% share of the actual net margin generated on the sale of excess utility storage space. The shareholder portion of \$0.105 million, net of tax, has been removed from the earnings sharing calculation.

#### Shareholder Portion of Net Optimization Activity

The shareholder portion of net optimization activity represents Union's 10% share of the net margin generated on optimization activities. The shareholder portion of \$0.582 million, net of tax, has been removed from the earnings sharing calculation

#### Return on Equity ("ROE")

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 2014 ROE is

1 10.69% (Exhibit A, Tab 2, Appendix B, Schedule 1, column (d), line 28).

2  
3 Earnings Subject to Sharing

4 The actual ROE is compared to the benchmark ROE. If the difference between the actual  
5 ROE and the benchmark ROE is greater than 100 basis points but less than 200 basis  
6 points, the excess earnings are shared 50/50 between Union and its ratepayers. If the  
7 difference between the actual ROE and the benchmark ROE exceeds 200 basis points,  
8 then that excess over 200 basis points is shared 90/10 to the benefit of the ratepayers. For  
9 2014, the difference is 176 basis points or \$5.457 million, after tax (Tab 2, Appendix B,  
10 Schedule 1, column (d), line 34). The entire amount is attributed to 50/50 sharing. When  
11 grossed up for income taxes, the amount of the earnings sharing is \$7.424 million (Tab 2,  
12 Appendix B, Schedule 1, column (d), line 35).

13  
14 2014 UNREGULATED STORAGE

15 As directed by the Board in its EB-2011-0210 Decision and Order (p. 79), Union has  
16 provided plant continuity schedules related to Union's unregulated storage business at  
17 Exhibit A, Tab 2, Appendix C, Schedules 1-3.

18  
19 SERVICE QUALITY RESULTS

20 As set out in Union's 2014-2018 IRM Settlement Agreement (p. 40), Union has provided  
21 the service quality indicator results at Exhibit A, Tab 2, Appendix D, Schedule 1.

UNION GAS LIMITED  
Calculation of Revenue Deficiency/(Sufficiency)  
Year Ended December 31

Line No.	Particulars (\$000s)	Board-Approved 2013 (a)	Actual 2013 (b)	Actual 2014 (c)
1	Operating revenue	1,636,340	1,792,286	1,935,529
2	Cost of service	1,362,212	1,494,930	1,628,716
3	Utility income	274,128	297,356	306,813
4	Requested return	272,639	271,717	280,898
5	Revenue deficiency / (sufficiency) after tax	(1,489)	(25,639)	(25,915)
6	Provision for income taxes on deficiency / (sufficiency)	(509)	(9,244)	(9,344)
7	Distribution revenue deficiency / (sufficiency)	(1,998)	(34,883)	(35,259)
8	Shareholder portion of short-term storage revenue	506	303	143
9	Shareholder portion of optimization activity	1,492	2,376	792
10	Total revenue deficiency/ (sufficiency)	\$ -	\$ (32,204)	\$ (34,324)



UNION GAS LIMITED  
Statement of Utility Income  
Year Ended December 31

Line No.	Particulars (\$000s)	Board-Approved 2013 (a)	Actual 2013 (b)	Actual 2014 (c)
	Operating Revenues:			
1	Gas sales and distribution	1,448,762	1,605,289	1,761,499
2	Transportation	156,997	160,108	151,373
3	Storage	10,383	8,844	7,783
4	Other	20,198	18,045	14,874
5		1,636,340	1,792,286	1,935,529
	Operating Expenses:			
6	Cost of gas	701,427	830,300	958,517
7	Operating and maintenance expenses	383,132	381,038	379,760
8	Depreciation	196,091	192,957	200,368
9	Other financing	1,179	383	689
10	Property and capital taxes	63,272	63,845	64,324
11		1,345,101	1,468,523	1,603,658
	Other Income (Expense)			
12	Gain/(Loss) on sale of assets	-	64	133
13	Gain/(Loss) on foreign exchange	-	(655)	(1,185)
14		-	(592)	(1,052)
15	Utility income before income taxes	291,239	323,171	330,819
16	Income taxes	17,111	25,815	24,006
17	Total utility income	\$ 274,128	\$ 297,356	\$ 306,813

UNION GAS LIMITED  
Statement of Earnings Before Interest and Taxes  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved				2013 Actual				2014 Actual			
		Corporate	Unregulated Storage	Adjustments	Utility	Corporate	Unregulated Storage	Adjustments	Utility	Corporate	Unregulated Storage	Adjustments	Utility
		(a)	(b)	(c)	(d)=(a)-(b)+(c)	(e)	(f)	(g)	(h)=(e)-(f)+(g)	(i)	(j)	(k)	(l)=(i)-(j)+(k)
	Operating Revenues:												
1	Gas sales and distribution	1,448,762	-	-	1,448,762	1,620,985	-	(15,697)	1,605,289	1,778,509	-	(17,010) <sup>(i)</sup>	1,761,499
2	Transportation	156,641	(356)	-	156,997	161,178	(356)	(1,426)	160,108	183,393	(356)	(32,375) <sup>(ii)</sup>	151,373
3	Storage	96,441	86,059	-	10,383	90,672	81,828	-	8,844	82,329	74,546	-	7,783
4	Other	24,498	-	(4,300)	20,198	27,268	-	(9,224)	18,045	21,201	-	(6,328) <sup>(iii)</sup>	14,874
5		<u>1,726,343</u>	<u>85,703</u>	<u>(4,300)</u>	<u>1,636,340</u>	<u>1,900,104</u>	<u>81,472</u>	<u>(26,346)</u>	<u>1,792,286</u>	<u>2,065,433</u>	<u>74,190</u>	<u>(55,713)</u>	<u>1,935,529</u>
	Operating Expenses:												
6	Cost of gas	701,966	539	-	701,427	848,876	2,879	(15,697)	830,300	977,185	1,657	(17,010) <sup>(i)</sup>	958,517
7	Operating and maintenance expenses	397,112	12,986	(993)	383,132	397,275	13,283	(2,954)	381,038	396,932	14,020	(3,152) <sup>(iv)</sup>	379,760
8	Depreciation	205,804	9,713	-	196,091	202,682	9,725	-	192,957	210,640	10,272	-	200,368
9	Other financing	-	-	1,179	1,179	-	-	383	383	-	-	689 <sup>(v)</sup>	689
10	Property and other taxes	<u>64,674</u>	<u>1,402</u>	<u>-</u>	<u>63,272</u>	<u>65,288</u>	<u>1,444</u>	<u>-</u>	<u>63,845</u>	<u>65,791</u>	<u>1,468</u>	<u>-</u>	<u>64,324</u>
11		1,369,556	24,640	186	1,345,101	1,514,122	27,330	(18,268)	1,468,523	1,650,547	27,417	(19,473)	1,603,658
	Other Income (Expense)												
12	Gain/(Loss) on sale of assets	-	-	-	-	(227)	(291)	-	64	(768)	(901)	-	133
13	Other	-	-	-	-	(1,580)	(1,580)	-	-	(1,483)	(1,483)	-	-
14	Gain/(Loss) on foreign exchange	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(1,051)</u>	<u>(22)</u>	<u>374</u>	<u>(655)</u>	<u>(1,814)</u>	<u>(43)</u>	<u>585</u> <sup>(vi)</sup>	<u>(1,185)</u>
15		-	-	-	-	(2,858)	(1,893)	374	(592)	(4,065)	(2,428)	585	(1,052)
16	Earnings Before Interest and Taxes	\$ <u>356,787</u>	\$ <u>61,063</u>	\$ <u>(4,486)</u>	\$ <u>291,239</u>	\$ <u>383,124</u>	\$ <u>52,249</u>	\$ <u>(7,705)</u>	\$ <u>323,171</u>	\$ <u>410,820</u>	\$ <u>44,346</u>	\$ <u>(35,654)</u>	\$ <u>330,819</u>

Notes:

i) Reclassification of optimization revenue as cost of gas

ii) Exclusion of 2012 FT RAM revenue

iii) Demand Side Management Incentive

iv) Charitable donations (3,425)  
CDM Program 273  
(3,152)

v) Facility fees and customer deposit interest

vi) Foreign exchange gain on bank balances

UNION GAS LIMITED  
Summary of Cost of Capital  
Year Ended December 31

Line No.	Particulars	2013 Board-Approved				2013 Actual				2014 Actual			
		Utility Capital Structure (\$000s)	(%)	Cost Rate %	Return (\$000s)	Utility Capital Structure (\$000s)	(%)	Cost Rate %	Return (\$000s)	Utility Capital Structure (\$000s)	(%)	Cost Rate %	Return (\$000s)
1	Long-term debt	2,289,139	61.30%	6.53%	149,481	2,262,097	59.78%	6.51%	147,362	2,502,250	62.93%	6.03%	150,959
2	Unfunded short-term debt	(1,287)	(0.03%)	1.31%	(17)	56,692	1.50%	1.15%	652	(60,507)	(1.52%)	1.19%	(720)
3	Total debt	2,287,852	61.26%		149,464	2,318,789	61.28%		148,014	2,441,743	61.41%		150,239
4	Preference shares	102,248	2.74%	3.05%	3,117	102,879	2.72%	2.00%	2,060	103,164	2.59%	2.74%	2,825
5	Common equity	1,344,432	36.00%	8.93%	120,058	1,362,188	36.00%	8.93%	121,643	1,431,510	36.00%	8.93%	127,834
6	Total rate base	<u>\$ 3,734,532</u>	<u>100.00%</u>		<u>\$ 272,639</u>	<u>\$ 3,783,855</u>	<u>100.00%</u>		<u>\$ 271,717</u>	<u>\$ 3,976,418</u>	<u>100.00%</u>		<u>\$ 280,898</u>

UNION GAS LIMITED  
Total Weather Normalized Throughput Volume by Service type and Rate Class  
All Customer Rate Classes  
Year Ended December 31

Line No.	Volumes in 10 <sup>3</sup> m <sup>3</sup>	Board Approved 2013						Actual 2013						Actual 2014					
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	<u>General Service</u>																		
1	Rate M1 Firm	2,271,443	465,977	185,421	16,702	-	2,939,543	2,533,618	304,157	69,651	15,797	-	2,923,223	2,602,598	273,220	53,026	15,560	-	2,944,404
2	Rate M2 Firm	378,137	336,728	23,220	237,485	-	975,571	583,062	291,745	11,894	253,205	-	1,139,905	612,196	301,067	7,220	251,462	-	1,171,944
3	Rate 01 Firm	641,423	233,272	-	9,727	-	884,421	789,482	132,305	-	9,443	-	931,231	829,132	117,249	-	9,760	-	956,141
4	Rate 10 Firm	155,398	82,428	-	85,062	-	322,887	182,314	70,664	-	91,087	3,457	347,521	191,175	69,786	-	90,362	2,844	354,167
5	Total General Service	3,446,401	1,118,404	208,642	348,975	-	5,122,423	4,088,476	798,871	81,545	369,532	3,457	5,341,881	4,235,102	761,323	60,246	367,143	2,844	5,426,657
	<u>Wholesale - Utility</u>																		
6	Rate M9 Firm	-	-	-	60,750	-	60,750	-	-	-	63,240	-	63,240	-	-	-	67,138	-	67,138
7	Rate M10 Firm	48	-	-	141	-	189	284	-	-	-	-	284	312	-	-	-	-	312
8	Total Wholesale - Utility	48	-	-	60,891	-	60,939	284	-	-	63,240	-	63,524	312	-	-	67,138	-	67,450
	<u>Contract</u>																		
9	Rate M4	16,855	-	-	387,823	-	404,678	29,890	12,923	-	432,002	-	474,815	37,330	11,639	-	435,435	-	484,404
10	Rate M7	-	-	-	147,143	-	147,143	10,921	-	-	161,362	-	172,283	27,984	2,922	-	361,350	-	392,256
11	Rate 20 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Rate 20 Transportation	13,514	-	-	110,097	506,191	629,802	7,264	-	-	97,110	546,594	650,968	8,614	-	-	93,899	433,114	535,626
13	Rate 100 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Rate 100 Transportation	-	-	-	-	1,895,488	1,895,488	-	-	-	-	1,926,579	1,926,579	-	-	-	-	1,710,928	1,710,928
15	Rate T-1 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Rate T-1 Transportation	-	-	-	-	548,986	548,986	-	-	-	-	452,838	452,838	-	-	-	-	470,811	470,811
17	Rate T-2 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Rate T-2 Transportation	-	-	-	-	4,880,297	4,880,297	-	-	-	-	4,241,475	4,241,475	-	-	-	-	4,305,103	4,305,103
19	Rate T-3 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Rate T-3 Transportation	-	-	-	-	272,712	272,712	-	-	-	-	273,597	273,597	-	-	-	-	288,979	288,979
21	Rate M5	14,152	-	-	520,981	-	535,132	25,761	941	-	497,780	-	524,481	14,733	-	-	244,625	-	259,358
22	Rate 25	42,913	-	-	-	116,643	159,555	97,661	-	-	-	117,806	215,467	97,399	-	-	-	89,150	186,550
23	Rate 30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Total Contract	87,433	-	-	1,166,044	8,220,317	9,473,795	171,497	13,864	-	1,188,254	7,558,890	8,932,505	186,060	14,561	-	1,135,309	7,298,086	8,634,015
25	Total Throughput Volume	3,533,882	1,118,404	208,642	1,575,911	8,220,317	14,657,156	4,260,257	812,735	81,545	1,621,026	7,562,347	14,337,910	4,421,475	775,883	60,246	1,569,589	7,300,929	14,128,122

UNION GAS LIMITED  
Throughput Volume by Service type and Rate Class  
All Customer Rate Classes  
Year Ended December 31

Line No.	Volumes in 10 <sup>3</sup> m <sup>3</sup>	Board Approved 2013				
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service
		(a)	(b)	(c)	(d)	(e)
						Total (f)
<u>General Service</u>						
1	Rate M1 Firm	2,271,443	465,977	185,421	16,702	-
2	Rate M2 Firm	378,137	336,728	23,220	237,485	-
3	Rate 01 Firm	641,423	233,272	-	9,727	-
4	Rate 10 Firm	155,398	82,428	-	85,062	-
5	Total General Service	3,446,401	1,118,404	208,642	348,975	-
<u>Wholesale - Utility</u>						
6	Rate M9 Firm	-	-	-	60,750	-
7	Rate M10 Firm	48	-	-	141	-
8	Total Wholesale - Utility	48	-	-	60,891	-
<u>Contract</u>						
9	Rate M4	16,855	-	-	387,823	-
10	Rate M7	-	-	-	147,143	-
11	Rate 20 Storage	-	-	-	-	-
12	Rate 20 Transportation	13,514	-	-	110,097	506,191
13	Rate 100 Storage	-	-	-	-	-
14	Rate 100 Transportation	-	-	-	-	1,895,488
15	Rate T-1 Storage	-	-	-	-	-
16	Rate T-1 Transportation	-	-	-	-	548,986
17	Rate T-2 Storage	-	-	-	-	-
18	Rate T-2 Transportation	-	-	-	-	4,880,297
19	Rate T-3 Storage	-	-	-	-	-
20	Rate T-3 Transportation	-	-	-	-	272,712
21	Rate M5	14,152	-	-	520,981	-
22	Rate 25	42,913	-	-	-	116,643
23	Rate 30	-	-	-	-	-
24	Total Contract	87,433	-	-	1,166,044	8,220,317
25	Total Throughput Volume	3,533,882	1,118,404	208,642	1,575,911	8,220,317

Actual 2013					
System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total
(g)	(h)	(i)	(j)	(k)	(l)
2,626,749	315,338	72,211	16,377	-	3,030,675
602,017	301,229	12,281	261,437	-	1,176,964
830,433	139,168	-	9,933	-	979,534
189,948	73,623	-	94,901	3,602	362,073
4,249,148	829,358	84,492	382,648	3,602	5,549,247
-	-	-	63,240	-	63,240
284	-	-	-	-	284
284	-	-	63,240	-	63,524
29,890	12,923	-	432,002	-	474,815
10,921	-	-	161,362	-	172,283
-	-	-	-	-	-
7,264	-	-	97,110	546,594	650,968
-	-	-	-	-	-
-	-	-	-	1,926,579	1,926,579
-	-	-	-	-	-
-	-	-	-	452,838	452,838
-	-	-	-	-	-
-	-	-	-	4,241,475	4,241,475
-	-	-	-	-	-
-	-	-	-	273,597	273,597
25,761	941	-	497,780	-	524,481
97,661	-	-	-	117,806	215,467
-	-	-	-	-	-
171,497	13,864	-	1,188,254	7,558,890	8,932,505
4,420,929	843,222	84,492	1,634,142	7,562,492	14,545,277

Actual 2014					
System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total
(m)	(n)	(o)	(p)	(q)	(r)
2,942,275	308,880	59,947	17,591	-	3,328,692
670,955	329,963	7,913	275,597	-	1,284,428
913,183	129,135	-	10,749	-	1,053,067
204,812	74,764	-	96,807	3,047	379,430
4,731,226	842,742	67,859	400,744	3,047	6,045,618
-	-	-	67,138	-	67,138
312	-	-	-	-	312
312	-	-	67,138	-	67,450
37,330	11,639	-	435,435	-	484,404
27,984	2,922	-	361,350	-	392,256
-	-	-	-	-	-
8,614	-	-	93,899	433,114	535,626
-	-	-	-	-	-
-	-	-	-	1,710,928	1,710,928
-	-	-	-	-	-
-	-	-	-	470,811	470,811
-	-	-	-	-	-
-	-	-	-	4,305,103	4,305,103
-	-	-	-	-	-
-	-	-	-	288,979	288,979
14,733	-	-	244,625	-	259,358
97,399	-	-	-	89,150	186,550
-	-	-	-	-	-
186,060	14,561	-	1,135,309	7,298,086	8,634,015
4,917,599	857,303	67,859	1,603,190	7,301,132	14,747,083

UNION GAS LIMITED  
Weather Normalized Gas Sales Revenue by Service type and Rate Class  
All Customer Rate Classes  
Year Ended December 31

Line No.	Particulars (\$000's)	Board Approved 2013						Actual 2013						Actual 2014					
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundle	Bundled-T	T-Service	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
<u>General Service</u>																			
1	Rate M1 Firm	693,117	58,944	24,671	889	-	777,621	782,171	37,243	9,813	895	-	830,122	877,544	33,760	7,631	956	-	919,891
2	Rate M2 Firm	84,792	17,612	2,631	11,466	-	116,501	131,556	15,388	538	12,264	562	160,308	148,640	14,441	304	10,983	445	174,813
3	Rate 01 Firm	268,545	66,665	-	1,993	-	337,202	329,041	37,556	-	1,958	-	368,554	351,765	31,093	-	1,882	-	384,740
4	Rate 10 Firm	43,957	13,251	-	12,874	-	70,083	51,782	11,063	-	13,313	235	76,393	55,416	9,585	-	11,340	145	76,486
5	Total General Service	1,090,412	156,472	27,301	27,222	-	1,301,407	1,294,549	101,250	10,351	28,430	797	1,435,377	1,433,365	88,879	7,936	25,161	590	1,555,929
<u>Wholesale - Utility</u>																			
6	Rate M9 Firm	-	-	-	727	-	727	-	-	-	744	-	744	-	-	-	780	-	780
7	Rate M10 Firm	11	-	-	7	-	18	62	-	-	-	-	62	70	-	-	-	-	70
8	Total Wholesale - Utility	11	-	-	734	-	745	62	-	-	744	-	806	70	-	-	780	-	850
<u>Contract</u>																			
9	Rate M4	3,407	-	-	11,786	-	15,193	6,583	597	-	12,306	-	19,485	8,489	334	-	12,845	-	21,668
10	Rate M7	-	-	-	4,127	-	4,127	2,191	-	-	4,109	-	6,299	8,009	251	-	7,724	-	15,984
11	Rate 20 Storage	-	-	-	-	1,057	1,057	-	-	-	-	1,483	1,483	-	-	-	-	1,529	1,529
12	Rate 20 Transportation	3,304	-	-	10,277	10,637	24,219	1,634	-	-	8,832	10,304	20,771	2,051	-	-	7,779	10,074	19,905
13	Rate 100 Storage	-	-	-	-	166	166	-	-	-	-	168	168	-	-	-	-	154	154
14	Rate 100 Transportation	-	-	-	-	15,481	15,481	-	-	-	-	15,656	15,656	-	-	-	-	15,618	15,618
15	Rate T-1 Storage	-	-	-	-	1,400	1,400	-	-	-	-	1,412	1,412	-	-	-	-	1,521	1,521
16	Rate T-1 Transportation	-	-	-	-	9,241	9,241	-	-	-	-	8,562	8,562	-	-	-	-	8,702	8,702
17	Rate T-2 Storage	-	-	-	-	5,976	5,976	-	-	-	-	7,661	7,661	-	-	-	-	8,360	8,360
18	Rate T-2 Transportation	-	-	-	-	36,193	36,193	-	-	-	-	38,896	38,896	-	-	-	-	40,968	40,968
19	Rate T-3 Storage	-	-	-	-	1,345	1,345	-	-	-	-	1,385	1,385	-	-	-	-	1,604	1,604
20	Rate T-3 Transportation	-	-	-	-	3,054	3,054	-	-	-	-	3,072	3,072	-	-	-	-	3,111	3,111
21	Rate M5	2,801	-	-	12,913	-	15,713	5,058	32	-	12,335	-	17,424	3,174	-	-	6,832	-	10,007
22	Rate 25	10,172	-	-	-	3,273	13,445	20,777	-	-	-	3,270	24,047	21,643	-	-	-	2,801	24,443
23	Rate 30	-	-	-	-	-	-	-	-	-	-	80	80	-	-	-	-	58	58
24	Total Contract	19,684	-	-	39,102	87,824	146,610	36,243	629	-	37,581	91,950	166,402	43,367	585	-	35,181	94,501	173,633
25	Subtotal	1,110,107	156,472	27,301	67,058	87,824	1,448,762	1,330,854	101,878	10,351	66,754	92,746	1,602,585	1,476,802	89,463	7,936	61,121	95,090	1,730,413
26	LRAM						-						2,832						786
27	Average Use / Normalized Average Consumption						-						(11,481)						(2,576)
28	Parkway Obligation Rate Variance						-						-						3,585
29	Parkway West Capital Pass Through						-						-						(1,106)
30	Total Revenue						\$ 1,448,762						\$ 1,593,935						\$ 1,731,102

UNION GAS LIMITED

Total Gas Sales Revenue by Service type and Rate Class

All Customer Rate Classes

Year Ended December 31

Line No.	Particulars (\$000's)	Board Approved 2013						Actual 2013						Actual 2014					
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundle	Bundled-T	T-Service	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	<u>General Service</u>																		
1	Rate M1 Firm	693,117	58,944	24,671	889	-	777,621	786,347	37,442	9,865	900	-	834,554	892,930	34,352	7,765	973	-	936,020
2	Rate M2 Firm	84,792	17,612	2,631	11,466	-	116,501	132,946	15,550	544	12,393	568	162,002	152,465	14,812	312	11,265	456	179,311
3	Rate 01 Firm	268,545	66,665	-	1,993	-	337,202	332,962	38,003	-	1,981	-	372,946	359,459	31,773	-	1,923	-	393,155
4	Rate 10 Firm	43,957	13,251	-	12,874	-	70,083	52,348	11,184	-	13,459	238	77,229	56,398	9,755	-	11,541	147	77,841
5	Total General Service	1,090,412	156,472	27,301	27,222	-	1,301,407	1,304,603	102,180	10,409	28,733	805	1,446,730	1,461,252	90,692	8,078	25,702	604	1,586,327
	<u>Wholesale - Utility</u>																		
6	Rate M9 Firm	-	-	-	727	-	727	-	-	-	744	-	744	-	-	-	780	-	780
7	Rate M10 Firm	11	-	-	7	-	18	62	-	-	-	-	62	70	-	-	-	-	70
8	Total Wholesale - Utility	11	-	-	734	-	745	62	-	-	744	-	806	70	-	-	780	-	850
	<u>Contract</u>																		
9	Rate M4	3,407	-	-	11,786	-	15,193	6,583	597	-	12,306	-	19,485	8,489	334	-	12,845	-	21,668
10	Rate M7	-	-	-	4,127	-	4,127	2,191	-	-	4,109	-	6,299	8,009	251	-	7,724	-	15,984
11	Rate 20 Storage	-	-	-	-	1,057	1,057	-	-	-	-	1,483	1,483	-	-	-	-	1,529	1,529
12	Rate 20 Transportation	3,304	-	-	10,277	10,637	24,219	1,634	-	-	8,832	10,304	20,771	2,051	-	-	7,779	10,074	19,905
13	Rate 100 Storage	-	-	-	-	166	166	-	-	-	-	168	168	-	-	-	-	154	154
14	Rate 100 Transportation	-	-	-	-	15,481	15,481	-	-	-	-	15,656	15,656	-	-	-	-	15,618	15,618
15	Rate T-1 Storage	-	-	-	-	1,400	1,400	-	-	-	-	1,412	1,412	-	-	-	-	1,521	1,521
16	Rate T-1 Transportation	-	-	-	-	9,241	9,241	-	-	-	-	8,562	8,562	-	-	-	-	8,702	8,702
17	Rate T-2 Storage	-	-	-	-	5,976	5,976	-	-	-	-	7,661	7,661	-	-	-	-	8,360	8,360
18	Rate T-2 Transportation	-	-	-	-	36,193	36,193	-	-	-	-	38,896	38,896	-	-	-	-	40,968	40,968
19	Rate T-3 Storage	-	-	-	-	1,345	1,345	-	-	-	-	1,385	1,385	-	-	-	-	1,604	1,604
20	Rate T-3 Transportation	-	-	-	-	3,054	3,054	-	-	-	-	3,072	3,072	-	-	-	-	3,111	3,111
21	Rate M5	2,801	-	-	12,913	-	15,713	5,058	32	-	12,335	-	17,424	3,174	-	-	6,832	-	10,007
22	Rate 25	10,172	-	-	-	3,273	13,445	20,777	-	-	-	3,270	24,047	21,643	-	-	-	2,801	24,443
23	Rate 30	-	-	-	-	-	-	-	-	-	-	80	80	-	-	-	-	58	58
24	Total Contract	19,684	-	-	39,102	87,824	146,610	36,243	629	-	37,581	91,950	166,402	43,367	585	-	35,181	94,501	173,633
25	Subtotal	1,110,107	156,472	27,301	67,058	87,824	1,448,762	1,340,908	102,808	10,409	67,058	92,755	1,613,938	1,504,688	91,277	8,078	61,663	95,104	1,760,810
26	LRAM						-						2,832						786
27	Average Use / Normalized Average Consumption						-						(11,481)						(2,576)
28	Parkway Obligation Rate Variance						-						-						3,585
29	Parkway West Capital Pass Through						-						-						(1,106)
30	Total Revenue						\$ 1,448,762						\$ 1,605,289						\$ 1,761,499

UNION GAS LIMITED  
Delivery Revenue by Service type and Rate Class  
All Customer Rate Classes  
Year Ended December 31

Line No.	Particulars (\$000's)	Board Approved 2013						Actual 2013						Actual 2014					
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	<u>General Service</u>																		
1	Rate M1 Firm	303,298	58,944	24,671	889	-	387,801	341,488	37,442	9,865	900	-	389,695	363,507	34,352	7,765	973	-	406,596
2	Rate M2 Firm	19,898	17,612	2,631	11,466	-	51,607	30,914	15,550	544	12,393	568	59,969	29,874	14,812	312	11,265	456	56,720
3	Rate 01 Firm	118,812	41,509	-	928	-	161,249	145,099	23,787	-	980	-	169,866	150,550	20,773	-	1,008	-	172,332
4	Rate 10 Firm	9,524	5,578	-	4,876	-	19,979	11,449	4,778	-	5,129	238	21,594	11,441	4,514	-	4,737	147	20,839
5	Total General Service	451,532	123,643	27,301	18,159	-	620,636	528,950	81,558	10,409	19,402	805	641,124	555,372	74,451	8,078	17,984	603	656,488
	<u>Wholesale - Utility</u>																		
6	Rate M9 Firm	-	-	-	727	-	727	-	-	-	744	-	744	-	-	-	780	-	780
7	Rate M10 Firm	2	-	-	7	-	10	14	-	-	-	-	14	15	-	-	-	-	15
8	Total Wholesale - Utility	2	-	-	734	-	736	14	-	-	744	-	758	15	-	-	780	-	795
	<u>Contract</u>																		
9	Rate M4	514	-	-	11,786	-	12,300	1,477	597	-	12,306	-	14,379	1,442	334	-	12,845	-	14,622
10	Rate M7	-	-	-	4,127	-	4,127	396	-	-	4,109	-	4,505	2,949	251	-	7,724	-	10,924
11	Rate 20 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Rate 20 Transportation	434	-	-	2,425	10,637	13,496	210	-	-	2,063	10,304	12,577	230	-	-	2,097	10,074	12,401
13	Rate 100 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Rate 100 Transportation	-	-	-	-	15,481	15,481	-	-	-	-	15,656	15,656	-	-	-	-	14,995	14,995
15	Rate T-1 Storage	-	-	-	-	1,400	1,400	-	-	-	-	1,412	1,412	-	-	-	-	1,521	1,521
16	Rate T-1 Transportation	-	-	-	-	9,241	9,241	-	-	-	-	8,516	8,516	-	-	-	-	8,562	8,562
17	Rate T-2 Storage	-	-	-	-	5,976	5,976	-	-	-	-	7,661	7,661	-	-	-	-	8,360	8,360
18	Rate T-2 Transportation	-	-	-	-	36,193	36,193	-	-	-	-	38,896	38,896	-	-	-	-	40,652	40,652
19	Rate T-3 Storage	-	-	-	-	1,345	1,345	-	-	-	-	1,385	1,385	-	-	-	-	1,604	1,604
20	Rate T-3 Transportation	-	-	-	-	3,054	3,054	-	-	-	-	3,072	3,072	-	-	-	-	3,111	3,111
21	Rate M5	375	-	-	12,913	-	13,288	688	32	-	12,335	-	13,055	477	-	-	6,832	-	7,310
22	Rate 25	1,200	-	-	-	3,273	4,473	2,784	-	-	-	3,270	6,054	2,639	-	-	-	2,801	5,440
23	Rate 30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Total Contract	2,524	-	-	31,250	86,601	120,375	5,555	629	-	30,812	90,174	127,169	7,738	585	-	29,499	91,679	129,501
25	Subtotal	454,058	123,643	27,301	50,143	86,601	741,747	534,519	82,187	10,409	50,958	90,979	769,051	563,125	75,036	8,078	48,263	92,283	786,785
26	LRAM						-						2,832						786
27	Average Use / Normlized Average Consumption						-						(11,481)						(1,132)
28	Parkway Obligation Rate Variance						-						-						3,585
29	Parkway West Capital Pass Through						-						-						(1,106)
30	Total Revenue					\$	<u>741,747</u>					\$	<u>760,402</u>					\$	<u>788,918</u>



UNION GAS LIMITED  
Total Customers by Service Type and Rate Class  
All Customer Rate Classes  
Year Ended December 31

Line No.	Particulars	Board Approved 2013						Actual 2013						Actual 2014					
		System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total	System Sales	ABC-T	ABC-Unbundled	Bundled-T	T-Service	Total
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	<u>General Service</u>																		
1	Rate M1 Firm	837,301	157,165	72,389	902	-	1,067,757	945,122	92,119	26,110	1,048	-	1,064,399	976,089	83,200	17,858	1,142	-	1,078,289
2	Rate M2 Firm	3,172	2,594	241	771	-	6,778	3,942	1,960	59	762	-	6,723	3,937	2,177	43	783	-	6,940
3	Rate 01 Firm	242,644	80,300	-	343	-	323,287	282,559	41,913	-	585	-	325,057	295,243	35,942	-	595	-	331,780
4	Rate 10 Firm	930	845	-	289	-	2,064	1,217	494	-	300	5	2,016	1,181	539	-	294	5	2,019
5	Total General Service	1,084,047	240,904	72,630	2,305	-	1,399,886	1,232,840	136,486	26,169	2,695	5	1,398,195	1,276,450	121,858	17,901	2,814	5	1,419,028
	<u>Wholesale - Utility</u>																		
6	Rate M9 Firm	-	-	-	3	-	3	-	-	-	2	-	2	-	-	-	2	-	2
7	Rate M10 Firm	1	-	-	1	-	2	2	-	-	-	-	2	2	-	-	-	-	2
8	Total Wholesale - Utility	1	-	-	4	-	5	2	-	-	2	-	4	2	-	-	2	-	4
	<u>Contract</u>																		
9	Rate M4	11	-	-	104	-	115	18	5	-	126	-	149	18	5	-	131	-	154
10	Rate M7	-	-	-	4	-	4	1	-	-	3	-	4	3	1	-	24	-	28
11	Rate 20 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Rate 20 Transportation	4	-	-	20	39	63	2	-	-	18	28	48	3	-	-	17	28	48
13	Rate 100 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Rate 100 Transportation	-	-	-	-	17	17	-	-	-	-	14	14	-	-	-	-	11	11
15	Rate T-1 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Rate T-1 Transportation	-	-	-	-	35	35	-	-	-	-	38	38	-	-	-	-	36	36
17	Rate T-2 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Rate T-2 Transportation	-	-	-	-	29	29	-	-	-	-	22	22	-	-	-	-	22	22
19	Rate T-3 Storage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Rate T-3 Transportation	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	1	1
21	Rate M5	5	-	-	139	-	144	11	-	-	100	-	111	8	1	-	73	-	82
22	Rate 25	50	-	-	-	42	92	43	-	-	-	51	94	38	-	-	-	47	85
23	Rate 30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Total Contract	70	-	-	267	163	500	75	5	-	247	154	481	70	7	-	245	145	467
25	Total Number of Customers	1,084,118	240,904	72,630	2,576	163	1,400,391	1,232,917	136,491	26,169	2,944	159	1,398,680	1,276,522	121,865	17,901	3,061	150	1,419,499

UNION GAS LIMITED  
Revenue from Regulated Storage and Transportation of Gas  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved (a)	2013 Actual (b)	2014 Actual (c)
Revenue from Regulated Storage Services:				
1	C1 Off-Peak Storage	500	389	241
2	Supplemental Balancing Services	2,000	1,841	988
3	Gas Loans	-	56	54
4	C1 Short Term Firm Peak Storage	7,883	4,747	3,235
5	Short Term Storage and Balancing Services Deferral	-	1,811	3,265
6	Total Regulated Storage Revenue Net of Deferral	\$ <u>10,383</u>	\$ <u>8,844</u>	\$ <u>7,783</u>
Revenue from Regulated Transportation Services:				
7	M12 Transportation	120,963	125,302	114,743
8	M12-X Transportation	13,896	13,895	14,536
9	C1 Long Term Transportation	7,039	5,478	5,795
10	C1 Short Term Transportation	11,067	9,713	13,251
11	Gross Exchange Revenue	14,918	24,524	7,919
12	Ratepayer Portion of Exchange Revenue	(13,426)	(21,150)	(7,127)
13	M13 Local Production	424	366	333
14	M16 Transportation	694	719	657
15	Other S&T Revenue	1,423	1,260	1,266
16	Total Regulated Transportation Revenue Net of Deferral	\$ <u>156,997</u>	\$ <u>160,108</u>	\$ <u>151,373</u>

UNION GAS LIMITED

## Other Revenue

Year Ended December 31

Line No.	Particulars (\$000's)	2013 Board Approved	2013 Actual	2014 Actual
1	Delayed payment charges	6,467	6,557	8,214
2	Account opening charges	7,000	6,271	6,553
3	Billing revenue	3,453	2,465	2,064
4	Mid market transactions	2,000	998	1,388
5	Other operating revenue	1,278	1,754	(3,346)
6	Total other revenue	\$ 20,198	\$ 18,045	\$ 14,874

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)	2014 Actual (c)
1	Salaries/Wages	192,786	201,762	211,065
2	Benefits	81,083	76,494	66,488
3	Materials	9,958	8,979	10,576
4	Employee Training	14,330	13,383	12,553
5	Contract Services	66,376	65,931	67,394
6	Consulting	8,172	8,497	8,984
7	General	18,890	21,932	23,042
8	Transportation and Maintenance	9,761	9,176	10,140
9	Company Used Gas	2,611	2,530	2,795
10	Utility Costs	4,682	4,660	5,128
11	Communications	6,380	5,730	5,702
12	Demand Side Management Programs	24,031	24,941	24,450
13	Advertising	2,386	2,283	2,392
14	Insurance	9,056	8,419	8,557
15	Donations	788	2,979	3,451
16	Financial	1,871	959	2,580
17	Lease	4,191	4,125	4,283
18	Cost Recovery from Third Parties	(2,549)	(5,600)	(4,905)
19	Computers	6,465	5,638	6,760
20	Regulatory Hearing & OEB Cost Assessment	4,300	3,253	2,966
21	Outbound Affiliate Services	(13,706)	(12,422)	(16,451)
22	Inbound Affiliate Services	11,888	10,572	17,365
23	Bad Debt	6,250	4,811	4,700
24	Other	139	-	-
25	Total	470,139	469,031	480,017
26	Indirect Capitalization	(51,376)	(56,328)	(63,017)
27	Direct Capitalization	(21,652)	(15,428)	(20,068)
28	Total	397,111	397,275	396,932
29	Unregulated Storage	(12,883)	(13,283)	(14,020)
30	Non Utility Earnings Adjustments	(1,096)	(2,954)	(3,152)
31	Total Non Utility Costs	(13,979)	(16,237)	(17,172)
32	Total Net Utility Operating and Maintenance Expense	\$ 383,132	\$ 381,038	\$ 379,760

UNION GAS LIMITED  
Calculation of Utility Income Taxes  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved (a)	2013 Actual (b)	2014 Actual (c)
	<u>Determination of Taxable Income</u>			
1	Utility income before interest and income taxes	291,239	323,171	330,819
	Adjustments required to arrive at taxable utility income:			
2	Interest expense	(149,464)	(148,014)	(150,239)
3	Utility permanent differences	4,693	1,538	3,110
4		<u>146,468</u>	<u>176,695</u>	<u>183,690</u>
	Utility timing differences			
5	Capital Cost Allowance	(185,314)	(181,729)	(190,751)
6	Depreciation	196,091	192,957	200,368
7	Depreciation through clearing	2,265	1,730	2,799
8	Other	(32,921)	(34,997)	(57,144)
9	Gas Cost Deferrals and Other (current)	-	(40,861)	(107,221)
10		<u>(19,879)</u>	<u>(62,900)</u>	<u>(151,949)</u>
11	Taxable income	<u>\$ 126,589</u>	<u>\$ 113,795</u>	<u>\$ 31,741</u>
	<u>Calculation of Utility Income Taxes</u>			
12	Income taxes (line 11 * line 18)	32,280	30,156	8,411
13	Deferred tax on Gas Cost Deferrals	-	10,828	28,414
14	Deferred tax drawdown	<u>(15,169)</u>	<u>(15,169)</u>	<u>(12,819)</u>
15	Total taxes	<u>\$ 17,111</u>	<u>\$ 25,815</u>	<u>\$ 24,006</u>
	<u>Tax Rates</u>			
16	Federal tax	15.00%	15.00%	15.00%
17	Provincial tax	10.50%	11.50%	11.50%
18	Total tax rate	<u>25.50%</u>	<u>26.50%</u>	<u>26.50%</u>

UNION GAS LIMITED  
Calculation of Capital Cost Allowance (CCA)  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved			2013 Actual			2014 Actual		
		Depreciable	Rate	CCA	Depreciable	Rate	CCA	Depreciable	Rate	CCA
		UCC Balance	(%)	(c)	UCC Balance	(%)	(f)	UCC Balance	(%)	(i)
		(a)	(b)		(d)	(e)		(g)	(h)	
	Class									
1	1 Buildings, structures and improvements, services, meters, mains	1,259,974	4%	50,399	1,265,050	4%	50,602	1,210,375	4%	48,415
2	1 Non-residential building acquired after March 19, 2007	83,527	6%	5,012	83,317	6%	4,999	96,767	6%	5,806
3	2 Mains acquired before 1988	147,495	6%	8,850	147,500	6%	8,850	138,633	6%	8,318
4	3 Buildings acquired before 1988	4,279	5%	214	4,280	5%	214	4,060	5%	203
5	6 Other buildings	173	10%	17	170	10%	17	160	10%	16
6	7 Compression equipment acquired after February 22, 2005	165,697	15%	24,855	155,767	15%	23,365	139,767	15%	20,965
7	8 Compression assets, office furniture, equipment	79,640	20%	15,928	71,470	20%	14,294	90,710	20%	18,142
8	10 Transportation, computer equipment	18,611	30%	5,583	19,683	30%	5,905	20,753	30%	6,226
9	12 Computer software, small tools	7,701	100%	7,701	10,109	100%	10,109	10,511	100%	10,511
10	13 Leasehold improvements (1)	332	N/A	113	4,170	N/A	407	3,279	N/A	308
11	17 Roads, sidewalk, parking lot or storage areas	946	8%	76	950	8%	76	875	8%	70
12	38 Heavy work equipment	6,878	30%	2,063	5,163	30%	1,549	4,583	30%	1,375
13	41 Storage assets	8,019	25%	2,005	6,192	25%	1,548	4,976	25%	1,244
14	45 Computers - Hardware acquired after March 22, 2004	246	45%	111	247	45%	111	136	45%	61
15	49 Transmission pipeline additions acquired after February 23, 2005	204,628	8%	16,370	205,000	8%	16,400	233,225	8%	18,658
16	50 Computers hardware acquired after March 18, 2007	22,934	55%	12,614	15,545	55%	8,550	14,158	55%	7,787
17	51 Distribution pipelines acquired after March 18, 2007	556,733	6%	33,404	578,883	6%	34,733	710,767	6%	42,646
18	Total	\$ 2,567,813		\$ 185,314	\$ 2,573,496		\$ 181,729	\$ 2,683,735		\$ 190,751

Notes:

(1) The CCA rate depends on the type of the leasehold and the terms of the lease.

UNION GAS LIMITED  
 Provision for Depreciation, Amortization and Depletion  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved	2013 Actual	2014 Actual
1	Total provision for depreciation and amortization before adjustments (per page 3)	-	194,687	203,167
2	Adjustments: vehicle depreciation through clearing	-	1,730	2,799
3	Provision for depreciation amortization and depletion	\$ -	\$ 192,957	\$ 200,368

UNION GAS LIMITED  
Provision for Depreciation, Amortization and Depletion  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved			2013 Actual			2014 Actual		
		Average Plant (1)	Rate (%)	Provision	Average Plant (1)	Rate (%)	Provision	Average Plant (1)	Rate (%)	Provision
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Intangible plant:									
1	Franchises and consents	-		-	\$ 1,288	Amortized	\$ 66	1,251	Amortized	64
2	Intangible plant - Other	-		-	6,366	Amortized	122	6,354	Amortized	122
3		-		-	7,654		188	7,605		186
	Local Storage Plant									
4	Structures and improvements	-	2.85%	-	3,620	2.85%	103	3,733	2.85%	106
5	Gas holders - storage	-	2.54%	-	4,574	2.54%	58	4,574	2.54%	116
6	Gas holders - equipment	-	3.54%	-	12,131	3.54%	429	15,060	3.54%	533
7		-		-	20,326		591	23,368		755
	Storage:									
8	Land rights	-	2.10%	-	31,984	2.10%	672	31,984	2.10%	672
9	Structures and improvements	-	2.50%	-	60,358	2.50%	1,510	61,071	2.50%	1,527
10	Wells and lines	-	2.48%	-	89,315	2.48%	2,216	89,625	2.48%	2,223
11	Compressor equipment	-	2.68%	-	237,014	2.68%	6,358	238,811	2.68%	6,400
12	Measuring & regulating equipment	-	3.11%	-	56,023	3.11%	1,744	56,166	3.11%	1,747
13	Other equipment	-		-	2,394		517	2,394		516
14		-		-	477,089		13,017	480,050		13,085
	Transmission:									
15	Land rights	-	1.76%	-	38,792	1.76%	683	39,900	1.76%	706
16	Structures and improvements	-	2.03%	-	52,837	2.03%	1,073	63,190	2.03%	1,283
17	Mains	-	1.98%	-	1,086,116	1.98%	21,505	1,130,323	1.98%	22,457
18	Compressor equipment	-	3.23%	-	343,424	3.23%	11,093	346,044	3.23%	11,177
19	Measuring & regulating equipment	-	2.60%	-	152,672	2.60%	3,969	165,093	2.60%	4,321
20		-		-	1,673,841		38,322	1,744,551		39,944
	Distribution - Southern Operations:									
21	Land rights	-	1.65%	-	5,982	1.65%	99	6,235	1.65%	103
22	Structures and improvements	-	2.22%	-	120,529	2.22%	2,702	129,561	2.22%	2,902
23	Services - metallic	-	2.81%	-	112,566	2.81%	3,163	116,031	2.81%	3,261
24	Services - plastic	-	2.51%	-	779,227	2.51%	19,559	796,934	2.51%	20,003
25	Regulators	-	5.00%	-	70,066	5.00%	3,553	63,131	5.00%	3,204
26	Regulator and meter installations	-	2.80%	-	67,962	2.80%	1,875	68,909	2.80%	1,929
27	Mains - metallic	-	2.83%	-	419,865	2.83%	11,882	434,385	2.83%	12,293
28	Mains - plastic	-	2.31%	-	533,219	2.31%	12,317	548,519	2.31%	12,671
29	Measuring & regulating equipment	-	3.66%	-	32,098	3.66%	1,175	33,601	3.66%	1,230
30	Meters	-	3.82%	-	227,155	3.82%	8,677	241,700	3.82%	9,236
31	Other equipment	-		-	-		-	-		-
32		-		-	\$ 2,368,671		\$ 65,002	\$ 2,439,005		\$ 66,832



UNION GAS LIMITED  
Provision for Depreciation, Amortization and Depletion  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved			2013 Actual			2014 Actual		
		Average Plant (1)	Rate (%)	Provision	Average Plant (1)	Rate (%)	Provision	Average Plant (1)	Rate (%)	Provision
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Distribution plant - Northern & Eastern Operations:									
1	Land rights	-	1.71%	-	\$ 9,357	1.71%	\$ 160	9,535	1.71%	163
2	Structures & improvements	-	2.41%	-	62,752	2.41%	1,512	63,772	2.41%	1,537
3	Services - metallic	-	3.22%	-	96,335	3.22%	3,102	98,889	3.22%	3,184
4	Services - plastic	-	2.60%	-	383,396	2.60%	9,968	399,976	2.60%	10,399
5	Regulators	-	5.00%	-	26,169	5.00%	1,337	24,636	5.00%	1,232
6	Regulator and meter installations	-	2.92%	-	30,434	2.92%	872	30,124	2.92%	879
7	Mains - metallic	-	3.02%	-	384,302	3.02%	11,606	405,255	3.02%	12,239
8	Mains - plastic	-	2.38%	-	211,238	2.38%	5,027	214,401	2.38%	5,103
9	Compressor equipment	-		-	-	-	-	-	-	-
10	Measuring & regulating equipment	-	3.77%	-	116,193	3.77%	4,380	120,627	3.77%	4,548
11	Meters	-	4.03%	-	57,142	4.03%	2,303	62,000	4.03%	2,499
12	Other distribution equipment	-		-	-		-	-	-	-
13		-		-	1,377,318		40,268	1,429,216		41,783
	General:									
14	Structures and improvements	-	1.92%	-	47,733	1.92%	1,283	48,158	1.92%	1,646
15	Office furniture and equipment	-	6.67%	-	11,323	6.67%	747	11,624	6.67%	769
16	Office equipment - computers	-	25.00%	-	74,723	25.00%	18,562	75,583	25.00%	18,826
17	Transportation equipment	-	13.27%	-	47,778	13.27%	6,386	51,225	13.27%	6,844
18	Heavy work equipment	-	6.92%	-	14,609	6.92%	1,018	14,672	6.92%	1,023
19	Tools and other equipment	-	6.67%	-	30,492	6.67%	2,010	32,252	6.67%	2,132
20	Communications equipment & structures	-	6.67%	-	14,328	6.67%	920	14,266	6.67%	942
21	Other equipment	-		-	-		-	-	-	-
22		-		-	240,986		30,926	247,780		32,182
23	Regulatory Assets	-		-	188,715		6,373	251,103		8,400
24	Sub-total	-		-	6,354,599		194,687	6,622,677		203,167
25	Total provision for depreciation and amortization			-			\$ 194,687			203,167
26	Depreciation through clearing			-			1,730			2,799
27		-		-	\$ 6,354,599		\$ 192,957	\$ 6,622,677		\$ 200,368

Notes:

- (1) A simple average of the opening and closing plant balances was used to calculate the annual depreciation provision.

UNION GAS LIMITED  
Capital Expenditure by Function  
Includes IDC and Overheads  
Year Ended December 31

Line No.	Particulars (\$000's)	2013 Board-Approved (a)	2013 Actual (b)	2014 Actual (c)
1	Storage	11,562	5,742	7,418
2	Transmission	113,795	106,647	191,089
3	Distribution	131,797	164,946	162,379
4	General	37,215	35,167	47,458
5	Other	53,333	55,696	68,300
6	Total	\$ 347,702	\$ 368,198	\$ 476,644
	Less: Parkway West Reliability, and Brantford- Kirkwall/Parkway D Project	80,000	51,966	139,085
		\$ 267,702	\$ 316,232	\$ 337,559

UNION GAS LIMITED  
Statement of Utility Rate Base  
Year Ended December 31

Line No.	Particulars (\$000s)	2013 Board-Approved (a)	2013 Actual (b)	2014 Actual (c)
	<u>Gas Utility Plant</u>			
1	Gross plant at cost	6,361,532	6,401,183	6,674,254
2	Less: accumulated depreciation	<u>(2,754,070)</u>	<u>(2,746,177)</u>	<u>(2,868,946)</u>
3	Net utility plant	<u>3,607,462</u>	<u>3,655,006</u>	<u>3,805,308</u>
	<u>Working Capital and Other Components</u>			
4	Cash working capital	20,007	20,552	20,665
5	Gas in storage and line pack gas	163,109	142,677	174,285
6	Balancing gas	72,963	68,352	65,947
7	ABC receivable (gas in storage)	(44,901)	(30,988)	(32,327)
8	Inventory of stores, spare equipment	29,618	28,636	28,192
9	Prepaid and deferred expenses	4,955	5,008	5,133
10	Customer deposits	(48,231)	(35,638)	(35,783)
11	Customer interest	<u>(764)</u>	<u>(429)</u>	<u>(307)</u>
12	Total working capital and other components	<u>196,757</u>	<u>198,170</u>	<u>225,805</u>
13	Total rate base before deduction of accumulated deferred income taxes	3,804,218	3,853,176	4,031,113
14	Accumulated deferred income taxes	<u>(69,686)</u>	<u>(69,321)</u>	<u>(54,695)</u>
15	Total rate base	<u>\$ 3,734,532</u>	<u>\$ 3,783,855</u>	<u>\$ 3,976,418</u>

UNION GAS LIMITED

Allocation of Fuel

<u>Line</u> <u>No.</u>	<u>Particulars (GJ)</u>	<u>Board-Approved</u> (a)	<u>2014 Actual</u> (b)
1	M12	3,616,843	1,862,928
2	Other	1,057,714	1,093,774
3	Total Fuel	<u>4,674,557</u>	<u>2,956,702</u>

UNION GAS LIMITED  
Earnings Sharing Calculation  
Calendar Year Ending December 31, 2014

Line No.	Particulars (\$000s)	2014 (a)	Unregulated Storage (b)	Adjustments (c)	2014 Utility (d)=(a)-(b)+(c)
	Operating Revenues				
1	Gas Sales	1,778,509	-	(17,010) i	1,761,499
2	Transportation	183,393	(356)	(32,375) ii	151,373
3	Storage	82,329	74,546	-	7,783
4	Other	21,201	-	(6,328) iii	14,874
5		<u>2,065,433</u>	<u>74,190</u>	<u>(55,713)</u>	<u>1,935,529</u>
	Operating Expenses				
6	Cost of gas	977,185	1,657	(17,010) i	958,517
7	Operating and maintenance expenses	396,932	14,020	(3,152) iv	379,760
8	Depreciation	210,640	10,272	-	200,368
9	Other financing	-	-	689 v	689
10	Property and other taxes	<u>65,791</u>	<u>1,468</u>	<u>-</u>	<u>64,324</u>
11		<u>1,650,547</u>	<u>27,417</u>	<u>(19,473)</u>	<u>1,603,658</u>
	Other				
12	Gain / (Loss) on sale of assets	(768)	(901)	-	133
13	Other / Huron Tipperary	(1,483)	(1,483)	-	-
14	Gain / (Loss) on foreign exchange	<u>(1,814)</u>	<u>(43)</u>	<u>585</u> vi	<u>(1,185)</u>
15		<u>(4,065)</u>	<u>(2,428)</u>	<u>585</u>	<u>(1,052)</u>
16	Earnings before interest and taxes	<u>410,820</u>	<u>44,346</u>	<u>(35,654)</u>	330,819
17	Income taxes				<u>24,006</u>
18	Total utility income subject to earnings sharing				<u>306,813</u>
	Less debt and preference share return components				
19	Long-term debt				150,959
20	Unfunded short-term debt				(720)
21	Preferred dividend requirements				<u>2,825</u>
22					<u>153,064</u>
	Less shareholder portions of:				
23	Net short-term storage revenue (after tax)				105
24	Net optimization activity (after tax)				<u>582</u>
25					<u>687</u>
26	Earnings subject to sharing				<u>153,062</u>
27	Common equity				1,431,510
28	Return on common equity (line 26 / line 27)				10.69%
29	Benchmark return on common equity + 100 basis points				9.93%
30	50% earnings sharing % (line 28 - line 29, maximum 1%)				0.76%
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%)				5,457
33	90% earnings sharing \$ (line 27 x line 31 x 90%)				<u>-</u>
34	Total earnings sharing \$ (line 32 + line 33)				<u>5,457</u>
35	Pre-tax earnings sharing (line 34 / (1 minus tax rate))				<u>7,424</u>

Notes:

i Reclassification of optimization revenue as cost of gas

ii Exclusion of 2012 FT RAM revenue

iii Demand-side management incentive

iv Donations (3,425)  
CDM program 273  
(3,152)

v Facility fees and customer deposit interest

vi Foreign exchange gain on bank balances

UNION GAS LIMITED  
Continuity of Property, Plant and Equipment  
Calendar Year Ending December 31, 2014

Line No.	Particulars (\$000's)	Balance Dec. 31/13 (a)	Capital Additions (b)	Transfers (c)	Retirements (d)	Balance Dec. 31/14 (e)
	<u>Unregulated Gas Plant in Service:</u>					
	Underground storage plant:					
1	Land	\$ 2,009	87			\$ 2,096
2	Land rights	21,667				21,667
3	Structures and improvements	20,491	700	426	(21)	21,596
4	Wells and lines	91,772	464	3	(58)	92,181
5	Compressor equipment	147,524	4,936	2,843	(1,492)	153,811
6	Measuring & regulating equipment	22,294	183	3	(40)	22,440
7	Base pressure gas	22,928				22,928
8	Other equipment	-				-
9		<u>\$ 328,685</u>	<u>6,370</u>	<u>3,275</u>	<u>(1,611)</u>	<u>\$ 336,719</u>
	General plant:					
10	Land	\$ 17				\$ 17
11	Structures & improvements	1,535	34		(3)	1,566
12	Office furniture & equipment	378	18		(2)	394
13	Office equipment - computers	6,524	732		(539)	6,717
14	Transportation equipment	2,271	305		(225)	2,351
15	Heavy work equipment	664	47		(37)	674
16	Tools & work equipment	992	163		(47)	1,108
17	Communication equipment	438	30		(1)	467
18	Other general equipment	-				-
19		<u>\$ 12,819</u>	<u>1,329</u>	<u>-</u>	<u>(854)</u>	<u>\$ 13,294</u>
20	Total gas plant in service	<u>\$ 341,504</u>	<u>7,699</u>	<u>3,275</u>	<u>(2,465)</u>	<u>\$ 350,013</u>
21	Gas plant under construction	<u>10,533</u>	<u>1,342</u>			<u>11,875</u>
22	Total unregulated property plant and equipment	<u>\$ 352,037</u>	<u>9,041</u>	<u>3,275</u>	<u>(2,465)</u>	<u>\$ 361,888</u>

UNION GAS LIMITED  
Continuity of Accumulated Depreciation  
Calendar Year Ending December 31, 2014

Line No.	Particulars (\$000's)	Balance Dec. 31/13 (a)	Transfers (b)	Provisions (c)	Retirements (d)	Net Salvage /(Costs) (e)	Balance Dec. 31/14 (f)
	<u>Unregulated Gas Plant in Service:</u>						
	Underground storage plant:						
1	Land rights	\$ 7,540		431			\$ 7,971
2	Structures & improvements	7,571	233	633	(6)		8,431
3	Wells and lines	25,889	2	1,948	(10)		27,829
4	Compressor equipment	40,457	1,431	4,497	(800)		45,585
5	Measuring & regulating equipment	9,625	2	502	(15)		10,114
6		<u>\$ 91,082</u>	<u>1,668</u>	<u>8,011</u>	<u>(831)</u>	<u>-</u>	<u>\$ 99,930</u>
	General plant:						
7	Structures & improvements	393		68	(3)		458
8	Office furniture & equipment	176		32	(2)		206
9	Office equipment - computers	3,040		1,725	(539)		4,226
10	Transportation equipment	801		260	(226)	17	852
11	Heavy work equipment	65		39	(37)		67
12	Tools and other equipment	523		88	(46)		565
13	Communication equipment	245		39	(1)		283
14		<u>\$ 5,243</u>	<u>-</u>	<u>2,251</u>	<u>(854)</u>	<u>17</u>	<u>\$ 6,657</u>
15	Total unregulated gas plant in service	<u>\$ 96,325</u>	<u>1,668</u>	<u>10,262</u>	<u>(1,685)</u>	<u>17</u>	<u>\$ 106,587</u>

UNION GAS LIMITED  
Provision for Depreciation,  
Amortization and Depletion  
Calendar Year Ending December 31, 2014

Line		
<u>No.</u>	<u>Particulars (\$000's)</u>	
		UNREGULATED
1	Total unregulated provision for depreciation and amortization before adjustments (per page 2)	10,262
	Adjustments:	
2	Vehicle depreciation through clearing	(34)
3	Asset Retirement Obligation expense for Unregulated storage wells	44
		<hr/>
4	Unregulated provision for depreciation amortization and depletion	<u><u>10,272</u></u>



UNION GAS LIMITED  
Provision for Depreciation,  
Amortization and Depletion  
Calendar Year Ending December 31, 2014

Line No.	Particulars (\$000's)	Average Plant (1) (a)	Rate (%) (b)	Total Provision
	Storage:			
1	Land rights	\$ 21,667	Allocation	\$ 431
2	Structures and improvements	19,456	Allocation	633
3	Wells and lines	89,272	Allocation	1,948
4	Compressor equipment	149,545	Allocation	4,497
5	Measuring & regulating equipment	20,602	Allocation	502
6	Other equipment			
7		<u>\$ 300,543</u>		<u>\$ 8,011</u>
	General:			
8	Structures & improvements	\$ 1,551	Allocation	\$ 68
9	Office furniture and equipment	386	Allocation	32
10	Office equipment - computers	6,620	Allocation	1,725
11	Transportation equipment	2,311	Allocation	260
12	Heavy work equipment	669	Allocation	39
13	Tools and other equipment	1,050	Allocation	88
14	Communications equipment	453	Allocation	39
15	Other equipment	<u>-</u>		
16		<u>\$ 13,040</u>		<u>\$ 2,251</u>
17	Sub-total	<u>313,583</u>		<u>10,262</u>
18	Total unregulated provision for depreciation and amortization before adjustments			\$ 10,262
19	Vehicle depreciation through clearing			(34)
20	Asset Retirement Obligation expense for Unregulated storage wells			44
21	Unregulated provision for depreciation amortization and depletion	<u>313,583</u>		<u>\$ 10,272</u>

Notes:

- (1) Average of the opening and closing plant balances (excluding fully depreciated assets) was used to calculate the annual depreciation provision.

UNION GAS LIMITED  
Service Quality Indicator Results

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM
G.2.1.9.A – TELEPHONE ANSWERING PERFORMANCE
G.2.1.9.A.1 Call Answering Service Level (CASL)
Measurement Calculation: CASL = Number of calls reaching a distributor's general inquiry number answered within 30 seconds divided by the number of calls received by a distributor's general inquiry number (CASL should be rounded to the first decimal number, e.g. 74.45% becomes 74.5%)
OEB Approved Standard: Yearly performance shall be 75% with a minimum monthly standard of 40%

Month	Number of Calls Reaching a Distributor's General Inquiry Number Answered Within 30 Seconds (1)	Number of Calls Received by a Distributor's General Inquiry Number (2)	Call Answering Service Level (%) (3 = 1 / 2 * 100)
Jan-14	65,762	84,128	78.2
Feb-14	68,651	84,532	81.2
Mar-14	94,856	129,894	73.0
Apr-14	81,844	110,362	74.2
May-14	94,855	147,577	64.3
Jun-14	72,074	104,437	69.0
Jul-14	68,425	93,493	73.2
Aug-14	96,342	122,697	78.5
Sep-14	75,591	111,111	68.0
Oct-14	69,270	109,632	63.2
Nov-14	97,065	118,972	81.6
Dec-14	60,782	68,726	88.4
Total	945,517	1,285,561	73.5

G.2.1.9.A.2 Abandon Rate (AR)
Measurement Calculation: AR = Number of calls abandoned while waiting for a live agent divided by the total number of calls requesting to speak to a live agent. (AR should be rounded to the first decimal number, e.g. 8.55% becomes 8.6%)
OEB Approved Standard: Performance shall not exceed 10% on a yearly basis

Month	Number of Calls abandoned while waiting for a live agent (1)	Total Number of Calls requesting to speak to a live agent (2)	Abandon Rate (%) (3 = 1 / 2 * 100)
Jan-14	2,192	65,229	3.4
Feb-14	1,682	65,443	2.6
Mar-14	5,428	97,980	5.5
Apr-14	3,703	82,707	4.5
May-14	8,242	111,906	7.4
Jun-14	4,324	81,704	5.3
Jul-14	3,382	75,511	4.5
Aug-14	3,308	98,188	3.4
Sep-14	4,492	90,586	5.0
Oct-14	6,935	91,168	7.6
Nov-14	2,440	98,708	2.5
Dec-14	1,030	55,933	1.8
Total	47,158	1,015,063	4.6

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM						
G.2.1.9.B – BILLING PERFORMANCE						
G.2.1.9.B - Billing Performance						
Measurement Calculation: The billing performance standard is a quality assurance standard. The standard requires gas distributors to have a verifiable quality assurance program in place. No specific metric is attached to this requirement.						
OEB Approved Standard: Manual checks must be done to validate data when meter reads fall outside criteria, as set out in the quality assurance program, for excessively high or low usage.						

TABLE B

Month	Total Number of Billings	Total Number of Manual Checks Done as	Total Number of Manual Checks Done When Meter Reads Show Excessively High	Brief Explanation for Excessively High Usage (In 100 Words or less)	Total Number of Manual Checks Done When Meter Reads Show Excessively Low	Brief Explanation for Excessively Low Usage (In 100 Words or less)
	(1)	(2)	(3)	(4)	(5)	(6)
Jan-14	1,437,151	8,952	2,549	Change in load, previously low	3,469	Vacant, seasonal use (crop
Feb-14	1,432,555	7,098	3,352	estimate/read, previous vacant,	750	dryer), stopped meter,
Mar-14	1,418,619	9,897	6,269	seasonal use.	487	previous high estimate/read.
Apr-14	1,405,936	13,151	10,887		397	
May-14	1,407,993	14,492	12,479		326	
Jun-14	1,382,610	16,780	14,961		181	
Jul-14	1,408,621	17,716	16,086		175	
Aug-14	1,408,628	18,170	16,376		220	
Sep-14	1,411,999	16,706	13,487		302	
Oct-14	1,407,601	13,599	10,042		400	
Nov-14	1,403,336	10,461	6,254		775	
Dec-14	1,398,714	7,866	4,521		70	
Total	16,923,763	154,888	117,263		7,552	

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM			
G.2.1.9.C – METER READING PERFORMANCE			
G.2.1.9.C.1 Meter Reading Performance Measurement (MRPM)			
Measurement Calculation: MRPM = Number of meters with no read for 4 consecutive months or more divided by the total number of active meters to be read (MRPM should be rounded to the first decimal number, e.g. 0.45% becomes 0.5%)			
OEB Approved Standard: Measurement shall not exceed 0.5% on a yearly basis			

Month	Number of meters with no read for consecutive 4 months or more (1)	Total number of active meters to be read (2)	Meter reading performance measurement (%) (3 = 1 / 2 * 100)
Jan-14	1,918	1,393,165	0.1
Feb-14	3,849	1,394,030	0.3
Mar-14	15,530	1,394,424	1.1
Apr-14	21,792	1,394,783	1.6
May-14	4,786	1,394,448	0.3
Jun-14	2,211	1,394,859	0.2
Jul-14	1,552	1,395,070	0.1
Aug-14	1,648	1,396,681	0.1
Sep-14	1,884	1,399,563	0.1
Oct-14	1,734	1,403,748	0.1
Nov-14	1,516	1,408,900	0.1
Dec-14	1,774	1,411,583	0.1
Total	60,194	16,781,254	0.4

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM			
G.2.1.9.D – SERVICE APPOINTMENT RESPONSE TIME			
G.2.1.9.D.1 - Appointments Met Within the Designated Time Period			
Measurement Calculation: AMWDTP - Number of appointments met within the 4 hour scheduled time/date divided by total number of appointments scheduled in the reporting month.			
OEB Approved Standard: The minimum performance standard for this measurement shall be 85% averaged over a year.			

	Number of Appointments Met Within the 4-Hour Scheduled Time/Date	Number of Appointments Scheduled in the Reporting Month	Appointments Met Within the Designated Time Period (%)
Month	(1)	(2)	(3 = 1/2*100)
Jan-14	14,394	14,670	98.1%
Feb-14	12,545	12,734	98.5%
Mar-14	16,086	16,279	98.8%
Apr-14	15,614	15,782	98.9%
May-14	14,033	14,255	98.4%
Jun-14	13,815	14,091	98.0%
Jul-14	14,202	14,792	96.0%
Aug-14	13,379	13,909	96.2%
Sep-14	17,487	18,146	96.4%
Oct-14	20,276	20,891	97.1%
Nov-14	17,161	17,563	97.7%
Dec-14	12,407	12,559	98.8%
TOTAL	181,399	185,671	97.7%

G.2.1.9.D.2 - Time to Reschedule a Missed Appointment (TRMA)			
Measurement Calculation: TRMA - The distributor must contact the customer to reschedule the work within 2 hours of the end of the original appointment time.			
OEB Approved Standard: 100% of affected customers will receive a call offering to reschedule work within 2 hours of the end of the original appointment time.			

	Total Number of Customer Appointments Missed	Total Number of Customers Who Did Receive a Call Offering to Reschedule Within 2 Hrs. Of the End of the Original Appointment Time Missed	Brief Explanation of the Reasons Customers did not Receive a Call Within the Time Limit (in 50 words)	Percentage of Customers Who Did Not Receive a Call Within 2 Hrs
Month	(1)	(2)	(3)	(4 = 2/1 *100)
Jan-14	276	275	Employee was enroute, but then he was assigned to an Emergency and forgot to mention to Dispatch to change the appointment with customer	99.6%
Feb-14	189	187	1) Employee signed off with call on his screen -	98.9%
Mar-14	193	192	Order did not get printed and customer did not receive a phone call	99.5%
Apr-14	168	168		100.0%
May-14	222	222		100.0%
Jun-14	276	276		100.0%
Jul-14	590	590		100.0%
Aug-14	530	530		100.0%
Sep-14	659	659		100.0%
Oct-14	615	614	Commitment missed as there was a confusion with work orders	99.8%
Nov-14	402	401	Employee missed the commitment as he was at a Leak Repair that went all evening and night. Called was not assigned to other employee	99.8%
Dec-14	152	152		100.0%
TOTAL	4272	4266		99.9%

Note:

\*The corrective action for each of these missed commitments was to remind the employee to ask for assistance from teammates if could not call customer to recommit in the required timeframe

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM			
G.2.1.9.E – GAS EMERGENCY RESPONSE			
G.2.1.9.E.1 - Percentage of Emergency Calls Responded Within One Hour (ECRWOH)			
Measurement Calculation: ECRWOH - Number of emergency calls responded to within 60 minutes divided by total number of emergency calls in the year.			
OEB Approved Standard: The minimum performance standard shall be that 90% of customers have received a response within 60 minutes of their call reaching a live person. The standard shall be calculated on an annual basis.			

	Number of Emergency Calls Responded to Within 60 Minutes	Total Number of Emergency Calls Received	Percentage of Emergency Calls Responded within 60 Minutes (%)
Month	(1)	(2)	(3 = 1/2*100)
Jan-14	1,530	1,578	97.0%
Feb-14	1,421	1,454	97.7%
Mar-14	1,393	1,419	98.2%
Apr-14	1,080	1,096	98.5%
May-14	1,326	1,358	97.6%
Jun-14	1,145	1,174	97.5%
Jul-14	1,175	1,199	98.0%
Aug-14	1,195	1,216	98.3%
Sep-14	1,268	1,293	98.1%
Oct-14	1,275	1,300	98.1%
Nov-14	1,213	1,245	97.4%
Dec-14	944	971	97.2%
TOTAL	14,965	15,303	97.8%

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM			
G.2.1.9.F – CUSTOMER COMPLAINT WRITTEN RESPONSE			
G.2.1.9.F.1 Number of Days to provide a written response (NDPAWR)			
Measurement Calculation: NDPAWR = Number of complaints requiring response responded to within 10 days divided by the number of number of complaints requiring a written response. (NDPAWR should be rounded to the first decimal number, e.g. 79.45% becomes 79.5%)			
OEB Approved Minimum Standard: measurement shall be that 80% of customers have received written reponses in 10 days of the distributor receiving the complaint			

Month	Number of complaints requiring a written response responded to within 10 days (1)	Number of complaints requiring a written response (2)	NDPAWR Percentage (%) (3 = 1 / 2 * 100)
Jan-14	14	14	100.0
Feb-14	9	9	100.0
Mar-14	8	8	100.0
Apr-14	12	12	100.0
May-14	6	6	100.0
Jun-14	11	11	100.0
Jul-14	12	12	100.0
Aug-14	9	9	100.0
Sep-14	9	9	100.0
Oct-14	11	11	100.0
Nov-14	14	14	100.0
Dec-14	11	11	100.0
Total	126	126	100.0

G.2.1.9 SERVICE QUALITY REQUIREMENTS (SQR) FORM
G.2.1.9.G – RECONNECTION RESPONSE TIME
G.2.1.9.G.1 - Number of Days to Reconnect a Customer (NDTRAC)
Measurement Calculation: NDTRAC - Number of reconnections completed within 2 business days divided by total number of reconnections completed.
OEB Approved Standard: Minimum standard shall be that 85% of customers are reconnected within 2 business days of bringing their accounts into good standing. This will be tracked on a monthly basis

	Number of Reconnections Completed Within 2 Business Days	Total Number of Reconnections Completed	Number of Days to Reconnect a Customer Percentage (%)
Month	(1)	(2)	(3 = 1/2*100)
Jan-14	117	122	95.9%
Feb-14	72	74	97.3%
Mar-14	84	88	95.5%
Apr-14	180	182	98.9%
May-14	380	403	94.3%
Jun-14	368	386	95.3%
Jul-14	553	582	95.0%
Aug-14	624	667	93.6%
Sep-14	1,425	1,545	92.2%
Oct-14	2,400	2,596	92.4%
Nov-14	1,151	1,331	86.5%
Dec-14	255	305	83.6%
TOTAL	7,609	8,281	91.9%



**ALLOCATION AND DISPOSITION OF 2014 DEFERRAL ACCOUNT BALANCES**  
**AND 2014 EARNINGS SHARING AMOUNT**

The purpose of this evidence is to address the allocation and disposition of 2014 deferral account balances identified at Exhibit A, Tab 1, Appendix A, Schedule 1, UPDATED and the 2014 earnings sharing amount identified at Exhibit A, Tab 2, Appendix B, Schedule 1.

The allocation of 2014 deferral account balances to rate classes appears at Exhibit A, Tab 3, Appendix A, Schedule 1, UPDATED, page 1. The allocation of the 2014 earnings sharing amount to rate classes appears at Exhibit A, Tab 3, Appendix A, Schedule 1, UPDATED, page 2. Exhibit A, Tab 3, Appendix A, Schedule 2, UPDATED provides the unit disposition rates for Union's in-franchise rate classes and summarizes the balances to be disposed of for Union's ex-franchise rate classes. Exhibit A, Tab 3, Appendix A, Schedule 3, UPDATED provides the bill impacts of the proposed disposition for general service customers in Union South and Union North.

With the exception of the Normalized Average Consumption ("NAC") Account (179-133), the Parkway West Project Costs Account (179-136) and the Parkway Obligation Account (179-138), the allocation of 2014 deferral account balances to rate classes is consistent with the allocation methodologies approved by the Board in EB-2014-0145 (Union's 2013 Deferral Account Disposition proceeding) or in EB-2011-0210 (Union's 2013 Cost of Service

proceeding).

**2014 GAS SUPPLY RELATED DEFERRAL ACCOUNTS**

The gas supply related deferral accounts include the Spot Gas Variance Account (179-107), the Unabsorbed Demand Cost (“UDC”) Variance Account (179-108), the Gas Supply Review Account (179-128), and the Transportation Optimization Account (179-131).

**SPOT GAS VARIANCE ACCOUNT**

Union proposes to allocate the portion of the Spot Gas Variance Account related to Union South bundled direct purchase (“DP”) load balancing costs on a contract specific basis, based on the March 31, 2015 shortfall position. Each DP contract’s shortfall position, as a proportion of the total March 31, 2015 shortfall, will be used to determine its allocation of Union South bundled DP load balancing costs. This approach ensures load balancing costs are recovered solely from the Union South bundled DP customers that caused Union to purchase spot gas for load balancing purposes.

The calculation of the Union South load balancing costs for bundled DP customers also creates a spot gas credit to Union South sales service customers, as shown at Exhibit A, Tab 1, Table 1, line 6, column (b). The allocation of the portion of the Spot Gas Variance Account applicable to Union South sales service customers is based on actual sales service volumes for the period November 1, 2014 to March 31, 2015 by rate class.

1    **UNABSORBED DEMAND COST VARIANCE**

2    Union proposes that the balance in the Unabsorbed Demand Cost (“UDC”) Variance Account  
3    (179-108) related to Union North be allocated to the firm Rate 01, Rate 10 and Rate 20 sales  
4    service and bundled DP customers in proportion to 2013 Board-approved excess of peak day  
5    demands over average annual demands. This allocation is consistent with the allocation of  
6    UDC in approved 2014 rates.

7  
8    There is no balance in the UDC Variance Account related to Union South at December 31,  
9    2014.

10  
11   **GAS SUPPLY REVIEW**

12   There is no balance in the Gas Supply Review Account (179-128) at December 31, 2014.

13  
14   **TRANSPORTATION OPTIMIZATION**

15   Union proposes to allocate the balance in the Upstream Transportation Optimization Account  
16   (179-131) between Union North and Union South rate classes based on the upstream  
17   transportation contracts used to serve each delivery area. Transportation optimization net  
18   revenues generated using upstream transportation long-haul contracts and STS contracts  
19   designed to serve Union North (with delivery points of SSMDA, WDA, NDA, NCDA and  
20   EDA) have been allocated to Union North. Transportation optimization net revenues  
21   generated using upstream transportation long-haul contracts designed to serve Union South

1 (the CDA delivery point) have been allocated to Union South. Specifically, with respect to  
2 capacity assignments, the net revenue from each capacity assignment has been attributed to  
3 either the Union North or Union South based on the delivery point.

4  
5 Union proposes that the portion of the balance related to Union North be allocated to rate  
6 classes in proportion to the allocation of 2013 Board-approved TCPL FT transportation  
7 demand costs. This approach ensures that transportation optimization margin is allocated to  
8 Union North sales service and bundled DP customers consistent with the manner in which this  
9 margin is included in approved gas supply transportation rates.

10  
11 Union proposes that the portion of the balance related to Union South be allocated to sales  
12 service customers only. This approach is consistent with the manner in which this margin is  
13 included in approved gas supply transportation rates.

14  
15 **2014 NON- GAS SUPPLY RELATED DEFERRAL ACCOUNTS**

16 Non-gas supply related deferral accounts can be divided into two groups: storage-related  
17 deferral accounts and other deferral accounts.

18  
19 **STORAGE-RELATED DEFERRAL ACCOUNTS**

20 Union proposes to allocate the balance in the Short-Term Storage and Other Balancing  
21 Services Deferral Account (179-70) between Union North and Union South in proportion to

1 the 2013 Board-approved allocation of storage space related costs per the STORAGEXCESS  
2 allocator.

3  
4 Union proposes to allocate the portion of the balance related to Union North to firm Rate 01,  
5 Rate 10 and Rate 20 in proportion to the 2013 Board-approved excess of peak day demands  
6 over average day demands. This approach is consistent with the 2013 Board-approved  
7 allocation of storage demand costs to Union North rate classes.

8  
9 Union proposes to allocate the portion of the balance related to Union South to Union South  
10 rate classes in proportion to the 2013 Board-approved design (peak) day demand.

11  
12 The proposed disposition is also consistent with the allocation methodology for storage and  
13 other balancing services margin approved in Union's 2014 rates.

14  
15 **OTHER DEFERRAL ACCOUNTS**

16 There is no balance in the Unbundled Services Unauthorized Storage Overrun Deferral  
17 Account (179-103) at December 31, 2014.

18  
19 Union proposes to allocate the balance in the Gas Distribution Access Rule ("GDAR") Costs  
20 Deferral Account (179-112) in proportion to the Board-approved average number of customers  
21 in Rate 01 and Rate M1 in approved 2013 rates.

1 There is no balance in the Carbon Dioxide Offset Credits Deferral Account (179-117) at  
2 December 31, 2014.

3  
4 There is no balance in the Average Use Per Customer Deferral Account (179-118) at  
5 December 31, 2014.

6  
7 Union proposes to allocate the balance in the IFRS Conversion Costs Account (179-120) to  
8 rate classes in proportion to 2013 Board-approved Administrative & General O&M Expense  
9 per Exhibit G3, Tab 2, Schedule 2, updated for the EB-2011-0210 Board Decision.

10  
11 Union proposes to allocate the balance in the Conservation Demand Management (“CDM”)  
12 Deferral Account (179-123) to rate classes in proportion to the allocation of 2014 DSM costs  
13 in approved rates.

14  
15 There is no balance in the Preparation of Audited Utility Financial Statements Account (179-  
16 129) at December 31, 2014.

17  
18 Union proposes to allocate the balance in the Normalized Average Consumption (“NAC”)  
19 Account (179-133) to General Service rate classes in proportion to the margin variances by  
20 rate class resulting from the difference between the actual NAC and the forecast NAC  
21 included in approved rates by rate class.

1 There is no balance in Tax Variance Deferral Account (179-134) at December 31, 2014.

2

3 There is no balance for disposition in the Unaccounted for Gas Volume Variance Account  
4 (179-135) at December 31, 2014.

5

6 Union proposes to allocate the balance in the Parkway West Project Costs Account (179-136)  
7 to rate classes in proportion to the difference between the actual Project costs and the  
8 forecasted Project costs included in 2014 rates (EB-2013-0365) by rate class. Consistent with  
9 the methodology described in EB-2012-0433 (the Parkway West Leave-to-Construct  
10 application), Union determined the actual Project costs by rate class by updating the 2013  
11 Board-approved cost allocation study to include the actual 2014 Parkway West Project costs.

12

13 Union proposes to allocate the balance in the Parkway Obligation Rate Variance Account  
14 (179-138) to rate classes in accordance with the EB-2013-0365 Settlement Agreement.

15 Consistent with the Settlement Agreement and the Board-approved cost allocation  
16 methodology, the Dawn-Parkway demand costs have been allocated to Union South in-  
17 franchise rate classes in proportion to the 2013 Board-approved Dawn-Parkway design day  
18 demands. The Dawn-Parkway commodity costs have been allocated to Union South in-  
19 franchise rate classes in proportion to 2013 Board-approved delivery volumes for customers  
20 located east of Dawn and to Union North in-franchise rate classes in proportion to Union  
21 North in-franchise winter volumes, excluding T-service and Rate 25 volumes.

1 There is no balance in the Energy East Pipeline Consultation Costs Account (179-139) at  
2 December 31, 2014.

3  
4 **2014 EARNINGS SHARING**

5 Union is proposing to allocate the 2014 earnings sharing of \$7.424 million to all rate classes  
6 based on the allocation of the 2013 Board-approved return on equity. The allocation of 2013  
7 Board-approved return on equity underpins 2014 approved rates. Union's proposal to allocate  
8 2014 earnings sharing based on the allocation of 2013 Board-approved return on equity is  
9 consistent with how Union allocated earnings sharing to rate classes during its previous 2008-  
10 2012 Incentive Regulation period. The allocation of 2014 earnings sharing appears at Exhibit  
11 A, Tab 3, Appendix A, Schedule 1, UPDATED, page 2.

12  
13 **DISPOSITION OF 2014 DEFERRAL ACCOUNT BALANCES AND 2014 EARNINGS SHARING**

14 **AMOUNT**

15 For General Service Rate M1, Rate M2, Rate 01 and Rate 10 customers Union proposes to  
16 dispose of the net 2014 deferral account balances and 2014 earnings sharing amount  
17 prospectively, over the October 1, 2015 to March 31, 2016 time period. The prospective  
18 refund / recovery approach over six months, proposed for Rate M1, Rate M2, Rate 01 and  
19 Rate 10 customers, is consistent with how Union disposed of 2013 deferral account and  
20 earnings sharing balances in EB-2014-0145.



1 For in-franchise contract and ex-franchise rate classes, Union is proposing to dispose of the net  
2 2014 delivery-related deferral account balances and 2014 earnings sharing amount as a one-  
3 time adjustment with October 2015 bills customers receive in November 2015. This approach  
4 is consistent with the methodology used for the disposition of 2013 deferral account balances  
5 in EB-2014-0145.

6  
7 **GENERAL SERVICE BILL IMPACTS**

8 General Service bill impacts are presented at Exhibit A, Tab 3, Appendix A, Schedule 3,  
9 UPDATED. For a Rate M1 sales service residential customer in Union South with annual  
10 consumption of 2,200 m<sup>3</sup>, the charge for the period October 1, 2015 to March 31, 2016 is  
11 \$2.79. This \$2.79 charge consists of a delivery-related charge of \$1.24 (line 13, column (c))  
12 and a commodity-related charge of \$1.55 (line 14, column (c)). For a bundled direct purchase  
13 residential customer the charge is \$1.24.

14  
15 For a Rate 01 sales service residential customer in Union North with annual consumption of  
16 2,200 m<sup>3</sup>, the credit for the period October 1, 2015 to March 31, 2016 is \$3.43. This \$3.43  
17 credit consists of a delivery-related credit of \$3.94 (line 1, column (c)) and a gas  
18 transportation-related charge of \$0.51 (line 3, column (c)). For a bundled direct purchase  
19 residential customer the credit is \$3.43.

UNION GAS LIMITED  
Allocation of 2014 Deferral Account Balances

		Union North					Union South																			
Line No.	Particulars	Acct No.	Rate 01 (\$000's)	Rate 10 (\$000's)	Rate 20 (\$000's)	Rate 100 (\$000's)	Rate 25 (\$000's)	M1 (\$000's)	M2 (\$000's)	M4 (\$000's)	M5A (\$000's)	M7 (\$000's)	M9 (\$000's)	M10 (\$000's)	T1 (\$000's)	T2 (\$000's)	T3 (\$000's)	Bundled DP (\$000's)	M12 (\$000's)	M13 (\$000's)	Excess Utility (\$000's)	C1 (\$000's)	M16 (\$000's)	Total (1) (\$000's)		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)		
<u>Gas Supply Related Deferrals:</u>																										
1	Spot Gas Variance Account	179-107	-	-	-	-	-	(1,305)	(264)	(11)	(3)	(8)	-	(0)	-	-	-	-	-	-	-	-	-	-	(1,591)	
2	Spot Gas Variance Account - Load Balancing for Union South DP	179-107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320	-	-	-	-	-	320		
3	Unabsorbed Demand Cost (UDC) Variance Account	179-108	(3,748)	(1,389)	(493)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(5,629)		
4	Gas Supply Review Consultant Costs	179-128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
5	Upstream Transportation Optimization	179-131	3,972	1,366	473	-	118	3,350	558	25	21	-	-	0	-	-	-	-	-	-	-	-	-	9,883		
6	Total Gas Supply Related Deferrals		225	(23)	(20)	-	118	2,045	294	14	18	(8)	-	(0)	-	-	-	320	-	-	-	-	-	2,983		
<u>Storage Related Deferrals:</u>																										
7	Short-Term Storage and Other Balancing Services	179-70	489	128	34	2	-	1,107	372	120	2	43	14	0	102	753	97		-	-	-	-	-	3,265		
<u>Delivery Related Deferrals:</u>																										
8	Unbundled Services Unauthorized Storage Overrun	179-103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9	Gas Distribution Access Rule (GDAR) Costs	179-112	174	-	-	-	-	576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	750		
10	Carbon Dioxide Offset Credits	179-117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	Average Use Per Customer	179-118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	IFRS Conversion Costs	179-120	49	4	4	3	1	124	12	4	5	1	0	0	3	9	1		23	0	-	0	0	244		
13	Conservation Demand Management	179-123	(30)	(9)	(8)	(14)	-	(83)	(31)	(13)	(21)	(7)	-	-	(14)	(21)	-	-	-	-	-	-	-	(253)		
14	Preparation of Audited Utility Financial Statements	179-129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
15	Normalized Average Consumption (NAC)	179-133	(954)	(776)				1,217	(1,041)										-	-	-	-	-	(1,554)		
16	Tax Variance	179-134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17	Unaccounted for Gas Volume Variance	179-135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
18	Parkway West Project Costs	179-136	(126)	(18)	(14)	(12)	(4)	(291)	(42)	(11)	(11)	(3)	(0)	(0)	(8)	(31)	(3)		104	(0)	(4)	(1)	(0)	(475)		
19	Parkway Obligation Rate Variance	179-138	3	1	0	0	-	1,956	660	199	17	91	34	1	109	672	227		531	-	-	161	3	4,665		
20	Energy East Pipeline Consultation Costs	179-139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
21	Total Delivery-Related Deferrals		(883)	(798)	(18)	(23)	(3)	3,499	(443)	180	(11)	81	33	1	90	629	225	-	659	(0)	(4)	160	3	3,377		
22	Total 2014 Storage and Delivery Disposition (Line 7 + Line 21)		(394)	(670)	16	(21)	(3)	4,606	(71)	300	(9)	125	47	1	192	1,382	322	-	659	(0)	(4)	160	3	6,642		
23	Total 2014 Deferral Account Disposition (Line 6 + Line 22)		(169)	(693)	(4)	(21)	115	6,651	223	314	9	117	47	1	192	1,382	322	320	659	(0)	(4)	160	3	9,625		
24	2014 Earnings Sharing (2)		(1,328)	(205)	(145)	(112)	(40)	(2,900)	(439)	(109)	(93)	(38)	(7)	(0)	(76)	(335)	(44)		(1,541)	(1)	-	(11)	(2)	(7,424)		
25	Grand Total (Line 23 + Line 24)		(1,497)	(897)	(148)	(132)	76	3,751	(216)	205	(83)	78.73	40	1	117	1,047	277	320	(882)	(1)	(4)	149	1	2,201		

Notes:  
(1) EB-2015-0010, Exhibit A, Tab 1, Appendix A, Schedule 1, UPDATED.  
(2) EB-2015-0010, Exhibit A, Tab 2, Appendix B, Schedule 1.

UNION GAS LIMITED  
Allocation of 2014 Earnings Sharing Amounts to Rate Classes

Line No.	Particulars	Rate Class	C2013 Return on Equity Allocation (1) (\$000's) (a)	2014 Earnings Sharing (2) (\$000's) (b)
<u>Union North</u>				
1	Small Volume General Firm Service	01	48,294	(1,328)
2	Large Volume General Firm Service	10	7,443	(205)
3	Medium Volume Firm Service	20	5,272	(145)
4	Large Volume High Load Factor Firm Service	100	4,062	(112)
5	Large Volume Interruptible Service	25	1,443	(40)
6	Total Northern & Eastern Operations Area		<u>66,514</u>	<u>(1,828)</u>
<u>Union South</u>				
7	Small Volume General Service Rate	M1	105,486	(2,900)
8	Large Volume General Service Rate	M2	15,971	(439)
9	Firm Industrial and Commercial Contract Rate	M4	3,973	(109)
10	Interruptible Industrial & Commercial Contract Rate	M5A	3,369	(93)
11	Special Large Volume Industrial & Commercial Contract Rate	M7	1,384	(38)
12	Large Wholesale Service Rate	M9	262	(7)
13	Small Wholesale Service Rate	M10	10	(0)
14	S & T Rates for Contract Carriage Customers	T1	2,755	(76)
15	S & T Rates for Contract Carriage Customers	T2	12,178	(335)
16	S & T Rates for Contract Carriage Customers	T3	1,609	(44)
<u>Storage and Transportation</u>				
17	Cross Franchise Transportation Rates	C1	404	(11)
18	Storage & Transportation Rates	M12	56,060	(1,541)
19	Transportation of Locally Produced Gas	M13	38	(1)
20	Storage & Transportation Services - Transportation Charges	M16	69	(2)
21	Total Southern Operations Area		<u>203,568</u>	<u>(5,596)</u>
22	Total		<u><u>270,082</u></u>	<u><u>(7,424)</u></u>

Notes:

- (1) Allocated costs as per EB-2011-0210, Updated for Board Decision.  
(2) EB-2015-0010, Exhibit A, Tab 2, Appendix B, Schedule 1, line 35, column (d).

UNION GAS LIMITED  
 General Service Unit Rates for Prospective Recovery/(Refund) - Delivery  
2014 Deferral Account Disposition

Line No.	Particulars	Rate Class	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a+b)	Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) (1) (d)	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (e) = (c/d)*100
1	Small Volume General Service	01	(394)	(1,328)	(1,722)	756,529	(0.2276)
2	Large Volume General Service	10	(670)	(205)	(875)	244,726	(0.3574)
3	Small Volume General Service	M1	4,606	(2,900)	1,707	2,308,240	0.0739
4	Large Volume General Service	M2	(71)	(439)	(510)	884,479	(0.0577)

Notes:

(1) Forecast volume for the period October 1, 2015 to March 31, 2016.

UNION GAS LIMITED  
 General Service Unit Rates for Prospective Recovery/(Refund) - Gas Supply Transportation  
2014 Deferral Account Disposition

Line No.	Particulars	Rate Class	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a+b)	Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) (1) (d)	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (e) = (c/d)*100
1	Small Volume General Service	01	225	-	225	756,529	0.0297
2	Large Volume General Service	10	(23)	-	(23)	243,229	(0.0093)

Notes:

(1) Forecast volume for the period October 1, 2015 to March 31, 2016.

UNION GAS LIMITED  
Unit Rates for Prospective Recovery/(Refund) - Gas Supply Commodity  
2014 Deferral Account Disposition

Line No.	Particulars	Rate Class	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a+b)	Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) (1) (d)	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (e) = (c/d)*100
1	Small Volume General Service	M1	2,045	-	2,045	2,030,085	0.0925
2	Large Volume General Service	M2	294	-	294	495,823	0.0925
3	Firm Com/Ind Contract	M4	14	-	14	19,586	0.0925
4	Interruptible Com/Ind Contract	M5	18	-	18	7,869	0.0925
5	Special Large Volume Contract	M7	(8)	-	(8)	-	0.0925
6	Small Wholesale	M10	(0)	-	(0)	232	0.0925

Notes:

(1) Forecast sales service volumes for the period October 1, 2015 to March 31, 2016.

UNION GAS LIMITED  
Contract Unit Rates for One-Time Adjustment - Delivery  
2014 Deferral Account Disposition

Line No.	Particulars	Rate Class	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a+b)	2014 Actual Volume (10 <sup>3</sup> m <sup>3</sup> ) (d)	Unit Rate (cents/m <sup>3</sup> ) (e) = (c/d)*100
	<u>Union North</u>						
1	Medium Volume Firm Service (1)	20	(3)	(28)	(31)	102,812	(0.0304)
2	Medium Volume Firm Service (2)	20T	(15)	(117)	(132)	433,295	(0.0304)
3	Large Volume High Load Factor (2)	100T	(23)	(112)	(135)	1,711,253	(0.0079)
4	Large Volume Interruptible	25	(3)	(40)	(42)	184,868	(0.0230)
	<u>Union South</u>						
5	Firm Com/Ind Contract	M4	300	(109)	191	484,166	0.0394
6	Interruptible Com/Ind Contract	M5	(9)	(93)	(101)	258,788	(0.0391)
7	Special Large Volume Contract	M7	125	(38)	87	392,825	0.0221
8	Large Wholesale	M9	47	(7)	40	67,404	0.0597
9	Small Wholesale	M10	1	(0)	1	312	0.3484
10	Contract Carriage Service	T1	192	(76)	117	469,906	0.0248
11	Contract Carriage Service	T2	1,382	(335)	1,047	4,303,222	0.0243
12	Contract Carriage- Wholesale	T3	322	(44)	277	288,979	0.0960

Notes:

- (1) Sales and Bundled-T customers only.  
(2) T-service customers only.

UNION GAS LIMITED  
 Contract Unit Rates for One-Time Adjustment - Gas Supply Transportation and Bundled Storage  
2014 Deferral Account Disposition

Line No.	Particulars	Rate Class	Billing Units	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a+b)	2014 Actual Volume/Demand (d)	Unit Volumetric/Demand Rate (e) = (c/d)*100
	<u>Gas Supply Transportation (cents/m<sup>3</sup>)</u>							
1	Medium Volume Firm Service	20	10 <sup>3</sup> m <sup>3</sup> /d	(20)	-	(20)	5,552	(0.3536)
2	Large Volume Interruptible	25	10 <sup>3</sup> m <sup>3</sup>	118	-	118	95,625	0.1234
	<u>Storage (\$/GJ)</u>							
3	Bundled-T Storage Service	20T/100T	GJ/d	37	-	37	156,814	0.2336



UNION GAS LIMITED  
 Storage and Transportation Service Amounts for Disposition  
2014 Deferral Account Disposition

Line No.	Particulars (\$000's) (1)	Rate Class	2014 Deferral Balances (\$000's) (a)	2014 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (c)
1	Storage and Transportation	M12	659	(1,541)	(882)
2	Local Production	M13	(0)	(1)	(1)
3	Short-Term Cross Franchise	C1	160	(11)	149
4	Storage Transportation Service	M16	3	(2)	1

Notes:

- (1) Exfranchise M12, M13, M16 and C1 customer specific amounts determined using approved deferral account allocation methodologies.

**UNION GAS LIMITED**  
General Service Bill Impacts

Line No.	Particulars	Rate Component	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (1) (a)	Volume (m <sup>3</sup> ) (2) (b)	Bill Impact (\$) (c) = (a x b) / 100
1	<u>Rate 01</u>	Delivery	(0.2276)	1,733	(3.94)
2		Commodity	-	1,733	-
3		Transportation	0.0297	1,733	0.51
4			(0.1979)		(3.43)
5	Sales Service				(3.43)
6	Direct Purchase Bundled T				(3.43)
7	<u>Rate 10</u>	Delivery	(0.3574)	66,961	(239.32)
8		Commodity	-	66,961	-
9		Transportation	(0.0093)	66,961	(6.23)
10			(0.3667)		(245.54)
11	Sales Service				(245.54)
12	Direct Purchase Bundled T				(245.54)
13	<u>Rate M1</u>	Delivery	0.0739	1,679	1.24
14		Commodity	0.0925	1,679	1.55
15			0.1664		2.79
16	Sales Service				2.79
17	Direct Purchase				1.24
18	<u>Rate M2</u>	Delivery	(0.0577)	55,772	(32.18)
19		Commodity	0.0925	55,772	51.59
20			0.0348		19.41
21	Sales Service				19.41
22	Direct Purchase				(32.18)

Notes:

(1) EB-2015-0010, Exhibit A, Tab 3, Schedule 2, UPDATED, pages 1-3, column (e).

(2) Average consumption, per customer, for the period October 1, 2015 to March 31, 2016.

**INCREMENTAL TRANSPORTATION CONTRACTING ANALYSIS AND**  
**ANNUAL STAKEHOLDER MEETING**

The evidence in this tab is organized as follows:

- a) Incremental Transportation Contracting Analysis
- b) Annual Stakeholder Meeting

**INCREMENTAL TRANSPORTATION CONTRACTING ANALYSIS**

**Introduction**

Pursuant to Union's EB-2005-0520 Settlement Agreement,<sup>1</sup> the purpose of this evidence is to provide the analysis used by Union to support its decision to enter into firm transportation capacity on the following contracts:

- 1. Vector Pipeline (1 year extension)
- 2. Vector Pipeline (3 years)
- 3. Panhandle Eastern Pipeline (1 year)
- 4. DTE Energy (1 year)
- 5. TransCanada Empress to Union SSMDA (3 years)
- 6. TransCanada Empress to Union NDA (3 years)
- 7. TransCanada Dawn to Union CDA (3 years)

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<sup>1</sup> EB-2005-0520 Settlement Agreement - page 13, subsection 3.1, paragraph 2; and Appendix B – Incremental Transportation Contracting Analysis.

1        **1. VECTOR PIPELINE (1 YEAR EXTENSION) TRANSPORTATION CONTRACT**

2        Capacity History

3        As stated in EB-2011-0210, Union holds 80,000 Dth/day (84,405 GJ/day) of capacity on  
4        Vector Pipeline LP and Vector Pipeline Limited Partnership (Vector), originally as part of  
5        the Alliance/Vector transportation path to transport gas from the Western Canadian  
6        Sedimentary Basin (“WCSB”) to Union’s system at Dawn. This contract on Vector  
7        includes extension rights that could be exercised before November 30, 2014 for capacity  
8        due to terminate on December 1, 2017.

9  
10       Renewed Capacity

11       Union has exercised its right to extend the contract for a one-year period ending  
12       November 30, 2018 at the existing \$0.2518 US/Dth 100% load factor rate. This capacity  
13       will continue to serve sales service customers in Union South. Union will have its next  
14       opportunity to extend the Vector contract or terminate it on or before November 30, 2015.

15  
16       Rationale for Transportation Capacity

17       Union’s 2015 - 2019 Gas Supply Plan supports the extension of Vector capacity in order  
18       for Union to meet forecasted demand within the Union South sales service customer base.  
19       The landed cost of this gas arriving at Dawn is forecast to be competitive with supply  
20       flowing on alternative upstream pipelines.

1 The benefits of this capacity are:

- 2 1. The landed cost of gas flowing to Union along this route is competitively priced;
- 3 2. The extended term supports Union's objective of structuring a portfolio with a
- 4 diversity of contract terms and supply basins;
- 5 3. Access to the Chicago market hub that receives competing gas supplies from the
- 6 WCSB, the U.S. Midwest, Marcellus/Utica, Gulf and the expanding Rockies basin
- 7 which supports Union's objective of diversity of supply basins;
- 8 4. Maintains and supports the acquisition of secure supply from a liquid market hub
- 9 with many gas suppliers accessing multiple gas supply basins;
- 10 5. Low unabsorbed demand charge ("UDC") exposure relative to alternative
- 11 upstream pipeline routes due to the low demand charge on this route;
- 12 6. Provides a fixed-rate toll which provides toll certainty on a portion of Union's
- 13 upstream transportation;
- 14 7. Provides Union with both receipt and delivery flexibility within the path;
- 15 8. Lands gas at Dawn to support diversity of deliveries and system integrity; and,
- 16 9. The right to renew this capacity is a component of the agreement which ensures
- 17 secure access to this transportation.

18  
19 Contract Parameters

- 20 • Transportation provider: Vector
- 21 • Service: FT-1 (Firm Transportation)
- 22 • Term: December 1, 2000 through November 30, 2018

- Volume: 80,000 Dth/day (84,405 GJ/day)
- Rate: \$0.2518 US/ Dth at 100% Load Factor (includes abandonment surcharges, exclusive of fuel)
- Receipt Point: Alliance Pipelines L.P. Interconnect (Joliet)
- Delivery Point: Union (Dawn)
- Renewal rights: Union has the right to extend the contract for periods of 1 year or more with a minimum 3 years of notice

#### Incremental Contracting Analysis Form

Exhibit A, Tab 4, Appendix A, Schedule 1 shows a comparison of landed costs for the Vector contract relative to the alternatives reviewed by Union at the time the decision was made to acquire the capacity. Schedule 1 is in the format agreed upon in the EB-2005-0520 Settlement Agreement.

## **2. VECTOR PIPELINE (3 YEARS) TRANSPORTATION CONTRACT**

### New Capacity

On August 11, 2014, Union entered into a new contract with Vector for 25,000 Dth/d (26,376 GJ/d) at a 100% load factor rate of \$0.1918 US/Dth, with a three-year term commencing November 1, 2014 and expiring October 31, 2017.

1 Rationale for Transportation Capacity

2 Union's 2015-2019 Gas Supply Plan supports the Vector capacity in order for Union to  
3 meet forecasted demand within the Union South sales service customer base. The landed  
4 cost of this gas arriving at Dawn is forecast to be competitive with supply flowing on  
5 alternative upstream pipelines.

6  
7 The benefits of this capacity are:

- 8 1. The landed cost of gas flowing to Union along this route is competitively priced;
- 9 2. The three-year term supports Union's objective of structuring a portfolio with a  
10 diversity of contract terms and supply basins;
- 11 3. Access to the Chicago market hub that receives competing gas supplies from the  
12 WCSB, the U.S. Midwest, Marcellus/Utica, Gulf and the expanding Rockies basin  
13 which supports Union's objective of diversity of supply basins;
- 14 4. Maintains and supports the acquisition of secure supply from a liquid market hub  
15 with many gas suppliers accessing multiple gas supply basins;
- 16 5. Low unabsorbed demand charge ("UDC") exposure relative to alternative  
17 upstream pipeline routes due to the low demand charge on this route;
- 18 6. Provides a fixed-rate toll which provides toll certainty on a portion of Union's  
19 upstream transportation;
- 20 7. Provides Union with both receipt and delivery flexibility within the path; and,
- 21 8. Lands gas at Dawn to support diversity of deliveries and system integrity.

22

1 Contract Parameters

- 2 • Transportation provider: Vector
- 3 • Service: FT-1 (Firm Transportation )
- 4 • Term: November 1, 2014 through October 31, 2017
- 5 • Volume: 25,000 Dth/day (26,376 GJ/day)
- 6 • Rate: \$0.1918 US/ Dth at 100% Load Factor (includes abandonment
- 7 surcharges, exclusive of fuel)
- 8 • Receipt Point: Alliance Pipelines L.P. Interconnect (Joliet)
- 9 • Delivery Point: Union (Dawn)
- 10 • Renewal rights: Not included

11  
12 Incremental Contracting Analysis Form

13 Exhibit A, Tab 4, Appendix A, Schedule 2 shows a comparison of landed costs for the  
14 Vector contract relative to the alternatives reviewed by Union at the time the decision was  
15 made to acquire the capacity. Schedule 2 is in the format agreed upon in the EB-2005-  
16 0520 Settlement Agreement.

17  
18 **3. PANHANDLE EASTERN PIPELINE (1 YEAR) TRANSPORTATION CONTRACT**

19 Capacity History

20 Union holds 27,000 Dth/day (28,487 GJ/d) of firm transportation on Panhandle Eastern  
21 Pipeline Company, LP (Panhandle) from the Panhandle Field Zone to Union's pipeline  
22 system at Ojibway through to October 31, 2017. These volumes are then delivered to



1 Parkway by a firm Ojibway-to-Parkway service. There were no changes to these  
2 contracts.

3  
4 In addition to the 27,000 DTh/day (28,487 GJ/d), Union held a contract for 10,000  
5 Dth/day (10,551 GJ/d) of incremental firm transportation on Panhandle (Panhandle Field  
6 Zone to Ojibway) beginning November 1, 2013, with a one-year term that expired on  
7 October 31, 2014. This contract was included in the 2013 Disposition of Deferral Account  
8 Balances<sup>2</sup>.

9  
10 New Capacity

11 Union has acquired a new contract for 10,000 Dth/d (10,551 GJ/d) at a 100% load factor  
12 rate of \$0.4265 US/Dth, with a one-year term commencing November 1, 2014 and  
13 expiring October 31, 2015. This contract replaced the existing contract for 10,000  
14 Dth/day which expired on October 31, 2014 as noted above.

15  
16 Rationale for Transportation Capacity

17 Union's 2015-2019 Gas Supply Plan supports the Panhandle capacity in order for Union  
18 to meet forecasted demand within the Union South sales service customer base. The  
19 landed cost of this gas arriving at Dawn is forecast to be competitive with supply flowing  
20 on alternative upstream pipelines.

21  

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<sup>2</sup> EB-2014-0145, Exhibit A, Tab 4, Page 4.

The benefits of this capacity are:

1. The landed cost of gas flowing to Union along this route is competitively priced;
2. The one year term supports Union's objective of structuring a portfolio with a diversity of contract terms and supply basins;
3. Maintains and supports the acquisition of secure supply from the Panhandle Field Zone gas supply basin, maintaining Union's supply diversity;
4. Fixed-rate toll which provides toll certainty on a portion of Union's supply;
5. Lands gas at Ojibway to support diversity of deliveries and support system integrity; and,
6. Provides Union with both receipt and delivery flexibility within the path.

Contract Parameters

- Transportation provider: Panhandle
- Service: Firm Transportation
- Term: November 1, 2014 through October 31, 2015
- Volume: 10,000 Dth/day (10,551 GJ/d)
- Rate: \$0.4265 US/Dth at 100% Load Factor (exclusive of fuel)
- Receipt Point: Panhandle Field Zone (Cheyenne Plains)
- Delivery Point: Union (Ojibway)
- Renewal rights: Right of first refusal (ROFR)

1 Incremental Contracting Analysis Form

2 Exhibit A, Tab 4, Appendix A, Schedule 3 shows a comparison of landed costs for the  
3 Panhandle contract relative to the alternatives reviewed by Union at the time the decision  
4 to acquire the capacity was made. Schedule 3 is in the format agreed upon in the EB-  
5 2005-0520 Settlement Agreement.

6  
7 **4. DTE ENERGY (1 YEAR) TRANSPORTATION CONTRACT**

8 New Capacity

9 Union entered into a firm transportation contract with DTE Energy for incremental  
10 capacity of 10,000 Dth/d (10,551 GJ/d) at a 100% load factor rate of \$0.035 US/Dth, with  
11 a one-year term commencing November 1, 2014 and expiring October 31, 2015. This  
12 capacity is used to meet the gas supply requirements of Union South customers.

13  
14 Rationale for Transportation Capacity

15 Union's 2015 - 2019 Gas Supply Plan supports the DTE Energy capacity in order for  
16 Union to meet forecasted demand within the Union South sales service customer base.  
17 The landed cost of this gas is forecast to be competitive with supply flowing on  
18 alternative upstream pipelines.

19  
20 The benefits of this capacity are:

- 21 1. The landed cost of gas flowing to Union along this route is competitively priced;

2. The contract supports Union's objective of structuring a portfolio with a diversity of contract terms and supply basins;
3. Low unabsorbed demand charge ("UDC") exposure relative to alternative upstream pipeline routes due to the low demand charge on this route;
4. Provides a fixed-rate toll which provides toll certainty on a portion of Union's upstream transportation;
5. Provides Union receipt point flexibility;
6. Lands gas at St. Clair to support diversity of deliveries and system integrity; and,
7. The right to renew this capacity is a component of the agreement which ensures secure access to this transportation.

#### Contract Parameters

- Transportation provider: DTE Energy
- Service: Firm Transportation
- Term: November 1, 2014 through October 31, 2015
- Volume: 10,000 Dth/day (10,551 GJ/day)
- Rate: \$0.035 US/ Dth at 100% Load Factor (exclusive of fuel)
- Receipt Point: Michcon Generic
- Delivery Point: Union (St. Clair)
- Renewal rights: Union has the right to extend the contract for 1 additional year with a minimum 3 months of notice

1 Incremental Contracting Analysis Form

2 Exhibit A, Tab 4, Appendix A, Schedule 3 shows a comparison of landed costs for the  
3 DTE Energy contract relative to the alternatives reviewed by Union at the time the  
4 decision was made to acquire the capacity. Schedule 3 is in the format agreed upon in the  
5 EB-2005-0520 Settlement Agreement.

6

7 **5. TRANSCANADA EMPRESS TO UNION SSMDA (3 YEARS) TRANSPORTATION**

8 **CONTRACT**

9 Capacity History

10 In November 2011, Union contracted for 6,143 GJ/d of capacity on Great Lakes Gas  
11 Transmission (“GLGT”), DTE/MichCon, and TransCanada to provide supply from  
12 Michigan to the Union SSMDA. This provided an economic alternative and introduced  
13 some diversity into the Union North portfolio. The economics were based on a discounted  
14 transportation rate that was briefly offered by GLGT. In 2014, Union was informed that  
15 this discounted capacity would no longer be available upon the expiration of the current  
16 arrangement (November 1, 2014). As well, GLGT was in the process of gaining  
17 regulatory approval for a substantial increase in their transportation rates. As a result of  
18 these factors, Union elected not to renew the GLGT/MichCon contracts, and instead  
19 worked with TransCanada to amend the TransCanada portion of the path to serve the  
20 Union SSMDA using long-haul transportation from Empress.

21

22

1 New Capacity

2 Effective November 1, 2014, Union amended the existing TransCanada contract for  
3 6,143GJ/d to change the receipt point from Sault St. Marie to Empress, and maintain the  
4 delivery point of the Union SSMDA. This capacity is used to meet the gas supply  
5 requirements of Union North customers.

6  
7 Rationale for Transportation Capacity

8 Union's 2015 - 2019 Gas Supply Plan supports the TransCanada capacity in order for  
9 Union to meet the gas supply requirements of Union North customers.

10  
11 The benefits of this capacity are:

- 12 1. Provides firm transportation capacity to meet the firm design day loads within the  
13 Union SSMDA;  
14 2. Contract is renewable and has an end date that aligns with the gas year;  
15 3. The landed cost of gas flowing to Union along this route is competitively priced  
16 compared to the limited alternatives; and,  
17 4. The firm transport purchase is consistent with the gas supply principal of ensuring  
18 secure and reliable gas supply to Union's service territory at a reasonable cost.

19  
20 Amended Contract Parameters

- 21 • Transportation provider: TransCanada

- 1 • Service: FT (Firm Transportation)
- 2 • Term: November 1, 2014 through October 31, 2017
- 3 • Volume: 6,143 GJ/day
- 4 • Current Rate: \$1.4464 Cdn/GJ at 100% load factor (includes abandonment
- 5 surcharge, exclusive of fuel)
- 6 • Primary Receipt Point: Empress
- 7 • Delivery Point: Union SSMDA
- 8 • Renewal rights: Included

9

10 Incremental Contracting Analysis Form

11 Exhibit A, Tab 4, Appendix A, Schedule 4 shows a comparison of landed costs for the  
12 TransCanada contract relative to the alternatives reviewed by Union at the time the  
13 decision was made to acquire the capacity. Schedule 4 is in the format agreed upon in the  
14 EB-2005-0520 Settlement Agreement.

15

16 **6. TRANSCANADA EMPRESS TO UNION NDA (3 YEARS) TRANSPORTATION**

17 **CONTRACT**

18 New Capacity

19 Effective November 1, 2014, Union entered into a firm long-haul transportation contract  
20 with TransCanada Pipelines Limited (“TransCanada”) for incremental capacity of 4,800  
21 GJ/d from Empress to Union NDA. This capacity is used to meet the gas supply  
22 requirements of Union North customers.

1 Rationale for Transportation Capacity

2 Union's 2015 - 2019 Gas Supply Plan supports the TransCanada capacity in order for  
3 Union to meet forecasted design day demand within Union North.

4  
5 Union acquired this capacity through participating in a TransCanada existing capacity open  
6 season on July 22, 2014. Union bid for 4,800 GJ/day of capacity to start November 1, 2014,  
7 and was awarded the capacity.

8  
9 The benefits of this capacity are:

- 10 1. Provides firm transportation capacity to meet the firm design day loads within the  
11 Union NDA;  
12 2. Contract is renewable and has an end date that aligns with the gas year; and,  
13 3. The firm transport purchase is consistent with the gas supply principal of ensuring  
14 secure and reliable gas supply to Union's service territory at a reasonable cost.

15  
16 Contract Parameters

- 17 • Transportation provider: TransCanada  
18 • Service: FT (Firm Transportation)  
19 • Term: November 1, 2014 through October 31, 2017  
20 • Volume: 4,800 GJ/day



- Current Rate: \$1.5954 Cdn/GJ at 100% load factor (includes abandonment surcharge, exclusive of fuel)
- Primary Receipt Point: Empress
- Delivery Point: Union NDA
- Renewal rights: Included

#### Incremental Contracting Analysis Form

At the time, the only firm transportation capacity available to the Union NDA was TransCanada Empress to Union NDA. Thus, a landed cost comparison is not applicable and has not been included.

### **7. TRANSCANADA DAWN TO UNION CDA (3 YEARS) TRANSPORTATION CONTRACT**

#### Capacity History

As discussed in EB-2014-0182<sup>3</sup>, TransCanada had not historically required that Union contract for volumes transported from Parkway to the Union CDA. Prior to the start of winter 2011/2012, TransCanada informed Union that it would need to contract for these volumes going forward.

Since 2011, Union has continued to contract for capacity to the Union CDA in order to comply with TransCanada's requirements. In 2011, TransCanada only offered a portion of the capacity required as renewable firm transportation ("FT") and all remaining

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<sup>3</sup> EB-2014-0182, Exhibit A, Tab 5, Page 3.

1 capacity offered was non-renewable (FT-NR). The capacity requirements for each  
2 subsequent year have been determined by the annual Gas Supply Plan, and Union has  
3 purchased transportation capacity from the secondary market as TransCanada has not  
4 offered additional firm short-haul transportation to the Union CDA. There are a limited  
5 number of parties who hold capacity to the Union CDA, so the contract terms have varied  
6 over time depending on what is offered by secondary market participants. Due to the  
7 limited capacity into the Union CDA and the requirement for Union to serve markets in  
8 the Burlington/Oakville area, Union has submitted an application to build facilities to  
9 eliminate this requirement as for November 1, 2016.<sup>4</sup>

#### 11 New Capacity

12 Effective September 11, 2014, Union took permanent assignment of 8,000 GJ/d of  
13 TransCanada firm short-haul transportation capacity from Dawn to the Union CDA in  
14 order to meet the requirements in the Gas Supply Plan. This permanent assignment was  
15 acquired in the secondary market through direct negotiations with the only two parties  
16 with access to TransCanada capacity into the Union CDA

#### 18 Rationale for Transportation Capacity

19 Union's 2015 - 2019 Gas Supply Plan supports the TransCanada capacity in order for  
20 Union to meet forecasted demand within the Union South sales service customer base.

21  

---

<sup>4</sup> EB-2014-0182 Burlington Oakville Project.

1 The benefits of this capacity are:

- 2 1. Provides firm transportation capacity to meet the design day loads within the
- 3 Burlington Oakville System<sup>5</sup>;
- 4 2. Contract is renewable and has an end date that aligns with the gas year; and,
- 5 3. The firm transport purchase is consistent with the gas supply principal of ensuring
- 6 secure and reliable gas supply to Union's service territory at a reasonable cost.

7

8 Contract Parameters

- 9 • Transportation provider: TransCanada
- 10 • Service: FT (Firm Transportation)
- 11 • Term: November 1, 2014 through October 31, 2017
- 12 • Volume: 8,000 GJ/day
- 13 • Current Rate: \$ 0.5294 Cdn/GJ at 100% load factor (market-based rate, includes
- 14 abandonment surcharge, exclusive of fuel)
- 15 • Primary Receipt Point: Dawn
- 16 • Delivery Point: Union CDA
- 17 • Renewal rights: Included

18

19

20

21

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<sup>5</sup> EB-2014-0182, Exhibit A, Tab 5, page 7.

1 Incremental Contracting Analysis Form

2 The only firm short-haul transportation path available to the Union CDA is on the  
3 TransCanada Mainline system. Thus, a landed cost comparison is not applicable and has  
4 not been included.

5  
6 ANNUAL STAKEHOLDER MEETING

7 In Union's 2014-2018 IRM (EB-2013-0202) Settlement Agreement, parties agreed that  
8 Union will hold an annual, funded stakeholder meeting. At the stakeholder meeting Union  
9 will review previous year's financial results and other key operating parameters, present  
10 and explain market conditions and expected changes/trends, present and review the Gas  
11 Supply Plan for the coming year, present new capital projects that meet the capital pass-  
12 through criteria and present results of any customer surveys undertaken during the year.  
13 Union held the second annual stakeholder meeting on April 8, 2015. The gas supply  
14 memorandum can be found at Exhibit A, Tab 5. The slides from annual stakeholder  
15 meeting can be found at Exhibit A, Tab 6.

UNION GAS LIMITED  
2014-2018 Transportation Contracting Analysis

	<u>Route</u>	<u>Point of Supply</u>	<u>Basis Differential</u> \$US/mmBtu	<u>Supply Cost</u> \$US/mmBtu	<u>Unitized</u> <u>Demand Charge</u> \$US/mmBtu	<u>Commodity</u> <u>Charge</u> \$US/mmBtu	<u>Fuel Charge</u> \$US/mmBtu	<u>100% LF</u> <u>Transportation</u> <u>Inclusive of Fuel</u> \$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)	<b>Trunkline/Panhandle</b>	Trunkline Field Zone 1A	-0.058	5.1922	0.1925	0.0275	0.1939	0.4139	\$5.61	<b>\$5.81</b>	Ojibway
*	<b>Vector (2008-2018)</b>	Chicago	0.183	5.4330	0.2500	0.0018	0.0603	0.3121	\$5.75	<b>\$5.95</b>	Dawn
(2)	<b>TCPL Niagara</b>	Niagara	0.364	5.6142	0.1375	0.0000	0.0101	0.1476	\$5.76	<b>\$5.97</b>	Kirkwall
(2)	<b>PEPL (2012-2017)</b>	Panhandle Field Zone	-0.165	5.0856	0.3200	0.0441	0.3184	0.6825	\$5.77	<b>\$5.98</b>	Ojibway
(1)	<b>Dawn</b>	Dawn	0.599	5.8498	0.0000	0.0000	0.0000	0.0000	\$5.85	<b>\$6.06</b>	Dawn
(2)	<b>Panhandle Longhaul (2010-2017)</b>	Panhandle Field Zone	-0.165	5.0856	0.4251	0.0441	0.3184	0.7876	\$5.87	<b>\$6.08</b>	Ojibway
(2)	<b>Alliance/Vector (2000-2015)</b>	CREC	-0.768	4.4828	1.7023	-0.4048	0.2560	1.5534	\$6.04	<b>\$6.25</b>	Dawn
(1)	<b>TCPL SWDA</b>	Empress	-0.647	4.6038	1.3707	0.0000	0.1823	1.5530	\$6.16	<b>\$6.38</b>	Dawn
(2)	<b>TCPL CDA</b>	Empress	-0.647	4.6038	1.4870	0.0000	0.1676	1.6546	\$6.26	<b>\$6.48</b>	Union CDA

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

Assumptions used in Developing Transportation Contracting Analysis:

	<u>Annual Gas Supply &amp; Fuel Ratio</u> <u>Forecasts</u>	<u>Point of Supply</u> <u>Col (B) above</u>	<u>Dec 2014 - Nov</u> <u>2015</u>	<u>Dec 2015 - Nov</u> <u>2016</u>	<u>Dec 2016 - Nov</u> <u>2017</u>	<u>Dec 2017 - Nov</u> <u>2018</u>	<u>Average</u> <u>Annual Gas</u> <u>Supply Cost</u> \$US/mmBtu <u>Col (D) above</u>	<u>Fuel Ratio</u> <u>Forecasts</u> <u>Col (G) above</u>
	<b>Henry Hub (NYMEX)</b>	Henry Hub	\$4.37	\$4.84	\$5.95	\$5.84	\$5.25	
	<b>Trunkline/Panhandle</b>	Trunkline Field Zone 1A	\$4.33	\$4.79	\$5.89	\$5.76	\$5.19	3.73%
	<b>Vector (2008-2018)</b>	Chicago	\$4.60	\$5.07	\$6.11	\$5.96	\$5.43	1.11%
	<b>TCPL Niagara</b>	Niagara	\$4.68	\$5.14	\$6.28	\$6.36	\$5.61	0.18%
	<b>PEPL (2012-2017)</b>	Panhandle Field Zone	\$4.25	\$4.71	\$5.76	\$5.62	\$5.09	6.26%
	<b>Dawn</b>	Dawn	\$5.08	\$5.52	\$6.47	\$6.33	\$5.85	0.00%
	<b>Panhandle Longhaul (2010-2017)</b>	Panhandle Field Zone	\$4.25	\$4.71	\$5.76	\$5.62	\$5.09	6.26%
	<b>Alliance/Vector (2000-2015)</b>	CREC	\$3.76	\$4.14	\$5.07	\$4.97	\$4.48	5.71%
	<b>TCPL SWDA</b>	Empress	\$3.87	\$4.26	\$5.19	\$5.09	\$4.60	3.96%
	<b>TCPL CDA</b>	Empress	\$3.87	\$4.26	\$5.19	\$5.09	\$4.60	3.64%

Sources for Assumptions:

Gas Supply Prices (Col D): ICF Q3 2014 Base Case

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 = \$1.093 CDN From Bank of Canada Closing Rate Sept 2, 2014

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

Union's Analysis Completed: Sep-14

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

UNION GAS LIMITED  
 2014-2017 Transportation Contracting Analysis

	Route	Point of Supply	Basis Differential \$US/mmBtu	Supply Cost \$US/mmBtu	Unitized Demand Charge \$US/mmBtu	Commodity Charge \$US/mmBtu	Fuel Charge \$US/mmBtu	100% LF Transportation Inclusive of Fuel \$US/mmBtu	Landed Cost \$US/mmBtu	Landed Cost \$Cdn/G	Point of Delivery
	(A)	(B)	( C )	(D) = Nymex + C	(E)	(F)	(G)	(I) = E + F + G	(J) = D + I	(K)	(L)
(2)	Trunkline/Panhandle	Trunkline Field Zone 1A	-0.044	4.1007	0.1923	0.0275	0.1566	0.3763	\$4.48	\$4.53	Ojibway
(2)	TCPL Niagara	Niagara	0.199	4.3439	0.1409	0.0000	0.0070	0.1479	\$4.49	\$4.54	Kirkwall
(2)	PEPL (2012-2017)	Panhandle Field Zone	-0.108	4.0372	0.3200	0.0441	0.1946	0.5587	\$4.60	\$4.65	Ojibway
*	Vector (2014 - 2017)	Chicago	0.232	4.3772	0.1900	0.0018	0.0420	0.2338	\$4.61	\$4.66	Dawn
	ANR-Michcon-Union (Fayetteville)	Fayetteville	-0.037	4.1082	0.3579	0.0161	0.1659	0.5399	\$4.65	\$4.70	St. Clair
(2)	Vector (2008-2016)	Chicago	0.232	4.3772	0.2500	0.0018	0.0420	0.2938	\$4.67	\$4.72	Dawn
	PEPL - (Mkt Quote)	Panhandle Field Zone	-0.108	4.0372	0.4200	0.0441	0.1946	0.6587	\$4.70	\$4.75	Ojibway
(2)	Panhandle Longhaul (2010-2017)	Panhandle Field Zone	-0.108	4.0372	0.4251	0.0441	0.1946	0.6638	\$4.70	\$4.75	Ojibway
	Michcon to St. Clair	SE Michigan	0.460	4.6051	0.0320	0.0000	0.0751	0.1071	\$4.71	\$4.76	St. Clair
	ANR-Michcon-Union (Gulf)	ANR South East	0.030	4.1745	0.3579	0.0161	0.1686	0.5425	\$4.72	\$4.77	St. Clair
	ANR-GLGT-TCPL	Fayetteville	-0.037	4.1082	0.5498	0.0216	0.1232	0.6946	\$4.80	\$4.86	Dawn
	Dawn	Dawn	0.667	4.8123	0.0000	0.0000	0.0000	0.0000	\$4.81	\$4.87	Dawn
	GLGT to TCPL	Northern Michigan	0.459	4.6035	0.2851	0.0074	0.0292	0.3217	\$4.93	\$4.98	Dawn
(2)	Alliance/Vector (2000-2015)	CREC	-0.629	3.5157	1.7201	-0.4098	0.1952	1.5055	\$5.02	\$5.08	Dawn
(1)	TCPL SWDA	Empress	-0.514	3.6304	1.4045	0.0000	0.1180	1.5225	\$5.15	\$5.21	Dawn
(2)	TCPL CDA	Empress	-0.514	3.6304	1.5237	0.0000	0.1269	1.6506	\$5.28	\$5.34	Union CDA

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

Assumptions used in Developing Transportation Contracting Analysis:

	Annual Gas Supply & Fuel Ratio Forecasts	Point of Supply Col (B) above	Nov 2014 - Oct 2015	Nov 2015 - Oct 2016	Nov 2016 - Oct 2017	Average Annual Gas Supply Cost \$US/mmBtu Col (D) above	Fuel Ratio Forecasts Col (G) above
	Henry Hub (NYMEX)	Henry Hub	\$3.94	\$3.94	\$4.55	\$4.14	
	Trunkline/Panhandle	Trunkline Field Zone 1A	\$3.90	\$3.90	\$4.50	\$4.10	3.82%
	TCPL Niagara	Niagara	\$4.13	\$3.98	\$4.92	\$4.34	0.16%
	PEPL (2012-2017)	Panhandle Field Zone	\$3.87	\$3.83	\$4.41	\$4.04	4.82%
	Vector (2014 - 2017)	Chicago	\$4.29	\$4.14	\$4.70	\$4.38	0.96%
	ANR-Michcon-Union (Fayetteville)	Fayetteville	\$3.93	\$3.90	\$4.50	\$4.11	4.04%
	Vector (2008-2016)	Chicago	\$4.29	\$4.14	\$4.70	\$4.38	0.96%
	PEPL - (Mkt Quote)	Panhandle Field Zone	\$3.87	\$3.83	\$4.41	\$4.04	4.82%
	Panhandle Longhaul (2010-2017)	Panhandle Field Zone	\$3.87	\$3.83	\$4.41	\$4.04	4.82%
	Michcon to St. Clair	SE Michigan	\$4.57	\$4.43	\$4.81	\$4.61	1.63%
	ANR-Michcon-Union (Gulf)	ANR South East	\$3.98	\$3.97	\$4.57	\$4.17	4.04%
	ANR-GLGT-TCPL	Fayetteville	\$3.93	\$3.90	\$4.50	\$4.11	3.00%
	Dawn	Dawn	\$4.78	\$4.68	\$4.98	\$4.81	0.00%
	GLGT to TCPL	Northern Michigan	\$4.57	\$4.43	\$4.81	\$4.60	0.64%
	Alliance/Vector (2000-2015)	CREC	\$3.45	\$3.35	\$3.74	\$3.52	5.55%
	TCPL SWDA	Empress	\$3.57	\$3.46	\$3.86	\$3.63	3.25%
	TCPL CDA	Empress	\$3.57	\$3.46	\$3.86	\$3.63	3.50%

Sources for Assumptions:

Gas Supply Prices (Col D): ICF Q3 2014 Base Case  
 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 = \$1.067 CDN From Bank of Canada Closing Rate July 2, 2014  
 Energy Conversions (Col K) 1 dth = 1 mmBtu = 1.055056  
 Union's Analysis Completed: July 2014

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

UNION GAS LIMITED  
 2014-2015 Transportation Contracting Analysis

	Route	Point of Supply	Basis Differential \$US/mmBtu	Supply Cost \$US/mmBtu	Unitized Demand Charge \$US/mmBtu	Commodity Charge \$US/mmBtu	Fuel Charge \$US/mmBtu	100% LF Transportation Inclusive of Fuel \$US/mmBtu	Landed Cost \$US/mmBtu	Landed Cost \$Cdn/G	Point of Delivery
	(A)	(B)	( C )	(D) = Nymex + C	(E)	(F)	(G)	(I) = E + F + G	(J) = D + I	(K)	(L)
(2)	PEPL (2012-2017)	Panhandle Field Zone	-0.302	3.8152	0.3200	0.0441	0.1839	0.5480	\$4.36	\$4.41	Ojibway
	Dawn	Dawn	0.256	4.3735	0.0000	0.0000	0.0000	0.0000	\$4.37	\$4.42	Dawn
(2)	Trunkline/Panhandle	Trunkline Field Zone 1A	-0.107	4.0102	0.1923	0.0275	0.1531	0.3729	\$4.38	\$4.43	Ojibway
*	Michcon to St. Clair	SE Michigan	0.171	4.2883	0.0320	0.0000	0.0699	0.1019	\$4.39	\$4.44	St. Clair
(2)	TCPL Niagara	Niagara	0.156	4.2735	0.1409	0.0000	0.0069	0.1478	\$4.42	\$4.47	Kirkwall
*	PEPL - (Mkt Quote)	Panhandle Field Zone	-0.302	3.8152	0.4200	0.0441	0.1839	0.6480	\$4.46	\$4.51	Ojibway
(2)	Panhandle Longhaul (2010-2017)	Panhandle Field Zone	-0.302	3.8152	0.4251	0.0441	0.1839	0.6531	\$4.47	\$4.52	Ojibway
	Vector 1 Year (Mkt Quote)	Chicago	0.115	4.2329	0.2100	0.0018	0.0406	0.2524	\$4.49	\$4.53	Dawn
(2)	Vector (2008-2016)	Chicago	0.115	4.2329	0.2500	0.0018	0.0406	0.2924	\$4.53	\$4.58	Dawn
	ANR-Michcon-Union (Gulf)	ANR South East	-0.102	4.0152	0.3579	0.0161	0.1622	0.5361	\$4.55	\$4.60	St. Clair
	GLGT to TCPL	Northern Michigan	0.191	4.3083	0.2851	0.0074	0.0274	0.3199	\$4.63	\$4.68	Dawn
	ANR-GLGT-TCPL	Fayetteville	-0.076	4.0419	0.5498	0.0216	0.1213	0.6926	\$4.73	\$4.79	Dawn
(2)	Alliance/Vector (2000-2015)	CREC	-0.635	3.4822	1.7201	-0.4098	0.1934	1.5037	\$4.99	\$5.04	Dawn
(1)	TCPL SWDA	Empress	-0.362	3.7550	1.4045	0.0000	0.1220	1.5265	\$5.28	\$5.34	Dawn
(2)	TCPL CDA	Empress	-0.362	3.7550	1.5237	0.0000	0.1312	1.6549	\$5.41	\$5.47	Union CDA

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

Assumptions used in Developing Transportation Contracting Analysis:

Annual Gas Supply & Fuel Ratio Forecasts	Point of Supply Col (B) above	Nov 2014 - Oct 2015	Average Annual Gas Supply Cost \$US/mmBtu Col (D) above	Fuel Ratio Forecasts Col (G) above
Henry Hub (NYMEX)	Henry Hub	\$4.12	\$4.12	
PEPL (2012-2017)	Panhandle Field Zone	\$3.82	\$3.82	4.82%
Dawn	Dawn	\$4.37	\$4.37	0.00%
Trunkline/Panhandle	Trunkline Field Zone 1A	\$4.01	\$4.01	3.82%
Michcon to St. Clair	SE Michigan	\$4.29	\$4.29	1.63%
TCPL Niagara	Niagara	\$4.27	\$4.27	0.16%
PEPL - (Mkt Quote)	Panhandle Field Zone	\$3.82	\$3.82	4.82%
Panhandle Longhaul (2010-2017)	Panhandle Field Zone	\$3.82	\$3.82	4.82%
Vector 1 Year (Mkt Quote)	Chicago	\$4.23	\$4.23	0.96%
Vector (2008-2016)	Chicago	\$4.23	\$4.23	0.96%
ANR-Michcon-Union (Gulf)	ANR South East	\$4.02	\$4.02	4.04%
GLGT to TCPL	Northern Michigan	\$4.31	\$4.31	0.64%
ANR-GLGT-TCPL	Fayetteville	\$4.04	\$4.04	3.00%
Alliance/Vector (2000-2015)	CREC	\$3.48	\$3.48	5.55%
TCPL SWDA	Empress	\$3.76	\$3.76	3.25%
TCPL CDA	Empress	\$3.76	\$3.76	3.50%

Sources for Assumptions:

Gas Supply Prices (Col D): ICE July 9, 2014  
 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 = \$1.067 CDN From Bank of Canada Closing Rate July 2, 2014  
 Energy Conversions (Col K) 1 dth = 1 mmBtu = 1.055056  
 Union's Analysis Completed: July 2014

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

UNION GAS LIMITED  
2014-2017 Transportation Contracting Analysis - Scenario Analysis

	<u>Route</u>	<u>Point of Supply</u>	<u>Basis Differential</u> \$US/mmBtu	<u>Supply Cost</u> \$US/mmBtu	<u>Unitized Demand</u> <u>Charge</u> \$US/mmBtu	<u>Commodity</u> <u>Charge</u> \$US/mmBtu	<u>Fuel Charge</u> \$US/mmBtu	<u>100% LF</u> <u>Transportation</u> <u>Inclusive of Fuel</u> \$US/mmBtu	<u>Landed Cost</u> \$US/mmBtu	<u>Landed Cost</u> <u>\$Cdn/Gj</u>	<u>Point of</u> <u>Delivery</u>
	(A)	(B)	(C)	(D) = Nymex + C	(E)	(F)	(G)	(I) = E + F + G	(J) = D + I	(K)	(L)
(1)	Dawn	Dawn	0.117	5.6390	0.0000	0.0000	0.0000	0.0000	\$5.64	\$5.70	Dawn
(2) *	TCPL Long Haul	Empress	-1.133	4.3887	1.3130	0.0000	0.0900	1.4029	\$5.79	\$5.86	Union SSMDA
(2)(3)	TCPL Long Haul	Empress	-1.133	4.3887	1.3559	0.0000	0.0900	1.4459	\$5.83	\$5.90	Union SSMDA
	Michcon/GLGT/TCPL	Northern Michigan	-0.110	5.4117	0.4063	0.0091	0.0904	0.5058	\$5.92	\$5.99	Union SSMDA
(3)	Michcon/GLGT/TCPL	Northern Michigan	-0.110	5.4117	0.4492	0.0091	0.0904	0.5488	\$5.96	\$6.03	Union SSMDA

(1) For Reference Only  
(2) Path contracted for by Union  
(3) Assumes \$0.046 Cad/GJ/Day surcharge for LCMI surcharge as proposed by TCPL Effective Jan 1, 2015  
\* indicates path referenced in evidence for this analysis

Assumptions used in Deveoping Transportation Contracting Analysis:

	<u>Annual Gas Supply &amp; Fuel</u> <u>Ratio Forecasts</u>	<u>Point of Supply</u> <u>Col (B) above</u>	<u>Nov 2014 - Oct</u> <u>2015</u>	<u>Nov 2015 - Oct</u> <u>2016</u>	<u>Nov 2016 - Oct</u> <u>2017</u>	<u>Average Annual</u> <u>Gas Supply Cost</u> <u>\$US/mmBtu</u> <u>Col (D) above</u>	<u>Fuel Ratio</u> <u>Forecasts</u> <u>Col (G) above</u>
	Henry Hub (NYMEX)	Henry Hub	\$4.80	\$5.87	\$5.90	\$5.52	
	Dawn	Dawn	\$5.04	\$5.48	\$6.40	\$5.64	0.00%
	TCPL Long Haul	Empress	\$3.83	\$4.23	\$5.11	\$4.39	2.05%
	TCPL Long Haul	Empress	\$3.83	\$4.23	\$5.11	\$4.39	2.05%
	Michcon/GLGT/TCPL	Northern Michigan	\$4.80	\$5.25	\$6.18	\$5.41	1.67%
	Michcon/GLGT/TCPL	Northern Michigan	\$4.80	\$5.25	\$6.18	\$5.41	1.67%

Sources for Assumptions:

Gas Supply Prices (Col D): ICF Q1 2014 Base Case

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

Transportation Tolls (Cols E & I)Tolls in effect on Alternative Routes at the time of Union's Analysis. TCPL tolls assume current Approved tolls until Jan 1, 2015 when Settlement Tolls 1st Amendment are assumed

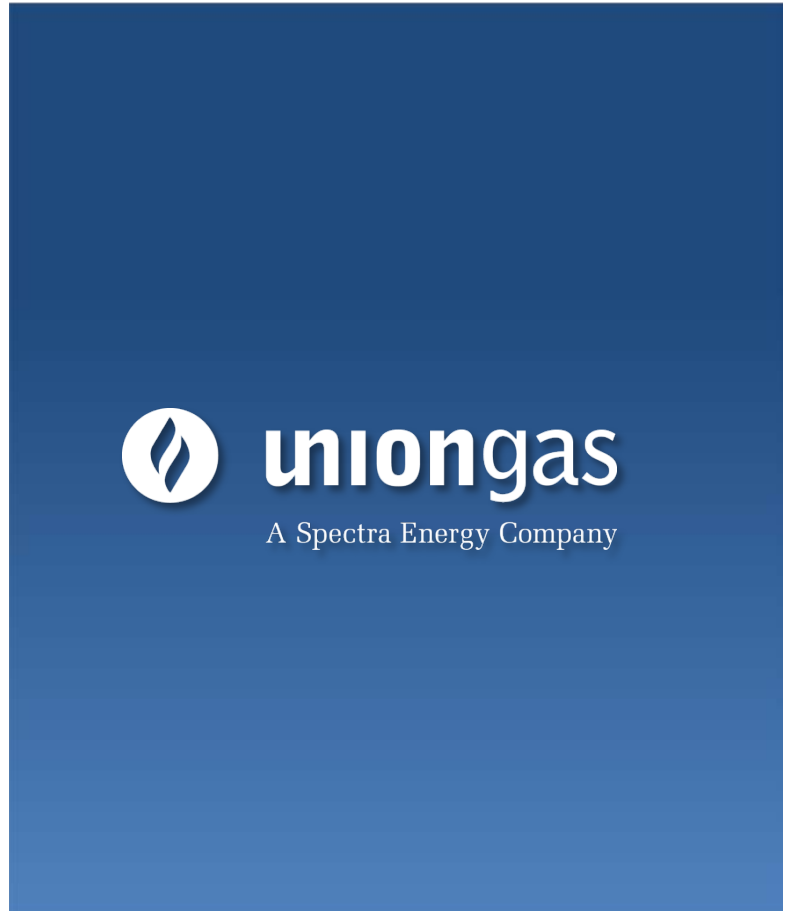
Foreign Exchange (Col K) \$1 US = \$1.067 CDN From Bank of Canada Closing Rate January 2, 2014

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

Union's Analysis Completed: Jan-14

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





## **2014-2015 Gas Supply Plan Memorandum**

**April 2015**

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## **1. INTRODUCTION**

This document provides an overview of the 2014/2015 Gas Supply Plan and includes the underpinning assumptions and the market context from which it was formed. This includes future trends that may impact the gas supply plan going forward.

### **1.1 Overview of the Gas Supply Planning Process**

The objective of Union's Gas Supply Plan is to create an efficient supply portfolio that will meet the demands of sales service and bundled direct purchase ("DP") customers, while meeting the overall gas supply planning principles.

Union's Gas Supply Plan provides the strategic direction guiding the Company's long-term supply acquisition process. The Plan does not commit Union to the acquisition of a specific supply type or facility, nor does it preclude Union from pursuing a particular supply. Rather, the Gas Supply Plan identifies the transportation and supply volume requirements to meet annual, seasonal and peak day demand for sales service and bundled DP customers. Union recognizes that the gas supply planning process is dynamic, reflecting changing market forces. Union's rate setting mechanism and associated gas supply deferral accounts support a direct pass through of gas supply commodity and transportation costs to ratepayers.

### **1.2 Summary of Union North and Union South**

In Ontario, natural gas is a significant and critical energy source relied on for providing heat and hot water to homes and institutions, fuelling manufacturing plants and generating electricity. Approximately 950 PJ of natural gas is consumed annually in Ontario in residential, commercial, industrial and power generation markets. Approximately 70% of homes in Ontario use natural gas for heating and producing hot water. These applications operate on demand, meaning that consumers expect the energy to be readily available to be used when needed.

Home owners in Ontario depend on a reliable supply of natural gas. The natural gas infrastructure supporting Ontario needs to be robust reflecting the critical role it plays in Ontario, and flexible to allow Ontario to position itself to secure long-term access to economic supply in light of the changing North American supply dynamics.

Union serves approximately 1.4 million customers in northern, eastern and southern Ontario through an integrated network of over 67,000 kilometres of natural gas distribution pipelines. Total consumption in Union's franchise areas during 2013 was approximately 555 PJ.

Union operates storage and transmission assets that include 166 PJ of underground natural gas storage at the Dawn Hub and the Dawn-Parkway transmission system. Union's Dawn-Parkway system is an integral part of the natural gas delivery system for Ontario, Québec and U.S. Northeast residents, businesses, power plants and industry. The Dawn-Parkway system connects these consuming markets to most of North America's major supply basins, the largest area of underground natural gas storage in North America, and the liquid Dawn Hub.

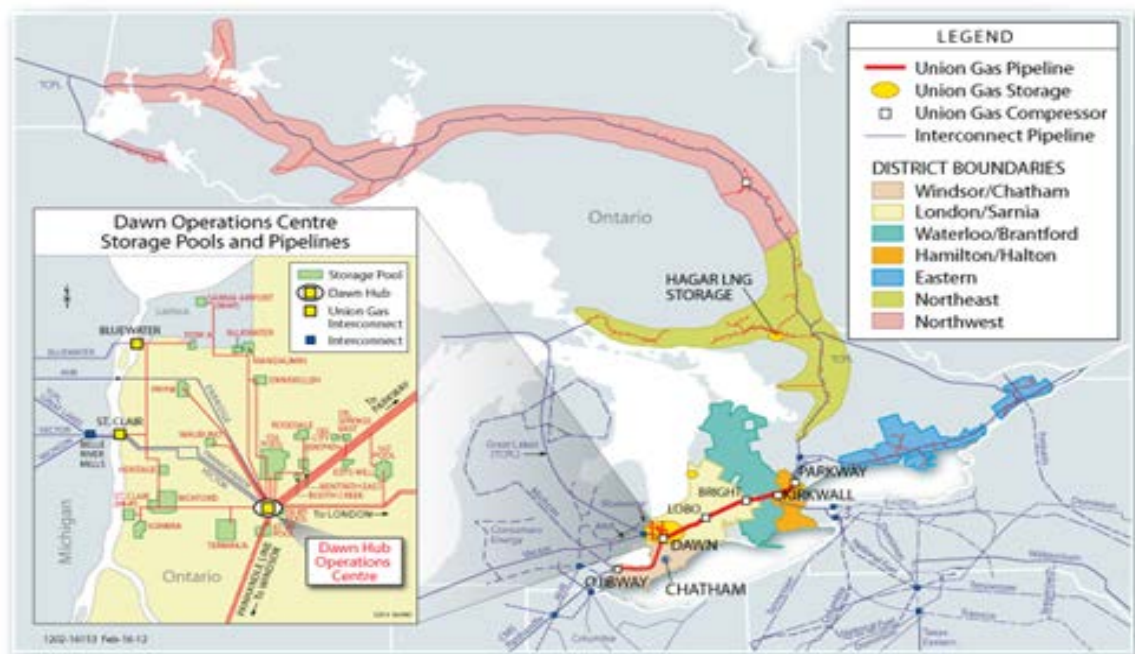
Union's Dawn Hub has been recognized as a key market hub for the Province of Ontario and the entire Great Lakes region. The growth of Dawn as an energy hub and the availability of competitively and transparently priced natural gas supplies and services that come with an effective and efficient trading hub have benefitted all Ontarians. Dawn is one of the most physically traded, liquid hubs in North America. The liquidity of Dawn is the result of the

combination of access to underground storage, interconnections with upstream pipelines, take away capacity to growth markets, a large number of buyers and sellers of natural gas, and price transparency.

Of the 1.4 million customers that Union serves, over 1.2 million are sales service customers that rely on Union to provide their gas supply. These customers are primarily residential and small commercial customers. The remaining customers rely on DP arrangements with marketers and alternate suppliers to meet their gas supply needs. From a volume perspective, sales service customers consumed 169 PJ in 2013, while DP customers consumed 386 PJ.

For gas supply planning purposes, Union is divided into two separate operating areas: Union South and Union North. To serve Union South, Union contracts for transportation capacity on multiple upstream pipelines to access several supply basins or market hubs. These upstream pipelines provide access to supplies in Western Canada, Gulf of Mexico, Chicago, the U.S. mid-continent and the Appalachian shale basins. Union may also serve Union South by purchasing supply at Dawn. Union South includes four Districts, Windsor/Chatham, London/Sarnia, Waterloo/Brantford and Hamilton/Halton shown in Figure 1 below.

**Figure 1**



Union North is located throughout Northern and Eastern Ontario, from the Manitoba border in the west, to Cornwall in the east. Union North is depicted by the Eastern, Northeast and Northwest Districts shown in Figure 1 above. Union North is further divided into six delivery areas for gas supply planning purposes. Five of the six delivery areas align with delivery areas on the TransCanada Pipeline Limited (“TransCanada”) Mainline. From West (Manitoba border) to East (Cornwall) these delivery areas are:

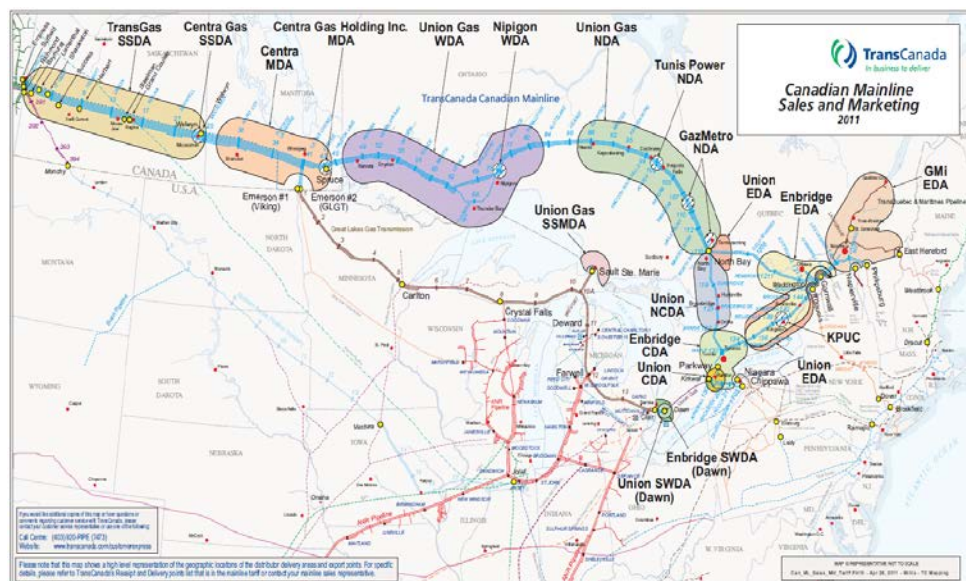
- Manitoba Delivery Area (“MDA”)
- Union Western Delivery Area (“Union WDA”)
- Union North Delivery Area (“Union NDA”)
- Union Sault Ste. Marie Delivery Area (“Union SSMDA”)

- Union North Central Delivery Area (“Union NCDA”)
- Union East Delivery Area (“Union EDA”)

The delivery area that does not align is Union’s Manitoba Delivery Area, which is connected to the TransCanada Mainline at the Spruce interconnect in the Centra MDA by two additional pipelines (Centra Transmission Holdings and Centra Pipeline Minnesota).

A map of these delivery areas is provided in Figure 2 below.

**Figure 2**



Today, all of the customers in Union North are served directly from TransCanada interconnects from the Western Canadian Sedimentary Basin (“WCSB”). Union uses a portfolio of contracted firm assets including TransCanada long-haul firm transportation, TransCanada short-haul firm transportation and TransCanada firm Storage Transportation Service (“STS”) to meet the needs of Union North. In the future, Union anticipates serving a portion of Union North delivery areas with short-haul firm transportation from Dawn replacing long-haul transportation from Empress.

Union provides distribution services to all customers, however customers continue to have the option to either purchase their supply from the utility or arrange supply through a DP arrangement. Union’s in-franchise customers fall into four distinct categories.

- **Sales service:** Union acquires supply and transportation capacity for these customers in Union North and Union South. Sales service demand requirements are included in the Gas Supply Plan.
- **Bundled DP:** These customers acquire their own supply with Union providing transportation options. Currently, Union North bundled DP customers deliver their supply to Union at Empress and Union uses TransCanada services to bring the supply to market. In Union South, customers are given a vertical slice (a proportionate amount of the transportation that Union holds in the Union South portfolio) when they first choose the DP option. The DP customers then manage this capacity subject to Union’s DP transportation policies. These customers are included in the Gas Supply Plan.

- Unbundled DP: These customers acquire their own supply and transportation from an energy marketer and are not considered within the Gas Supply Plan. This service is available to small residential, commercial and industrial customers.
- Transportation service (or T-Service) DP: These customers acquire their own supply and transportation and are not considered within the Gas Supply Plan. This service is available to large contract commercial and industrial customers.

Union performs the role of system operator and supplier of last resort. As system operator, Union manages many operational factors. These include:

- seasonal balancing requirements for sales service customers;
- weather variances outside of checkpoint balancing for bundled DP customers;
- changes in supply and balancing requirements as customers move between sales service and DP;
- differences between daily receipts from TransCanada and the demands of all end users including transportation service customers in the Union North; and,
- unaccounted for gas and compressor fuel variances.

As supplier of last resort, Union is the default supplier to its in-franchise customers. A supplier of last resort must ensure it has the assets or can acquire the assets to serve customers that others choose not to serve or fail to serve (e.g. for reason of financial failure), or any customer who chooses to be a sales service customer and have Union provide gas supply services. DP customers can revert back to sales service on short notice.

## **2. MARKET CONTEXT**

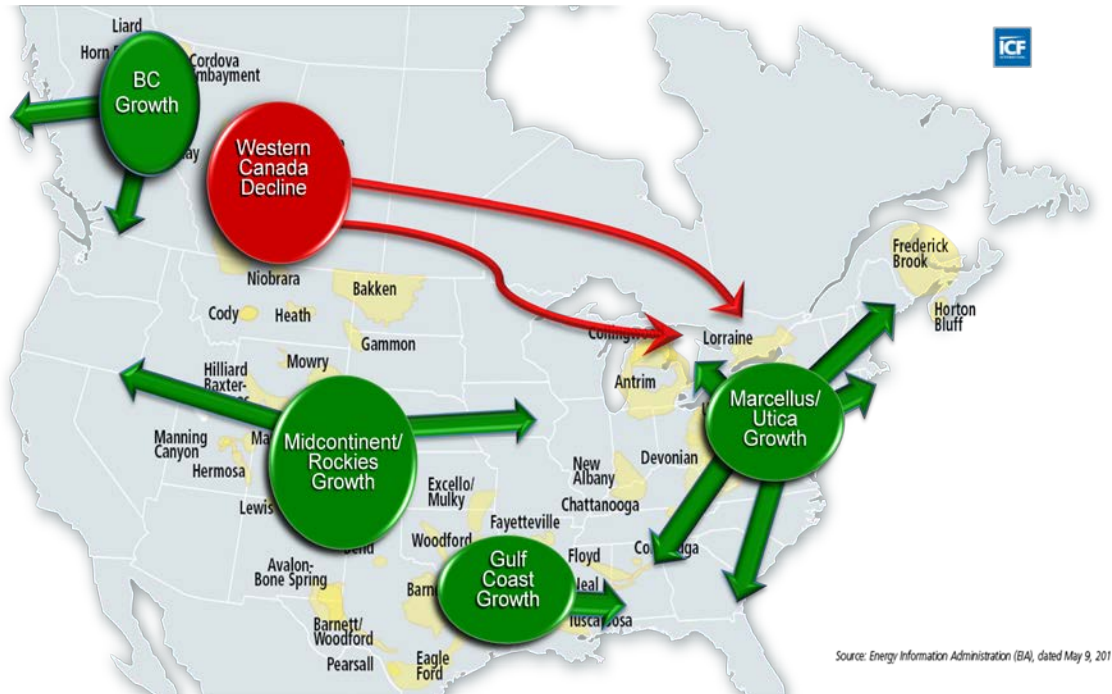
### **2.1 Emerging Supply Sources**

North American natural gas markets continue to experience dramatic change. Production from mature North American natural gas basins is in decline while new production basins have emerged and continue to grow. While natural gas reserves still exist in mature natural gas basins, the economics of natural gas production favors new emerging production basins such as Marcellus and Utica Shale. This shift in terms of where natural gas is being produced is fundamentally changing how natural gas flows in North America. Figure 3 illustrates projected flow changes in North America.



Figure 3

### Gas Supply Basin Trends



Today shale gas comprises over one-third of all natural gas production in the United States. Shale gas as a share of total natural gas production in 2013 was 36% in the United States and 15% in Canada. According to the U.S. Energy Information Administration (“EIA”) the U.S. Northeast (Marcellus/Utica) production already surpassed 14 Bcf/d, providing approximately 18% of the total U.S. natural gas production. In its “2014 Annual Energy Outlook” the EIA forecasts dry shale gas to constitute 51% of U.S. domestic production in 2035. The Appalachian basin has been one of the most prolific natural gas supply growth areas in North America. This emerging and abundant supply is located within the Great Lakes region in close proximity to Ontario and other eastern North American consuming markets.

The rapid increase in natural gas supply has put downward pressure on North American natural gas prices and volatility. This has impacted market behavior and has driven eastern North American customers to increase the amount of shale gas supply and decrease the amount of supply from traditional supply basins requiring long-haul transportation in their portfolios. For eastern customers that have a choice, these fundamental changes in supply economics will mean that natural gas supply will increasingly be sourced from cost competitive shale gas in closer proximity to the market and less from traditional sources.

Marcellus and Utica shale gas present Ontario consumers, including power, industrial, commercial and residential, with an opportunity to diversify their natural gas supply portfolio and replace declining WCSB supply. Accessing this new supply will be essential to providing diversity of supply and affordable energy prices to fuel Ontario’s economic competitiveness. With new infrastructure, access to these new, proximate and abundant sources of supply can increase reliability and security for the Ontario natural gas supply portfolio.



## 2.2 Western Canadian Supply

The majority of Ontario's natural gas supply needs for the past five decades were met through the large resources of the WCSB. Natural gas from Alberta was supplied to Ontario on the TransCanada mainline either across northern Ontario or through the U.S. via Great Lakes Gas Transmission ("GLGT"). Starting in the 1980's, other pipelines such as the Northern Border Pipeline, the Foothills pipeline and eventually the Vector pipeline (2000), were built to transport WCSB gas to markets east of Alberta, enhancing security of supply and reliability by providing diversity. Over the past ten years, two key trends have been occurring in Alberta: i) Alberta traditional production has matured and is in decline; and ii) domestic use of natural gas in Alberta has increased.

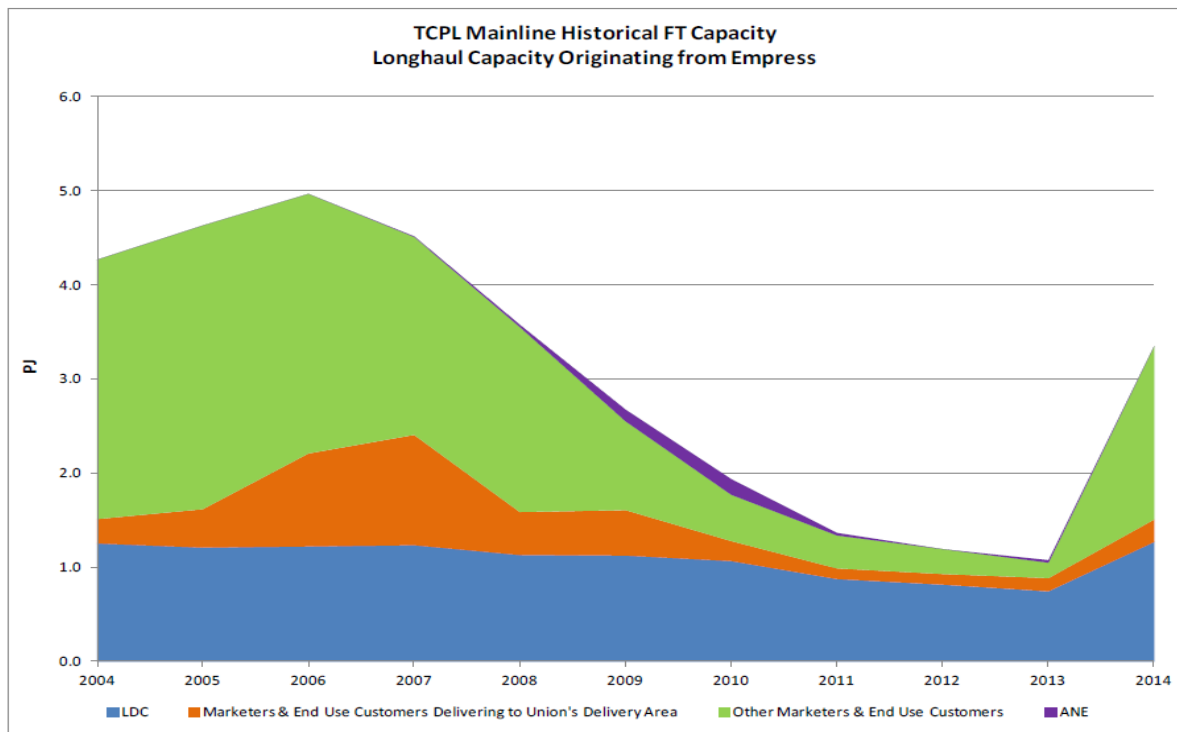
Although shale gas in Alberta and BC is a promising resource with growing production, it is unclear whether these new supplies will be attracted to Eastern markets or LNG export markets.

Western Canadian natural gas has been, and continues to be, an important source of supply for Ontario. However, as a result of the trends listed above, there is a declining amount of conventional supply available to flow east to Ontario, leaving the TransCanada Mainline and other pipelines connected to the WCSB increasingly challenged. The lower amount of WCSB conventional supply available requires new supply sources to support Ontario's natural gas supply portfolio. To feed Ontario's energy-intensive industry, natural gas-fired generators, businesses and homes, new supply will be required. Union, like other eastern LDCs, is proactively looking to diversify its supply portfolio with natural gas sourced from other production basins. Beginning in the mid-2000's, there has been a trend in the market away from TransCanada long-haul from Empress to short-haul back to Dawn.

Figure 4 shows the long-haul firm transportation contracts held on TransCanada by customer category starting in 2004. Between 2005 and 2013, there was a continuous decline in the amount of long-haul firm transportation contracts on the TransCanada Mainline. Marketers and end use customers have de-contracted the greatest amount of long-haul firm transportation capacity at almost 4 PJ/d. As tolls from Empress to eastern markets increased above the difference in commodity price between Empress and trading points in eastern markets, marketers de-contracted to seek more economic alternatives.

Since the release of the National Energy Board's RH-003-2011 Decision, firm long-haul contracts from Empress on the TransCanada Mainline have increased by approximately 2.3 PJ/d (over 2 Bcf/d). These firm long-haul transportation services have largely been secured by shippers on a short-term non renewable basis as an alternative to contracting for discretionary services (IT and STFT) on the TransCanada Mainline until further short-haul capacity from Dawn to eastern markets is available.

**Figure 4**



(Source: TransCanada CDE Report – January 2004 to June 2014)

### 2.3 Natural gas price signals

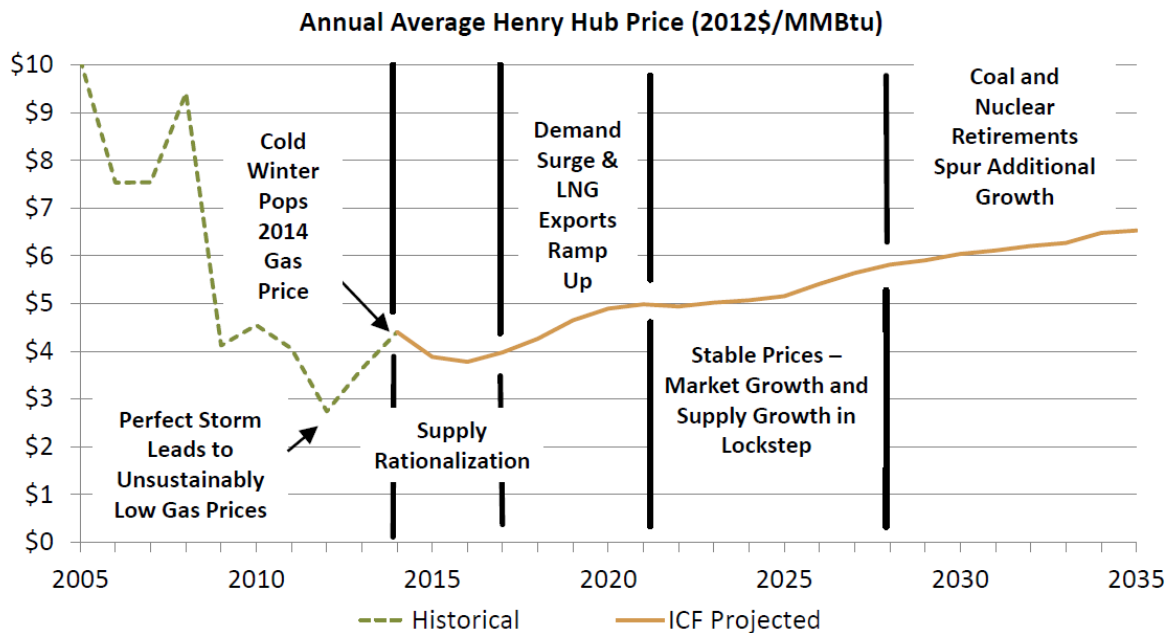
As the emergence of shale production has increased dramatically since 2007, the increase in available supply has put downward pressure on natural gas prices. As shown in Figure 5 below, the price of natural gas dropped from a high of nearly \$10 USD/mmbtu in 2005 to current levels under \$5 USD/mmbtu.

After the price run up related to the winter of 2013/2014 (driven by widespread cold weather and hence increased demand), in the near term to 2016, prices of natural gas at Henry Hub are expected to continue to hover between \$4.00-\$5.00 USD/mmbtu. This is predominantly driven by continued increased productivity in shale plays (particularly in the Marcellus), offset by growth potential in the industrial and power markets. As demand for natural gas rises, the speed with which producers respond will dictate how much and how quickly gas prices respond.

In the long-term, between 2020 and 2030, gas prices at Henry Hub are expected to rise to near \$6 USD/mmbtu. This price reflects sufficient incentive for producers to continue to develop supply sources, while not so high to reduce market growth. Beyond 2030, prices are projected to continue a gradual increase towards \$7 USD/mmbtu, reflecting the increased demand for natural gas from electricity generators and retirement of nuclear facilities.

These projections, provided by ICF International (“ICF”) in August, 2014, are depicted in Figure 5.

**Figure 5**



## 2.4 Transportation / Pipeline changes

As supply and transportation market options change, so does Union's gas supply mix and how gas is transported to Ontario. Unchanged, however, is Union's application of the gas supply planning principles and the requirement to ensure secure, reliable supplies to serve its customers at prudently incurred costs. When Union considers a new supply basin, new upstream transportation capacity or existing transportation capacity up for renewal, cost alternatives are considered. The landed cost analysis is completed and filed when a new transportation path is contracted for, in accordance with the Board-approved EB-2005-0520 Settlement Agreement. The analysis for new transportation paths included in Union's 2014/2015 Gas Supply Plan will be filed as part of Union's 2014 Deferral Disposition and Earnings Sharing evidence (EB-2015-0010, Exhibit A, Tab 4).

Until the 1950's, Union sourced its natural gas supplies through local Ontario production, manufactured gas, and imported U.S. supplies. In the late 1950's, the construction of the TransCanada Mainline connected western Canadian supplies to eastern Canadian consuming markets. By the 1990's, up to 90% of Union's system supply portfolio was sourced from western Canada, and was predominantly transported to Ontario via TransCanada. Through the 1990's, Union introduced more supply diversity into the Union South portfolio to increase diversity and take advantage of economic supply options from U.S. locations (i.e. Panhandle, Vector).

Given the changes in flows of gas supply across North America described earlier, and as discussed in EB-2013-0074 and EB-2012-0433, Union is working to increase the level of supply diversity in Union North by replacing a portion of long-haul TransCanada transportation from Empress with short-haul deliveries from Dawn to the Union EDA and

Union NDA. This significant change will afford Union North greater access to Dawn and the multiple supply basins Dawn connects to, providing security and diversity of supply. This is discussed in more detail in Section 6.2.

### **3 GAS SUPPLY PLANNING OBJECTIVES AND PRINCIPLES**

The Gas Supply Plan defines the gas supply requirements and the necessary upstream transportation capacity and assets to meet customers' annual, seasonal and design day gas delivery. Union's Gas Supply portfolio is guided by a set of principles that are designed to ensure customers receive secure, diverse gas supply at a prudently incurred cost and minimal risk. The principles are as follows:

- Ensure secure and reliable gas supply to Union's service territory;
- Minimize risk by diversifying contract terms, supply basins and upstream pipelines;
- Encourage new sources of supply as well as new infrastructure to Union's service territory;
- Meet planned peak day and seasonal gas delivery requirements; and,
- Deliver gas to various receipt points on Union's system to maintain system integrity.

These principles have been presented to and accepted by the Board on a number of occasions. Most recently these principles were presented to the Board in Union's 2013 Cost of Service proceeding (EB-2011-0210) and the 2013/2014 Gas supply Memorandum filed as part of the 2013 Deferral Disposition proceeding (EB-2014-0145).

Cost is an important consideration in the Gas Supply Plan; however, Union must balance the benefits of all the attributes of the guiding principles. A description of each guiding principle and how this balance is achieved, is provided below.

#### **3.1 Ensure secure and reliable gas supply to Union's service territory**

Union has an obligation to ensure its firm sales service and bundled DP customers (i.e. residential and commercial customers) have access to secure and reliable gas supply sources. This includes firm upstream transportation contracts to deliver this supply to Union's franchise areas. Union also provides a load balancing function for all sales service and bundled DP customers to manage the seasonal differences between supply and demand. Union's obligation is to provide gas supply and transportation capacity for sales service customers and transportation capacity for bundled DP customers. To meet this obligation Union uses a combination of firm upstream transportation contracts, Dawn sourced supply and storage capacity. Union ensures adequate firm capacity is available on a sustained basis to meet firm design day and annual demands through transportation capacity contractual rights. This includes a combination of long-term transportation contracts with third parties, transportation contracts with guaranteed renewal rights, as well as dedicated Union storage, transmission and distribution assets.

#### **3.2 Minimize risk by diversifying contract terms, supply basins and upstream pipelines**

Union's current upstream transportation portfolio and related supply are diversified with respect to supply basin access, gas supply producers and marketers, contract term and transportation service provider. Union's approach to diversifying the portfolio of firm assets is analogous to a prudent investment portfolio where diversity of funds, risk and term are critical to a successful portfolio.

In Union South, Union utilizes capacity on multiple upstream pipelines to access several supply basins or market hubs. These pipelines provide access to supplies in Western Canada, Gulf of Mexico, Chicago, the U.S. mid-continent and Marcellus through Niagara. The Gas Supply Plan also includes Dawn purchases as part of the Union South supply portfolio. Union purchases gas from suppliers under a North American Energy Standards Board ("NAESB") contract. Union has NAESB contracts with approximately 80 suppliers. The portfolio of suppliers and upstream transportation contracts provides diversity and reduces the exposure to price volatility for Union South customers. It also provides Union the flexibility to manage to its seasonal inventory targets.

Union also manages risk to customers by diversifying the length of the contract terms to provide flexibility in managing the upstream transportation portfolio. In Union South, contract terms range from one to fifteen years. Union holds renewal rights on the majority of these contracts at expiry date. In Union North, Union's long-haul TransCanada firm contracts renew on a two year rolling basis. Union is taking steps to introduce Dawn supplies into the Union North portfolio starting in 2015.

For gas supply purchases, the sales service supply portfolio consists of annual and multi-year terms, seasonal, monthly, and in rare cases, daily purchases. In addition, Dawn delivered service in the Union South supply portfolio can be re-sized monthly and annually to manage changes in demand.

### **3.3 Encourage new sources of supply as well as new infrastructure to Union's service territory**

Union continues to seek new sources of cost-effective supplies to serve its customer base either through accessing new supply sources with existing infrastructure or participating in longer-term projects to encourage the development of new infrastructure to and through Ontario. The development of new supply sources and the related infrastructure often require long-term commitments. In the Board's EB-2010-0300 / EB-2010-0333 Decision (p. 7), the Board recognized the role that regulated utilities play in supporting new infrastructure development:

*"The Board recognized that the enrolment of regulated utilities for such long term arrangements would be a necessary and desirable element in new infrastructure development..."*

Union supports the development required to bring new supply sources to or through Ontario. For example, Union entered into an open season and signed a ten year agreement with TransCanada for capacity on the Niagara to Kirkwall path effective November 1, 2012. This path provided Ontario customers with access to supplies from the Marcellus shale basin.

In addition, Union supports the infrastructure required to allow new supply sources to flow to eastern and northern Ontario. In order for all Ontario natural gas customers to access new emerging supply, new infrastructure at Parkway and between Parkway and Maple on the TransCanada Mainline is required. The required infrastructure on Union and Enbridge systems

has been approved by the Board (EB-2012-0433 / EB-2013-0074 / EB-2012-0451). In its Decision, the Board stated:

*“The project is part of a group of projects, including Enbridge’s GTA Segment A pipeline and TransCanada’s proposed King’s North pipeline that will facilitate greater flows of mid-continent natural gas into Dawn for transportation to downstream markets. The projected benefits of these projects stem from an enhanced diversity of supply, gas costs savings, and enhanced liquidity at Dawn.”(p.22)*

This infrastructure will provide additional diversity to Union North starting November 1, 2015.

### **3.4 Meet planned peak day and seasonal gas delivery requirements**

Inherent in the obligation to meet sales service and bundled DP customers’ gas supply needs is the requirement to construct a gas supply portfolio that will meet:

- Design day requirements – to provide service to sales service and bundled DP customers on the day of highest anticipated peak or design day demand in each delivery area.
- Seasonal/annual requirements – to be able to meet the annual requirements of the markets while balancing the summer / winter load changes.

A further description of how Union meets these requirements is provided in Section 5.

### **3.5 Deliver gas to various receipt points on Union’s system to maintain system integrity**

The Union South transportation portfolio has delivery points at Dawn, Parkway, Kirkwall, St. Clair and Ojibway. It is Union’s practice to receive gas at multiple points. This practice provides two benefits.

First, it maintains system integrity as Union is not reliant on one receipt point for all of its gas supplies. A system interruption or upset at one receipt point would not cause a complete supply failure to Union’s system.

Second, delivery to multiple receipt points allows Union to minimize its pipeline facilities in the area. For example, the delivery of gas at Ojibway enables the Dawn-Ojibway transmission system to be smaller than would otherwise be necessary to meet design day requirements. In this case, if Union delivers gas to Ojibway, Union does not have to ship the equivalent volume from Dawn to Ojibway.

## **4 GAS SUPPLY PLANNING PROCESS**

Union’s Gas Supply Plan is a five-year rolling plan that is prepared annually, with the primary focus being the first two years. The annual gas supply planning process is summarized at Appendix A. The Gas Supply Plan is finalized and receives executive approvals in the third quarter each year.

The Gas Supply Plan identifies the efficient combination of upstream transportation, supply purchases, and storage assets required to serve sales service and bundled DP customers’ annual, seasonal and design day gas delivery requirements, while adhering to the planning principles described earlier. Once the design day demands are calculated, the planning process continues with a monthly forecast by market of total consumption by each delivery area in Union North and

Union South. The Gas Supply Plan is then used to generate a forecast of natural gas supplies, transportation and storage services required by Union's in-franchise sales service and bundled DP customers. The upstream transportation contracts in the Gas Supply Plan, along with storage assets, are managed by Union to provide an integrated service to all sales service and bundled DP customers. The costs for both the supply and the transportation services identified in the Gas Supply Plan are recovered through commodity, transportation and storage charges.

Union's integrated supply planning is a complex process that incorporates demand related items such as customer growth, normalized weather, design day requirements, customer consumption patterns and economic outlooks. Demands are analyzed relative to Union's existing system design and gas supply portfolio (supply and transportation). The firm needs of these customers are analyzed to ensure the appropriate level of firm transportation and storage assets are held to meet design day, seasonal and annual demand. The Gas Supply Plan is appropriately sized and there are no assets in the Gas Supply Plan in excess of those necessary to meet firm customer requirements.

To complete the Plan, Union uses gas supply planning software known as SENDOUT. SENDOUT, supplied by VENTYX, is a widely recognized gas supply planning tool and is used by a number of LDC's in North America. Union has used this software for 27 years and it has been presented in a number of rate applications since 1987.

Union uses SENDOUT to ensure that the assets incorporated in the Gas Supply Plan meet annual, seasonal, and design day demands. SENDOUT determines the amount of capacity, supply and associated costs required to meet customer demands. Union's five-year Gas Supply Plan includes the following key inputs and assumptions:

- The design day demand forecast for each Union North delivery area;
- Union's in-franchise monthly demand forecast based upon customer location, supply arrangement, storage requirement and service type (excludes Transportation Service and Unbundled service);
- A monthly commodity price forecast using the same pricing methodology as the Quarterly Rate Adjustment Mechanism ("QRAM") process;
- Upstream transportation tolls in effect at the time the forecast was prepared;
- All upstream transportation contracts held by Union plus existing obligated Ontario deliveries for the bundled DP market;
- Sales service and bundled DP storage requirements that are cycled completely each year in the Plan with storage full on November 1 and empty by March 31 assuming normal weather;
- Applicable heating value;
- Sufficient inventory at February 28 to meet the design day requirements for sales service and bundled DP customers;
- No migration between sales service and bundled DP customers for the term of the Plan. Any migration is therefore a risk that needs to be managed by Union; and,
- 9.5 PJ of system integrity space. This storage space is used in a number of ways to maintain the operational integrity of Union's integrated storage, transmission and distribution systems. The Gas Supply Plan has 6.0 PJ of this space filled with system integrity supply while the remaining 3.5 PJ is left empty as contingency space.

The outcome of the annual planning process is a five-year plan that provides a monthly volumetric forecast of supplies (by transportation path) and demands and a monthly forecast of Union's costs to serve its sales service and bundled DP customers. The key inputs and outputs of the Gas Supply Plan are discussed in more detail below.

## **5 UNION'S 2014/2015 GAS SUPPLY PLAN**

The Gas Supply Plan defines the gas supply requirements and the necessary upstream transportation capacity and assets to meet customers' annual, seasonal and design day gas delivery. The key inputs and outputs, as well as the changes, are described in more detail below.

### **5.1 Design Day**

The purpose of the Gas Supply Plan is to determine the appropriate level of assets required to meet firm customer demands for annual, seasonal and design day requirements. To create the Gas Supply Plan, Union must forecast the firm customer demand on the design day as well as annual and seasonal requirements. The main information required to develop the demand includes weather, firm customer demand, forecast demand growth and pipe and/or storage assets which are available.

#### **Weather**

Union ensures assets are available to provide firm service to customers on an extreme cold weather day called the Design Day. The design day is measured in heating degree days ("HDD"). In the gas industry, temperature is translated to hHDD; the colder the temperature, the higher the HDD. A heating degree day is a temperature 1 degree C below 18 degrees C. Therefore an 18 degree HDD would translate to a temperature of 0 degree C on average for the day. Union uses the coldest observed degree day for Union South and each of the six delivery areas in the North.

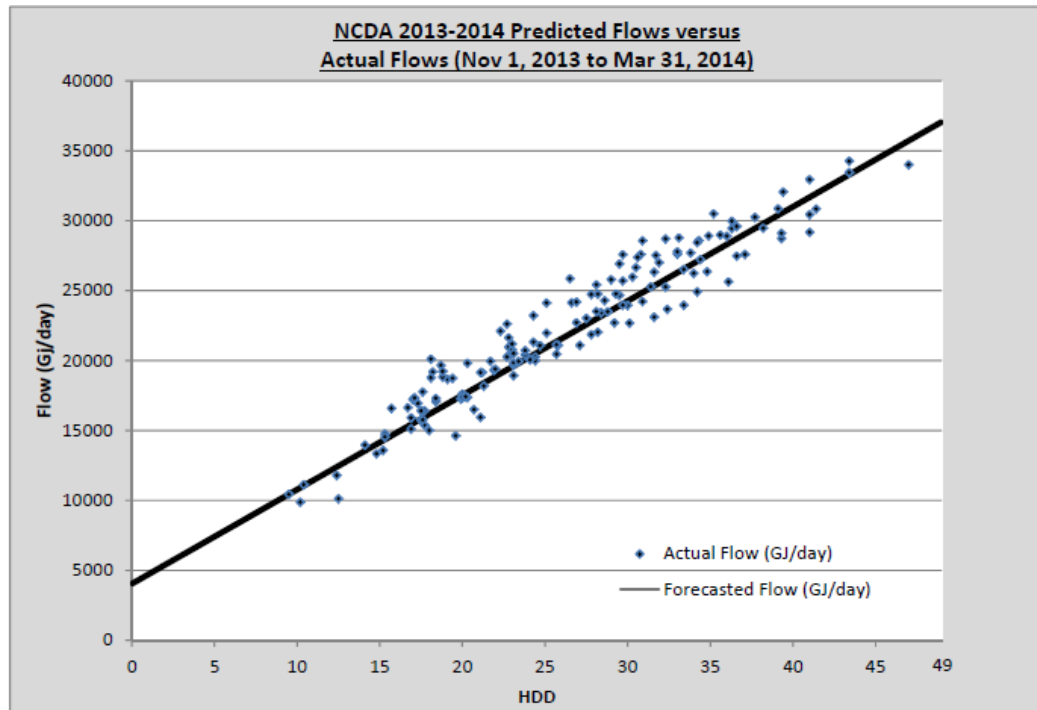
#### **Firm Customer Demand**

The firm customer design day demand is forecast by multiplying the firm use per degree day factor with the coldest observed degree day.

Union develops a trend line using the daily firm customer consumption from the prior winter and the associated daily degree day data. Union extrapolates the calculated trend line to the coldest observed degree day resulting in the estimated design day demand for each delivery area. An illustrative example of the degree day data and the trend line calculation for the NCDA is provided in Figure 6 .



**Figure 6**



### **Forecast**

The design day demand described above is increased by the winter season growth factor reflected in the demand forecast. This forward looking forecast growth factor is added to the firm customer demand noted above, to provide a total forecasted design day demand for each delivery area.

### **Required Assets**

The design day requirements are met by holding storage and transportation capacity. Design day weather does not occur every year, however, the assets must be available should that design day occur given Union's role as the supplier of last resort for sales service and bundled DP customers.

In order to meet these design day requirements for Union South and Union North, Union uses a combination of contracted upstream transportation capacity, and Union's storage, transmission, and distribution assets. The use of storage assets is more cost effective than contracting for full, all year firm upstream transportation capacity. Since Union's storage and transmission assets reside within its South franchise area, the role of the gas supply portfolio is different on a design day in Union South than in Union North. The North design day demand is a direct input into the Gas Supply Plan, while Union South design day demand is an input into the storage and transmission design day plan.

For March 31, Union assumes that the storage levels will be 0 plus 6 PJ of integrity gas remaining for both Union North and Union South. Average winter demands are met through a combination of gas flowing on upstream transportation and storage withdrawals.

The differing methodologies are described below. These methodologies are consistent with what was reviewed in the Sussex report.

### ***5.1.1 Union South Design Day***

Union South design day demand is the total firm requirement of the in-franchise sales service, bundled, unbundled and transportation service customers in the South delivery area.

The design day weather condition for the Union South area is based on the coldest observed degree day experienced in the Union South delivery area. The design degree day for Union South is 43.1 measured at the London airport.

For Union South, the Gas Supply Plan is focused on purchasing upstream supply and transportation to meet Union's annual demand requirements. The annual volume requirement is divided by 365 days such that the upstream pipe flows at 100% utilization each day of the year. During times when usage is less than the upstream supply, the excess supply is injected into storage at Dawn. When demands are greater than the upstream supply, gas is withdrawn from storage and transported to Union South in-franchise customers.

The role of meeting the entire design day needs for Union South resides within the gas storage and transmission system plans. The Gas Supply Plan is only a component of this broader exercise and only manages the average day supply needs for Union South sales customers. To meet the design day requirements of Union's South in-franchise customers, Union must have sufficient volume of gas in storage for the seasonal and firm design day demand requirements (storage plan) and sufficient transportation assets to move the upstream supply and gas out of storage into the transmission pipeline systems and to markets. The transmission system plan requires Union to have enough transmission assets to move the firm design day demand from the systems supply points to its customers on design day. Union's distribution systems are designed to meet peak day requirements. If the transmission or storage assets are not sufficient to meet design day and seasonal requirements, Union will build additional assets or purchase services to meet this shortfall.

Design days do not occur every year, however, the assets must be available should the design day occur. The resources available to meet Union's design day in Union South are shown below in Figure 7.

Although the design degree day of 43.1 has not changed in Union South, the customers' demands on a peak day have increased. The design day requirements in Union South have increased from 2,743 TJ/d to 2,868 TJ/d.

**Figure 7**

<b>Winter 2014/2015 Design Day</b>	
<b><u>Union South Design Day Demand and Resources (TJ/day)</u></b>	
<b>Demand</b>	
Union South*	2,868
<b>Supply</b>	
Storage at Dawn	1,381
Non-obligated (e.g. Power Plants)	188
TCPL Empress to Union CDA	67
Trunkline	21
Panhandle	39
TCPL Niagara	21
Ontario Parkway	359
Alliance/Vector	84
Vector	112
MichCon	11
Ontario Dawn	539
Customer Supplied Fuel	45
<b>Total Supply</b>	<b>2,868</b>
* includes Sales Service, Bundled Direct Purchase, T-service, Unbundled	

### **5.1.2 Union North Design Day**

Union North design day demand is the total firm requirement of the in-franchise sales service and bundled DP customers in each of Union's six Northern delivery areas. Union does not include demand for customers with transportation service contracts as these customers are required to provide their own transportation services on TransCanada to Union to provide Union sufficient supply to meet their design day requirements.

The design day weather condition is based on the coldest observed degree day experienced in each of the six delivery areas. The design degree day for the Northern Delivery areas is as follows:

WDA	56.1	Thunder Bay
MDA	54.7	Fort Frances
SSMDA	48.2	Sault Ste Marie
NCDA	49.0	Muskoka / Gravenhurst
NDA	51.9	Sudbury
EDA	47.1	Kingston

Even though the winter of 2013/2014 was extremely cold, there were no new heating degree records set to adjust the ones used from the previous plan.

For Union North, the firm design day demand is a direct input into the Gas Supply Plan. Union is required to purchase transportation services to move the firm design day demand from either Parkway (in some cases from Dawn) or Empress to the delivery areas where the gas is consumed.

Union's Northern delivery areas are connected to TransCanada's Mainline and are physically separated from Union's Dawn storage and transmission pipeline assets. Therefore, Union requires upstream transportation services to connect each of the six Northern delivery areas to a supply source (currently at Empress). From Dawn, additional transportation services (primarily STS) are required to move gas from storage to the Northern delivery areas.

The Union North gas supply portfolio ensures there is sufficient, but not excess, firm transportation services available to meet the firm design day demand requirements in each delivery area. The full suite of assets is only used in each delivery area when a design or peak day occurs. Since Union is required to contract for transportation services to meet design day demand, there are days when the pipe is not fully utilized. Union currently uses a portfolio of firm services and assets including TransCanada firm transportation, TransCanada STS firm and other TransCanada services to meet its design day demand requirement.

Design day shortfalls in this Gas Supply Plan were identified in Union North (4,810 GJ for the winter of 2014/2015). The design day demands for the 2014/2015 Gas Supply Plan are based on a trend line using the daily firm customer consumption from the 2013/2014 winter and the associated daily degree day data and the forecast anticipated in the 2014/2015 demand forecast. The shortfall identified was largely due to lower forecast declines in demand (higher demand than the 2013/2014 Gas Supply Plan). Firm TransCanada long-haul transportation capacity from Empress to Union NDA has been acquired to address this design day shortfall.

Figure 8 illustrates what services and assets are relied on in the Gas Supply Plan to meet design day demand. The design day requirements in UnionNorth have increased from 474 TJ/d to 479 TJ/d.

**Figure 8**

<b>Winter 2014/2015 Northern Firm Design Day Demand in TJ/day</b>							
<b>Design Day - Heating Degree Day (HDD)</b>	<b>Delivery Area</b>						<b>Total</b>
	<b>MDA</b> 54.7	<b>WDA</b> 51.6	<b>SSMDA</b> 48.2	<b>NDA</b> 51.9	<b>NCDA</b> 49.0	<b>EDA</b> 47.1	
<b>Design Day Demand by Delivery Area</b>	<b>6</b>	<b>99</b>	<b>121</b>	<b>290</b>	<b>40</b>	<b>245</b>	<b>800</b>
Composed of:							
T-Service Firm Contract Demand	-	18	83	128	3	89	321
Union Responsible:							
Bundled Firm General Service Demand	6	81	37	150	37	155	466
T-Service Storage Redelivery Demand	-	-	-	13	-	-	13
Firm Demand - Union Responsible	6	81	37	162	37	155	479
<b>Capacity &amp; Supply to meet Firm Demand - Union Responsible</b>							
<b>Upstream Transportation - Capacity</b>							
TCPL Long Haul from Empress	5	37	8	63	9	59	180
<b>Supply - Upstream Transportation</b>							
Union	4	30	5	52	6	42	139
Direct Purchase	1	7	3	11	3	17	41
	5	37	8	63	9	59	180
<b>Redelivery from Storage</b>							
TCPL STS Withdrawals - contracted	-	31	35	48	14	69	197
TCPL STS Withdrawals - pooled in/(out)	-	-	(6)	(2)	15	(7)	-
TCPL STS Withdrawals - flowed	-	31	29	46	28	62	197
TCPL S/H from Parkway	-	-	-	-	-	35	35
	-	-	-	-	-	35	35
<b>Supply from Upstream Transport &amp; Storage</b>	<b>5</b>	<b>68</b>	<b>37</b>	<b>109</b>	<b>37</b>	<b>155</b>	<b>412</b>
<b>Firm Demand - Union Responsible</b>	<b>6</b>	<b>81</b>	<b>37</b>	<b>162</b>	<b>37</b>	<b>155</b>	<b>479</b>
<b>Supply from Upstream Transport &amp; Storage</b>	<b>5</b>	<b>68</b>	<b>37</b>	<b>109</b>	<b>37</b>	<b>155</b>	<b>412</b>
<b>Excess/(shortfall) by Delivery Area</b>	<b>(1)</b>	<b>(13)</b>		<b>(53)</b>			<b>(67)</b>
<b>Excess/(shortfall) by delivery area</b>	<b>(1)</b>	<b>(13)</b>		<b>(53)</b>			<b>(67)</b>
<b>Supply from Other Sources</b>							
<b>Diversions - from Union South transport portfolio</b>							
TCPL Empress - Union CDA	1	13	-	53	-	-	67
<b>Excess/(shortfall) by Delivery Area</b>							

Gas supply flows on the TransCanada long-haul firm transportation to meet Union North customers' seasonal and annual average weather normalized demand requirements. As in Union South, the target is to fill Union North in-franchise storage at November 1 and provide sufficient inventory at February 28 to meet the design day withdrawal requirement.

## 5.2 Demand forecast

The Gas Supply Plan for 2014/2015 is based upon the 2015 weather normalized demand forecast for general service customers and contract rate classes as prepared by Union's demand forecasting team. Total bundled customer forecast volumes, including general service unbundled customers, have increased by approximately 13.5 PJ or 5.5% in Union's 2014/2015 Gas Supply Plan from what was reflected in the 2013/2014 Gas Supply Plan. Union's sales service demands have increased by 13.9 PJ (Figure 9, lines 1, 6, 10, and 14).

The general service forecast has increased by 5.5% in Union South and 3.9% in Union North for a total increase of 10.0 PJ. This is primarily due to:

- Price elasticity of demand (residential and commercial);
- Commercial customer building operation / energy management; and,
- Commercial building characteristics – new and renovations.

The contract market has increased by 9.3% in Union South and decreased by 9.1% in Union North for a total increase of 3.6 PJ primarily due to the global economic forces and production activity at a number of industrial establishments. A comparison of the demand forecast included in the 2014/2015 Gas Supply Plan relative to the 2013/2014 Gas Supply Plan is provided in Figure 9.

**Figure 9**

Union Bundled Customer Forecast Demand					
Line No.	Particulars (TJ)	2013/14 Gas Supply Plan	2014/15 Gas Supply Plan	Variance	% change
		(a)	(b)	(c) = (b-a)	(d) = (c/a)
<b><u>UNION SOUTH</u></b>					
1	General Service - Sales Service	112,137	122,984	10,847	
2	General Service - BT	10,485	10,223	(262)	
3	General Service - unbundled	3,391	2,586	(805)	
4	General Service - ABC	22,959	21,339	(1,620)	
5	Sub-total	148,972	157,132	8,160	5.5%
6	Contract - Sales Service	2,359	3,554	1,196	
7	Contract - BT & ABC	42,354	45,328	2,974	
8	Subtotal	44,712	48,882	4,170	9.3%
9	<b>Total Union South</b>	<b>193,684</b>	<b>206,014</b>	<b>12,330</b>	<b>6.4%</b>
<b><u>UNION NORTH</u></b>					
10	General Service - Sales Service	34,664	37,340	2,676	
11	General Service - BT	3,876	3,982	106	
12	General Service - ABC	7,987	7,002	(985)	
13	Sub-total	46,527	48,323	1,796	3.9%
14	Contract - Sales Service	2,151	1,344	(807)	
15	Contract - BT	3,662	3,939	277	
16	Subtotal	5,813	5,283	(530)	-9.1%
17	<b>Total Union North</b>	<b>52,340</b>	<b>53,606</b>	<b>1,266</b>	<b>2.4%</b>
18	<b>Total Union Forecast Demand</b>	<b>246,024</b>	<b>259,620</b>	<b>13,596</b>	<b>5.5%</b>

As noted above on lines 1 and 10, sales service demands for the general service market have increased by 10.8 PJ in Union South and 2.7 PJ in Union North driven, in part, by estimated customer attachments in 2015 of 12,989 and 6,103 in Union South and Union North, respectively, as all growth in the general service forecast is assumed to be sales service. In addition, in Union South, approximately 20,000 bundled DP customers returned to sales service supply relative to what was included in the 2013/2014 Gas Supply Plan. A comparison of the number of sales service and DP customers in the 2014/2015 Gas Supply Plan relative to the 2013/2014 Gas Supply Plan is provided in Figure 10.

**Figure 10**

**Number of Customers by Service classification - Union South**

	<b>2013/14</b>	<b>2014/15</b>	
	<b>Forecast</b>	<b>Forecast</b>	<b>Variance</b>
Sales Service	928,199	962,746	34,547
Bundled DP	142,241	120,527	(21,714)
Total	<b>1,070,440</b>	<b>1,083,273</b>	<b>(12,833)</b>

For the sales service forecast (the group that Union purchases supply for), the increase in demand due to return to sales service impacts the total supply that Union must purchase for both Union North and Union South. For Union North, Union plans for upstream pipeline transportation capacity for sales service and bundled DP customers so there is no impact to Union's contracted capacity in the north as a result of return to sales service.

For Union South, Union requires additional supply and transportation capacity to meet increased demand as a result of return to sales service supply. The incremental supply requirement is reflected in Union's 2014/2015 Gas Supply Plan.

The gas supply/demand balance for sales service customers for the 2014/2015 Gas Supply Plan is provided at Appendix B.

### **5.3 Transportation Portfolio**

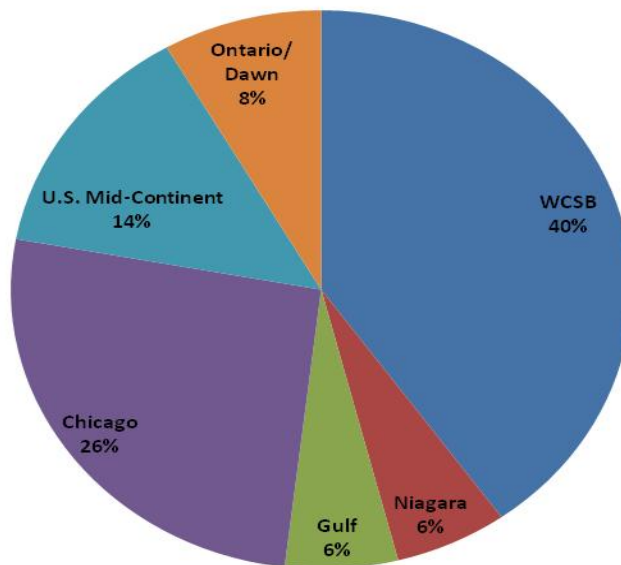
Union holds a combination of firm transportation contracts, Dawn sourced supply and storage capacity to meet the full forecasted annual demand. Firm transportation arrangements provide direct and secure access to a diverse group of supply basins and hubs in North America.

#### **i) Union South**

For Union South, Union holds firm transportation contracts and sources supply at Dawn to meet average annual demand requirements. Union utilizes capacity on many upstream pipelines to access several supply basins or market hubs. These pipelines provide access to supplies in Western Canada, Gulf of Mexico, Chicago, the U.S. mid-continent and Marcellus. The Gas Supply Plan also includes Dawn purchases as part of the Union South supply portfolio. Figure 11 demonstrates the sources of supply underpinned by Union's transportation portfolio for Union South sales service customers. (A complete list of the upstream transportation contracts is included as Appendix D)

**Figure 11**

**South System Supply Portfolio**  
for the period November 2014 to October 2015



**ii) Union North**

In Union North, Union's plan utilizes various services and transportation capacity to meet sales service and bundled DP customer annual and design day demands. The transportation capacity necessary to meet peak day demands on a firm basis exceeds that required to meet the annual demand requirements.

A detailed listing of the contracts in place to serve Union North annual, seasonal and design day demands for the 2014/2015 gas year are provided in Appendix C.

The Gas Supply Plan reflects the effective management of TransCanada capacity by:

- Using TransCanada STS injection. STS injection is a service that allows Union to move excess volumes from the North to Parkway and ultimately to Dawn storage in the summer;
- Using TransCanada STS withdrawals in the winter months to serve weather-driven demands. Gas is withdrawn from Dawn storage throughout the winter and is transported back to Union North via STS withdrawals without the need for contracting additional TransCanada FT capacity to that delivery area; and,
- Using contractual STS pooling rights to group all of Union's STS rights serving the various Union North delivery areas. This provides Union with the flexibility to serve the individual delivery areas in Union North with gas service in excess of that delivery area's specific STS rights.

In addition, Union completes the Gas Supply Plan on an integrated basis in order to manage costs for all ratepayers. For example, today, Union uses the Union South TransCanada Empress to Union CDA contract to serve two purposes. In addition to meeting average day (annual) requirements for Union South as described above, the Empress to Union CDA contract is also used to meet Union North design day requirements through upstream



diversions that are interruptible in nature but have historically been very reliable. Given the significant changes to TransCanada's system operations driven by changing market dynamics, TransCanada was unable to accommodate certain interruptible upstream diversions that have previously and consistently been accepted. Therefore, Union is working to replace its reliance of upstream diversions to meet Union North requirements. This is discussed in more detail later in this memorandum at Section 6.2.

#### 5.4 UDC in the Gas Supply Plan

In Union North, the upstream transportation capacity (long-haul, short-haul and STS) is first sized to meet the winter design day demand requirement. The long-haul capacity is also used to deliver, on each day, the average annual volume to each delivery area. The amount of supply transported on the upstream long-haul capacity needed to meet average annual demand requirements is less than the capacity to meet peak day requirements, and therefore, a portion of Union's contract capacity is planned to be unutilized during the year. The difference between total contracted capacity and total demand for both Union North sales service and bundled DP customers results in unutilized capacity or UDC. The total forecast UDC is 12.1 PJ in the 2014/2015 Gas Supply Plan. If weather is colder than normal and annual consumption is greater, and if it is economical to do so, Union will use this capacity to meet incremental supply requirements in either Union North or Union South subject to TransCanada's authorization of downstream diversions.

Figure 12 shows the total contracted capacity sourcing supply at Empress relative to the annual demand and the resulting UDC in the 2014/2015 Gas Supply Plan.

**Figure 12**

**North Transportation Capacity vs Demand**  
2014/15 Gas Supply Plan

	<b>PJ</b>
Total Contracted Capacity (174.9)	63.9
Incremental NDA capacity (4.8 TJ/day)	1.8
Withdrawal from Storage	0.3
less:	
Total Annual System Sales demand	38.9
Total Annual Bundled DP demand	14.9
<b>Total UDC</b>	<b>12.1</b>

In Union South, capacity on multiple different upstream pipelines is utilized to provide service to meet sales service average and seasonal demands. The Gas Supply Plan reflects the effective management of these capacities as there is no unutilized transportation capacity forecast for the 2014/2015 gas year as the Plan forecasts a 100% load factor on all the Union South upstream transportation.

## 5.5 Changes in Upstream Transportation Portfolio

The Gas Supply Plan assumes that all capacity currently contracted with renewal rights will continue to be available in the future. The Plan also excludes the following contracts that have expired:

- Panhandle Eastern Pipeline – 10,551 GJ/d (one-year term)
- GLGT / Michcon / TransCanada to SSMDA – 6,143 GJ/d
- Union CDA market-based contracts – 53,000 GJ/d (five-month term)

All of these contract expiries were replaced with a similar transportation service. The 2014/2015 Gas Supply Plan identified the following requirements:

- Approximately 75,000 GJ/d of supply is to balance Union South sales service supply and demands. To meet the Union South sales service supply requirements, Union contracted for the following capacity:

Capacity	GJ/d
Panhandle Eastern Pipeline	10,551
Michcon Pipeline	10,551
Vector Pipeline	26,376
Dawn	27,522
<b>Total</b>	<b>75,000</b>

This represents an incremental 35,000 GJ/d of supply (13 PJ annually) relative to the 2013/2014 gas supply plan. This incremental supply is required due to DP customers returning to sales service and increased demand as discussed in Section 5.2. Union includes Dawn supplies in the gas supply portfolio to provide additional diversity and flexibility. Dawn delivered supplies provide Union access to a robust and liquid Dawn market hub.

- To meet increased design day requirements in Union North, 4,800 GJ/d of firm TransCanada long-haul transportation capacity from Empress to Union NDA has been acquired. In addition, Union has contracted for TransCanada capacity from Empress to SSMDA replacing the GLGT/Michcon/ TransCanada capacity.
- The total transportation requirement from Parkway to Union CDA identified in the Gas Supply Plan is 84,000 GJ/d, however, the Gas Supply Plan assumes that Union would renew an existing TransCanada FT contract for 16,000 GJ/d (contract has automatic renewal rights), leaving an outstanding requirement of 68,000 GJ/d. Union has taken a permanent assignment of 8,000 GJ/d of Dawn to Union CDA transportation capacity for the November 2014 to October 2016 time period. The remaining 60,000 GJ/d continues to be met with a firm exchange from Parkway to Union CDA for the winter period. The total requirement is a slight increase from the level of 69,000 GJ/d in last year's plan reflecting short-term operational conditions. The need for Parkway to Union CDA firm transportation capacity was identified in early 2011 when TransCanada indicated that Union would need to contract and pay specifically to transport volumes from Parkway to Union CDA in order to meet consumption requirements. Historically, TransCanada had not charged for this service and Union had not had to contract for it. Union described this new requirement in EB-2013-0109, Exhibit J2.6.

A complete listing of the transportation capacity contracted for Union North and Union South for the 2014/2015 gas year is provided at Appendix C and D.

In addition to the portfolio changes noted above, Union has reflected the Parkway Delivery Obligation proposal as filed and approved in EB-2013-0365 and the Vertical Slice changes as contemplated in EB-2014-0145 in the 2014/2015 Gas Supply Plan.

## **5.6 Cost of Gas**

The Gas Supply Plan for the gas year 2014/2015 was finalized in the third quarter of 2014. The transportation tolls and gas prices utilized in the development of the Gas Supply Plan are consistent with those used to set the April 2014 Quarterly Rate Adjustment Mechanism (“QRAM”) commodity price. Union then established specific prices for each supply location taking into account the various basis differentials and the foreign exchange rate.

As part of Union’s Incentive Rate Mechanism (“IRM”) Settlement Agreement (EB-2013-0202), Union indicated in Section 4.7.1, that the cost of gas supply, upstream transportation and gas supply balancing would continue to be passed through to customers through the Quarterly Rate Adjustment Mechanism (“QRAM”). Union reflects updated transportation tolls and forecast gas commodity in rates through the QRAM process. Variances in actual gas supply costs and transportation tolls relative to forecast gas supply costs and transportation tolls reflected in rates are captured in Union’s gas supply deferral accounts. Union includes the prospective disposition of gas supply related deferral accounts in the QRAM process.

## **5.7 Bundled DP Customer Assumptions**

The Gas Supply Plan includes all bundled DP demand and contracted Daily Contract Quantities (“DCQ”), and assumes that the number of bundled DP customers remains constant as of January 1, 2014. Union is unable to predict customer migration between sales service and bundled DP. Therefore, for the term of the Gas Supply Plan, customers are assumed to remain with the service they had received effective January 1, 2014.

On an ongoing basis throughout the year, Union continues to monitor the migration between bundled DP and sales service supply. As customers return to sales service supply, Union proactively manages the expected supply requirements by filling any pipe that is returned to Union when the customer returns to sales service supply. In addition, each month, Union purchases incremental supply for demand that is returned without underlying pipe based on forecast activity for the balance of the gas year.

Conversely, for customers that migrate to bundled DP, Union facilitates this movement by displacing planned commodity purchases and allocating upstream transportation capacity, as per the vertical slice allocation methodology approved in the RP-1999-0017 proceeding. As per EB-2014-0145, the vertical slice program will be suspended as of November 1, 2014. As discussed earlier in this memorandum, on a net basis, Union has experienced greater return to sales service supply.

## **5.8 Storage**

Union owns 166 PJ of storage. Consistent with the NGEIR decision, the allotment of storage space to in-franchise customers is 100 PJ. For the 2014/2015 Gas Supply Plan, the in-franchise space requirement is 93.6 PJ. This leaves 6.4 PJ of excess in-franchise space which is

available for S&T short-term sales. This is an increase of 2.2 PJ in the space required for in-franchise needs when compared to 91.4 PJ in the 2013/2014 Gas Supply Plan. The increase in in-franchise storage is due primarily to increased demand for Union's bundled customers.

The in-franchise space of 93.6 PJ is provided to in-franchise customers to meet the storage requirements of sales service, bundled DP, unbundled and T-service customers. The amount available to in-franchise customers is based on the storage allocation methodologies approved by the Board as part of the Natural Gas Storage Allocation Policies Decision (EB-2007-0724/0725).

The storage space available to sales service and bundled DP customers in Union South and Union North is determined using the Board-approved aggregate excess methodology. This method is defined as the calculation of the difference between total winter demand (November 1 through March 31) and the average annual demand for a 151 day period. This method determines the allocation of storage space based on the following formula:

$$\text{Aggregate Excess} = \text{Total Winter Consumption} - [(151/365) * (\text{Total Annual Consumption})]$$

## **5.9 Conclusion**

Union continues to establish a Gas Supply Plan that is right sized to meet firm sales service and bundled customer demands with a diverse, flexible and cost effective portfolio of firm services and assets. Union's integrated supply planning process incorporates demand related items such as customer growth, normalized weather, design day requirements, customer consumption patterns and economic outlooks. Union plans and contracts for services and assets to provide an efficient combination of upstream transportation, supply purchases, and storage assets to serve sales service and bundled DP customers' annual, seasonal and design day gas delivery requirements. Union adheres to the gas supply guiding principles to ensure the assets procured on behalf of customers are robust, secure, diverse and reliable to meet firm customer demands.

As supply and transportation market options change, so does Union's supply mix and how it is transported to Ontario. Union continues to proactively evaluate new supply and transportation options for Union North and Union South customers. Unchanged, however, is Union's application of the gas supply planning principles and the requirement to ensure secure, reliable supplies to serve its customers at prudently incurred costs.

## **6 FUTURE TRENDS THAT MAY IMPACT THE GAS SUPPLY PLAN**

Union monitors the North American natural gas industry and identifies how trends may impact Union's future gas supply portfolio. The market context which Union operates is described above and includes the emergence of shale gas, the reduction in available WCSB supplies flowing eastward, and the trend to move from long-haul transportation to short-haul. In addition to these trends, Union also considers recent industry experience particularly that of the extraordinary winter of 2013/2014.

## **6.1 Natural Gas Market Review - EB-2014-0289**

Union provided its view of the extremely cold and unprecedented weather conditions experienced during the 2013/2014 winter causing record demand and record draws on storage over wide areas of North America. Similar views were shared by others as it related to the severity of the weather and the drivers for the increased demand and resulting prices. To the extent that the winter of 2013/2014 was one of the coldest on record, the winter of 2011/2012 was one of the warmest. The ongoing gas supply plan has to be able to meet annual, seasonal and peak day needs and be flexible enough to be able to manage variances in demand caused by either colder or warmer than normal weather.

There were suggestions during the Stakeholder Conference that a more mechanistic approach could be employed across each utility, including increased storage, triggers, what if scenarios and algorithms. Union relies on internal control points to manage the level of storage required to meet the needs of bundled customers as well as contractual balancing checkpoints for Union South bundled direct purchase customers to ensure their storage levels also meet the control point requirements. These control points and checkpoints ensure the overall system is physically protected throughout the year. It is an engineering, fact based process that does not need to change.

Every utility has a different mix of storage and pipeline assets. Trying to employ a common formulaic algorithm or mechanistic approach is unreasonable and unnecessary. The current process and procedures have worked very well in both a very warm and a very cold winter. The plan is a guideline and the utilities always have to manage the variances to the plan. In a colder than normal winter, Union will always buy more supply than was in the original plan to supplement the increased demand. The volume and timing will depend on the variance to the control points and the market operating conditions at the time.

The utilities' primary function is to ensure the physical reliability of their systems and it is important for utilities to be able to exercise the judgment and knowledge that they have in managing their portfolio.

## **6.2 Access to Dawn for Union North**

The Settlement Agreement between TransCanada and Enbridge, Gaz Metro and Union results in access to Dawn for shippers downstream of Union's system. For Union, this means customers in the NDA and the EDA. In order to affect this access, Union entered into the 2015 and 2016 open seasons conducted by TransCanada to provide service from Parkway to the EDA and Parkway to the NDA. Union's bids in the open seasons were accepted. Capacity was also reserved in Union's own Dawn-Parkway open seasons for 2015 and 2016 on behalf of sales service and bundled DP customers.

The capacity required in 2015 to serve these contracts includes expansion of Union's Dawn to Parkway system (including the Parkway Projects), the Enbridge GTA project, and TransCanada's King's North project. Union's Parkway Projects and the Enbridge GTA project were approved by the Board in January, 2014. Additional Dawn to Parkway capacity will be required for the 2016 volumes of Union and other market participants. In addition, Union expects that additional facilities will be required on the TransCanada system in 2016. In tandem with the acquisition of short-haul contract capacity from Dawn, long-haul contract capacity will be de-contracted; said another way, Union is transitioning existing long-haul

contracts and associated services to short-haul contracts. Quantities being transitioned for the sales service and bundled DP markets for the Union EDA and Union NDA are as follows:

**Figure 14**

TransCanada Contract Transitions

	TJ/d	
	2015	2016
Union EDA	100	0
Union NDA	10	100

For 2015, the Union EDA transition includes the reduction of long-haul Empress to Union EDA transportation of approximately 58 TJ/d and a reduction of STS withdrawals to the EDA of approximately 42 TJ/d. The total reduction of 100 TJ/d is replaced by 75 TJ/d of short-haul Parkway to Union EDA transportation and 25 TJ/d of TransCanada's new Enhanced Market Balancing ("EMB") Service. The EMB service, which was introduced as part of the Settlement Agreement, offers Union a short-haul service with extra nomination windows similar to the ones included as part of the STS service. It provides flexibility to manage market fluctuations by including eight nomination windows and is not linked to TransCanada-long-haul transportation. The Union NDA transition is a reduction of long-haul Empress to Union NDA transportation of 10 TJ/d, replaced by 10 TJ/d of Parkway to Union NDA transportation.

For 2016, the only transition of long-haul contracts to short-haul contracts for the sales service/bundled direct purchase portfolio is in the Union NDA. A further 33 TJ/d of Empress to Union NDA transportation is being replaced by 33 TJ/d of Parkway to Union NDA transportation.

Also in 2016, Union submitted another bid for 67 TJ/d of Parkway to Union NDA transportation. This is to eliminate Union's reliance on upstream diversions on design day to serve Union North, and is described in the next section.

Union also submitted bids for 2016 service on behalf of North T-Service customers electing for Union's North T-Service to Dawn service. These bids were for a total of 29 TJ/d of Dawn service to Union NDA, NCDA, and EDA.

A summary of Union's 2015 and 2016 TransCanada bids can be found in Appendix E. Union will be filing evidence with the Board in the near future requesting approval of rates resulting from these changes in the gas supply portfolio.

### 6.3 The Impacts of a Dawn Based Reference Price

As Union and others continue to respond to changing North American natural gas market dynamics the source of the majority of gas supply serving Ontario is changing. As recent as 1999, Union was sourcing over 80% of its gas supply from the WCSB. By 2018 this number is expected to be below 20%. In its place, new supplies purchased at Dawn or upstream of Dawn will find their way to customers, providing benefits to all of Ontario.

As Union's portfolio changes and more gas is sourced from Dawn rather than Alberta, the Alberta Border Reference Price currently used for setting Union North commodity may no longer be an appropriate market price indicator for customers in Union North delivery areas.

For these areas, Union will look at making a Dawn price the reference price. The Alberta border reference price may still be an appropriate market price indicator for customers in some northern delivery areas where gas is still expected to be sourced predominantly from Empress over the near future. In addition, with less gas being sourced from Alberta for Union South in the future, the Dawn reference price may also be a more appropriate market price indicator for Union South customers.

In response to the Board's request for comments in EB-2014-0199, several intervenors, including IGUA, Energy Probe, City of Kitchener, and FRPO, suggested that reviewing the implications of adopting a Dawn reference price for QRAM purposes, would be timely. This was also reiterated by intervenors in the Natural Gas Market Review. Union agrees.

Union is evaluating a change to the reference price to be Dawn-based for those customers where it is most appropriate and Empress-based for the remaining customers. Union will be filing evidence with the Board in the near future requesting approval of changes in the reference price as appropriate.

#### **6.4 Changing Reliance on Interruptible Diversions / Discretionary Services**

Given the significant changes to TransCanada's system operations and experience from the winter 2013/2014, Union found TransCanada unable to accommodate certain interruptible upstream diversions they have previously and consistently accepted.

Historically, the use of interruptible upstream diversions on TransCanada, although a discretionary service, has been reliable. Since the firm capacity had been reserved for the full path from Empress to Union CDA, gas flowing only a portion of this distance on the same contracted path was highly reliable. Union has planned for, and utilized, these diversions in its Union North portfolio for many years without issue. However, in 2013, TransCanada long-haul transportation contracting and system operations changed such that upstream diversions were no longer as reliable. Union experienced interruptions of these upstream diversions in December 2013. Union was able to work with TransCanada on a temporary solution for the 2014/2015 winter, but this solution is at the sole discretion of TransCanada and not guaranteed to be available on an annual basis.

Going forward, the interruption risk of this discretionary service is too great for Union North customers. Union cannot plan on upstream diversions as a reliable option for meeting design day requirements in Union North. Therefore, in order to ensure a reliable, sustainable, and secure source of supply to Union North markets on design day, Union needs to purchase incremental firm, renewable transportation capacity to Union North. This includes the elimination of interruptible upstream diversions by securing November 1, 2015 capacity in TransCanada existing capacity open seasons for Empress to Union MDA (1 TJ/d) and Union WDA (11.5 TJ/d) capacity. This increase in the Empress to MDA and WDA capacity will be offset by an equal reduction in Empress to NDA capacity. In addition, Union has committed to 67 TJ/d of firm, renewable TransCanada Parkway Belt to Union NDA capacity to meet this requirement, effective November 1, 2016 as described above and reflected in Appendix E.

#### **6.5 Changing TransCanada Renewal Notice**

In summer 2013, TransCanada applied to the NEB for a number of changes to their tariff (RH-001-2013). Among the changes contemplated were amendments to the notice period for

renewals. In the Decision, the NEB increased the current six month notice period to a two-year notice period. A transition plan was also implemented for shippers with contracts expiring within the two-year window. Per the transition plan, Union elected renewals for 2015 expiries at the end of January, 2014; October, 2016 contract expiries were elected in October, 2014. Contracts will roll forward on a one-year basis, while maintaining the two-year notice requirement. This is consistent with Union's own contracting practice.

## **6.6 Dawn to Parkway Expansion**

As described previously, eastern markets, including Union, are seeking to source more supplies from Dawn. This growth at Dawn will need to be supported by increased capacity on the Dawn to Parkway System, as well as east of Parkway (as described above). In order to identify and serve this requirement, Union held an open season in May, 2012 to solicit customer interest in this path commencing November, 2015. This expansion is part of the Parkway Projects that were approved by the Board in January, 2014 as part of EB-2012-0433 and EB-2013-0074.

Union held a second open season in December 2013/January 2014 for incremental interest on the Dawn to Parkway System commencing November, 2016. Union's application for these facilities was filed with the Board on September 30, 2014 under docket EB-2014-0261.

On behalf of the Union sales service, bundled DP customers and T-service, Union has reserved incremental Dawn to Parkway capacity in both the 2015 and 2016 open seasons; the amount of capacity reserved was approximately 70 TJ/d and 169 TJ/d respectively. These transportation capacities, in combination with the incremental TransCanada capacity from Parkway to Union EDA, Union NDA, and Union NCDA will allow Union's northern customers to shift supplies previously sourced from the WCSB to Dawn. Union has executed PA's with TransCanada for the 2015 and 2016 TransCanada Parkway to delivery area capacity requirements.

## **6.7 Burlington-Oakville Project**

On the TransCanada system, Union CDA is a TransCanada delivery area that is located at the eastern end of Union's Dawn-Parkway System. It is located entirely within the Union South operating area and is comprised of four city gate stations: Bronte, Burlington, Hamilton Gate, and Nanticoke. TransCanada supplies a portion of this area while the Union transmission and distribution system supplies the remainder. Today, Burlington, Oakville, and surrounding areas are served from Union's Dawn-Parkway system, deliveries from TransCanada's Domestic line, and third-party contracts Union has secured to the Union CDA within the upstream transportation portfolio.

The method of serving the market today is not sustainable. The availability of Union CDA capacity (Dawn or Parkway receipts) is limited, as are market-based options. In addition, market-based contracts do not offer renewal rights, which compromises the reliability and security of supply and the existing capacity into the Union CDA will not be sufficient to serve market growth in the Milton, Burlington, and Oakville areas.

Union proposes to meet the growth and address the security of supply needs of the Burlington Oakville System by constructing new pipeline facilities from the Dawn Parkway System to the existing NPS 20 Burlington to Oakville Pipeline at the Bronte Gate Station for November 1, 2016 in-service. The estimated cost of capital is approximately \$119.50 million. As a result of this project, Union will no longer require certain TransCanada and market-based contracts it



currently requires to serve the Union CDA. The facilities application for Burlington Oakville Pipeline Project was filed with the Board on December 12, 2014 under docket EB-2014-0182.

The TransCanada Settlement Agreement also provides clarity on how the Union CDA gate stations will be served based on the capabilities of the TransCanada system. TransCanada also recognizes the Burlington Oakville project and the resulting impact on TransCanada delivery points. Coincident with the implementation of the Burlington Oakville project, Union recognized the need to contract and pay for TransCanada services to transport volumes from Kirkwall to the amended Union CDA. As such, Union will contract with TransCanada to provide service from Kirkwall to Hamilton and Nanticoke (collectively referred to as the Amended Union CDA in the Settlement Agreement) Gate Stations. Union was awarded this capacity (135 TJ/d) in TransCanada's 2016 open season. This capacity is reflected in Appendix E.

## **6.8 Nexus Pipeline Project**

The North American natural gas market continues to undergo significant changes. These changes have, and will continue to have, far-reaching implications on the Ontario natural gas market. In recent years, the Ontario natural gas market has experienced decreased reliance on Western Canadian Sedimentary Basin ("WCSB") supplies (including near term changes to reduce reliance on Empress-based supply and long-haul transportation in favour of Dawn-based supply and short-haul transportation), the emergence of new alternative supply sources and, changes in the physical flow of gas across and around the province of Ontario. These continuing changes represent both a challenge and an opportunity for the Ontario natural gas market.

The Appalachian Basin (Marcellus and Utica supplies) has experienced the most prolific natural gas production growth in North America. This abundant supply is located within the Great Lakes region in close proximity to Ontario and other eastern North American consuming markets. The U.S. Energy Information Administration in its 2014 Annual Energy Outlook forecasted that shale gas production will represent 50% of total U.S. natural gas production by 2035.

Based on the current ICF forecast, Marcellus and Utica natural gas production will exceed demand projected for the New England and Mid-Atlantic markets as early as 2016. This is the primary driver for Marcellus and Utica natural gas producers continuing to aggressively seek access to other North American markets, including Dawn. With competition for Marcellus and Utica supply from the U.S. Northeast, Gulf Coast, the U.S. Midwest and the U.S. Southeast, timing will be critical for the Dawn Hub and Ontario consuming markets to access the prolific Appalachian shale plays. The opportunity to achieve this connectivity is presenting itself now as Marcellus and Utica producers are actively looking for new long term markets in which to sell their production.

A number of projects have been proposed to bring Marcellus and Utica natural gas to Dawn through Michigan, including NEXUS, ETP Rover and ANR East, and through Niagara, including expansion of the Tennessee Gas Pipeline system in upstate New York. Connecting new supply to Dawn of the magnitude required to support major Greenfield pipeline projects, such as NEXUS and ETP Rover, will require eastern LDCs to contract for capacity as an anchor shipper. Union has committed to 158 TJ/d of transportation capacity on NEXUS as an anchor shipper to Dawn. Without the commitment of eastern LDCs, projects of this magnitude would have to rely heavily on producers to contract for long term capacity or, in some cases,

they may not get built. In the case of NEXUS, eastern LDC commitment provides some balance between market pull and supply push drivers, providing a greater chance of subscribing the necessary capacity to support the project and bring benefits to the market at Dawn. Union will be filing for pre-approval of the NEXUS contracts in the second quarter, 2015.

Ultimately, the combination of new take away capacity and new pipeline connectivity to Dawn will increase the depth and liquidity of the Dawn Hub, benefiting all Ontario natural gas consumers through diversity of supply, increased security of supply and access to more cost competitive supply.

## **7 APPENDICES**

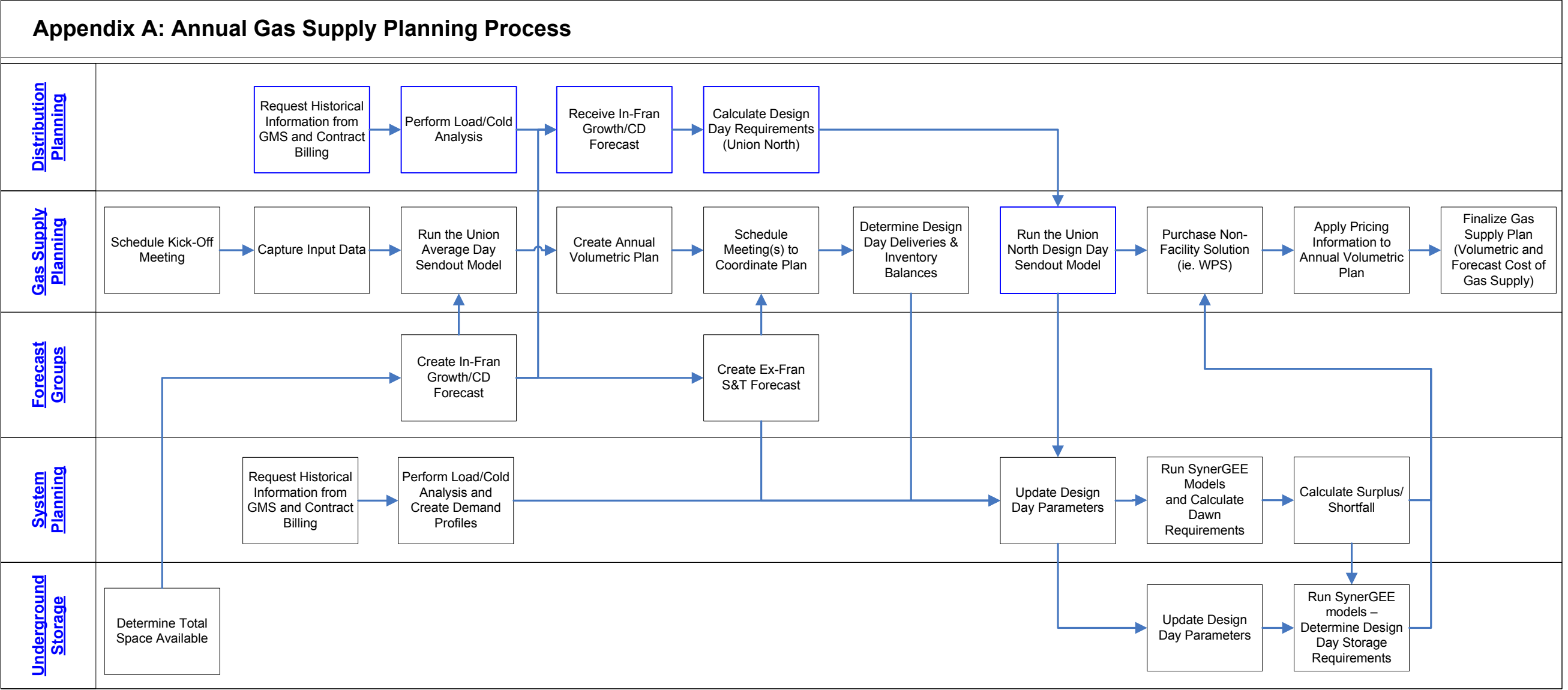
Appendix A - Gas Supply Planning Process

Appendix B - Sales Service Gas Supply Demand Balance

Appendix C - Union North Detailed List of Transportation Contracts

Appendix D - Union South Detailed List of Transportation Contracts

Appendix E - Summary of Union's 2015 and 2016 TransCanada New Capacity Open Season Bids



**2014/15 Gas Supply Plan Memorandum**  
**Appendix B**  
**Union Gas Limited - System Sales Supply Demand Balance - November 2014 to October 2015**

Particulars (TJ)	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Total
<b>South</b>													
Demands													
System Sales	12,720	19,562	22,329	19,607	17,004	10,025	5,119	3,009	3,146	3,035	3,735	7,248	126,538
South Co. Use, UFG, Comp. Fuel	810	957	1,295	1,505	954	578	352	380	482	526	723	654	9,217
Less: Customer Supplied Fuel	(637)	(695)	(930)	(755)	(599)	(423)	(279)	(271)	(333)	(267)	(239)	(438)	(5,866)
Total Demands	12,892	19,825	22,694	20,358	17,359	10,180	5,192	3,118	3,295	3,294	4,218	7,464	129,890
Supplies													
TCPL Empress-Union CDA	1,562	1,614	1,614	1,458	1,614	1,562	1,614	1,562	1,614	1,614	1,562	1,614	19,007
Alliance/Vector	2,211	2,285	2,285	2,064	2,285	2,211	2,285	2,211	2,285	2,285	2,211	2,285	26,899
Vector	2,564	2,649	2,649	2,393	2,649	2,564	2,649	2,564	2,649	2,649	2,564	2,649	31,193
TCPL Niagara-Kirkwall	633	654	654	591	654	633	654	633	654	654	633	654	7,702
Trunkline	633	654	654	591	654	633	654	633	654	654	633	654	7,702
Panhandle	855	883	883	798	883	855	883	855	883	883	855	883	10,398
Local Production	52	54	54	49	54	52	54	52	54	54	52	54	635
Dawn	2,310	2,387	2,387	2,109	2,338	2,250	2,325	2,232	2,325	2,325	2,250	2,325	27,563
Total Supplies	10,820	11,180	11,180	10,051	11,132	10,760	11,118	10,742	11,118	11,118	10,760	11,118	131,100
Change in Inventory - wd/(inj)	2,072	8,644	11,513	10,307	6,228	(579)	(5,926)	(7,625)	(7,823)	(7,825)	(6,541)	(3,655)	(1,210)
Total Supplies + Inventory Change	12,892	19,825	22,694	20,358	17,359	10,180	5,192	3,118	3,295	3,294	4,218	7,464	129,890
<b>North</b>													
Demands													
System Sales													
Union NCDA	346	496	574	487	416	258	140	79	72	70	85	186	3,210
Union EDA	1,144	1,637	1,922	1,636	1,394	874	476	273	249	241	294	611	10,751
Union MDA	50	73	86	72	61	37	20	11	9	9	11	26	466
Union NDA	1,389	1,994	2,408	2,009	1,718	1,122	591	340	331	298	380	809	13,389
Union SSM DA	370	552	580	486	448	285	144	79	78	68	116	249	3,456
Union WDA	775	1,150	1,381	1,151	953	582	310	173	159	150	211	418	7,412
North Comp Fuel	9	2	7	5	3	14	32	30	31	31	30	31	225
	4,083	5,904	6,959	5,847	4,992	3,173	1,714	984	928	867	1,127	2,329	38,909
Supplies													
TCPL Empress-Union NCDA	176	181	-	-	-	175	181	175	181	181	175	181	1,605
TCPL Empress-Union EDA	1,263	1,305	579	1,176	-	896	1,301	1,259	1,301	1,298	1,259	814	12,452
TCPL Empress-Union MDA	53	81	97	81	66	37	15	4	2	2	5	23	466
TCPL Empress-Union NDA	1,715	1,621	1,621	1,464	-	1,559	1,611	1,559	1,611	1,611	1,559	1,611	17,542
TCPL Empress-Union SSM DA	147	150	-	136	-	145	117	22	-	-	71	150	937
TCPL Empress-Union WDA	903	933	933	843	66	684	343	165	139	129	199	464	5,801
Total Supplies	4,257	4,271	3,230	3,699	132	3,495	3,568	3,184	3,235	3,221	3,268	3,243	38,804
Change in Inventory - wd/(inj)	(174)	1,633	3,730	2,148	4,860	(323)	(1,854)	(2,200)	(2,306)	(2,354)	(2,141)	(913)	105
Total Supplies + Inventory Change	4,083	5,904	6,959	5,847	4,992	3,173	1,714	984	928	867	1,127	2,329	38,909
<b>Total Demands</b>													
South	12,892	19,825	22,694	20,358	17,359	10,180	5,192	3,118	3,295	3,294	4,218	7,464	129,890
North	4,083	5,904	6,959	5,847	4,992	3,173	1,714	984	928	867	1,127	2,329	38,909
	16,975	25,729	29,653	26,205	22,352	13,353	6,906	4,102	4,224	4,161	5,346	9,793	168,798
<b>Total Supplies</b>													
South	10,820	11,180	11,180	10,051	11,132	10,760	11,118	10,742	11,118	11,118	10,760	11,118	131,100
North	4,257	4,271	3,230	3,699	132	3,495	3,568	3,184	3,235	3,221	3,268	3,243	38,804
	15,077	15,452	14,410	13,750	11,264	14,255	14,686	13,926	14,353	14,340	14,028	14,361	169,903
<b>Change in Inventory - wd/(inj)</b>													
South	2,072	8,644	11,513	10,307	6,228	(579)	(5,926)	(7,625)	(7,823)	(7,825)	(6,541)	(3,655)	(1,210)
North	(174)	1,633	3,730	2,148	4,860	(323)	(1,854)	(2,200)	(2,306)	(2,354)	(2,141)	(913)	105
	1,898	10,277	15,243	12,455	11,088	(902)	(7,780)	(9,825)	(10,130)	(10,179)	(8,683)	(4,568)	(1,105)
<b>Total Supplies + Inventory Change</b>	16,975	25,729	29,653	26,205	22,352	13,353	6,906	4,102	4,224	4,161	5,346	9,793	168,798

**2014/15 Gas Supply Plan Memorandum**

**Appendix C**

UNION GAS LIMITED

Summary of Upstream Transportation Contracts - as at November 1, 2014

Northern and Eastern Operations Areas

Line No.	Upstream Pipeline	Primary Receipt Point	Primary Delivery Point	Contract Quantity	Contract Units	Contract Termination Date	Unitized Demand Charge (\$Cdn/GJ)	Commodity Charge (\$Cdn/GJ)	100% LF Toll (\$Cdn/GJ)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h=f+g)
<b>TransCanada Pipeline</b>									
1	Empress to Union NCDA FT	Empress	Union NCDA	10,756	GJ	31-Oct-2017	1.495		1.495
2	Empress to Union EDA FT	Empress	Union EDA	59,101	GJ	31-Oct-2017	1.650		1.650
3	Empress to Union NDA FT	Empress	Union NDA	76,015	GJ	31-Oct-2017	1.317		1.317
4	Empress to Union WDA FT	Empress	Union WDA	39,880	GJ	31-Oct-2017	0.856		0.856
5	Empress to Union SSMDA FT	Empress	Union SSMDA	8,843	GJ	31-Oct-2017	1.194		1.194
6	Empress to Union MDA FT	Empress	Union MDA	4,522	GJ	31-Oct-2017	0.598		0.598
7	Parkway to Union EDA FT	Parkway	Union EDA	35,000	GJ	31-Oct-2017	0.250		0.250
8	Parkway to Union CDA FT	Parkway	Union CDA	16,000	GJ	31-Oct-2017	0.101		0.101
9	Dawn to Union CDA FT	Dawn	Union CDA	8,000	GJ	31-Oct-2017	0.204		0.204
10	TCPL FT - Total			258,117	GJ				
<b>Other</b>									
11	Parkway to CDA - Exchange	Parkway	Union CDA	60,000	GJ	31-Mar-2015	0.960		0.960
12	Total - Other			60,000	GJ				
<b>TransCanada Storage Transportation Service Firm Withdrawal</b>									
13	NCDA	Parkway	Union NCDA	13,704	GJ	31-Oct-2017			
14	WDA	Parkway	Union WDA	31,420	GJ	31-Oct-2017			
15	SSMDA	Dawn	Union SSMDA	35,022	GJ	31-Oct-2017			
16	NDA	Parkway	Union NDA	48,375	GJ	31-Oct-2017			
17	EDA	Parkway	Union EDA	68,520	GJ	31-Oct-2017	0.250		0.250
18	TCPL Firm STS Withdrawal - Total			197,041	GJ				
<b>TransCanada Storage Transportation Service Firm Injection</b>									
19	NCDA	Union NCDA	Parkway	0	GJ	31-Oct-2017			0.000
20	WDA	Union WDA	Parkway	3,150	GJ	31-Oct-2017	0.840		0.840
21	SSMDA	Union SSMDA	Parkway	0	GJ	31-Oct-2017			
22	EDA	Union EDA	Parkway	47,571	GJ	31-Oct-2017			
23	NDA	Union NDA	Parkway	49,100	GJ	31-Oct-2017	0.358		0.358
24	TCPL Firm STS Injection - Total			99,821	GJ				
<b>Centra Transmission Holdings Inc.</b>									
25	Centra Transmission Holdings Inc.	Spruce	Union MDA	149.6	10 <sup>3</sup> m <sup>3</sup>	31-Oct-2015	0.221		0.221
26	Centra Pipelines Minnesota Inc.	Sprague	Baudette	5,281	MCF	31-Oct-2015	0.061		0.061
27	CTHI FT - Total			5,695	GJ		0.283		0.283

Exchange Rate 1 US =  
Conversion Factor  
Heat Content

1.1271 CAD  
1.055056  
38.07

Bank of Canada USD Close Oct. 31, 2014

**2014/15 Gas Supply Plan Memorandum**  
**Appendix D**  
**UNION GAS LIMITED**  
Summary of Upstream Transportation Contracts - as at November 1, 2014  
Southern Operations Areas

Line No.	Upstream Pipeline	Primary Receipt Point	Primary Delivery Point	Contract Quantity	Contract Units	Contract Termination Date	Unitized Demand Charge (\$Cdn/GJ)	Commodity Charge (\$Cdn/GJ)	100% LF Toll (\$Cdn/GJ)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h=f+g)
<b>TransCanada Pipeline</b>									
1	Dawn to Union CDA FT	Dawn	Union CDA	60,000	GJ	31-Oct-2017	0.204		0.204
2	Empress to Union CDA FT	Empress	Union CDA	46,682	GJ	31-Oct-2017	1.606		1.606
3	Empress to Union CDA FT	Empress	Union CDA	20,645	GJ	31-Dec-2017	1.606		1.606
4	Niagara to Kirkwall	Niagara	Kirkwall	21,101	GJ	31-Oct-2022	0.142		0.142
5	TCPL FT - Total			148,428	GJ				
<b>Alliance Pipelines/Vector Pipelines</b>									
6	Alliance	Northern Alberta	Cdn/US Interconnect	2,266.2	103M3	30-Nov-2015	0.893		0.893
7	Alliance (L.P.)	Cdn/US Interconnect	Vector	80,000	MCF	30-Nov-2015	0.614		0.614
8	Vector (L.P.) FT1	Chicago	Cdn/US Interconnect	80,000	DTH	30-Nov-2017	0.246	0.001	0.247
9	Vector Canada FT1	Cdn/US Interconnect	Dawn (Union)	84,405	GJ	30-Nov-2017	0.019		0.019
10	Alliance/Vector - Total			84,405	GJ		1.772	0.001	1.774
<b>Panhandle Eastern Pipe Line Field Zone</b>									
11	PEPL FT	Panhandle Field Zone	Ojibway (Union)	25,000	DTH	31-Oct-2017	0.454	0.046	0.501
12	PEPL FT	Panhandle Field Zone	Ojibway (Union)	2,000	DTH	31-Oct-2017	0.342	0.046	0.388
13	PEPL FT	Panhandle Field Zone	Ojibway (Union)	10,000	DTH	31-Oct-2015	0.454	0.046	0.501
14	PEPL - Total			39,307	GJ				
<b>Trunkline Gas Company/Panhandle Eastern Pipe Line</b>									
15	Trunkline FT	East Louisiana	Bourbon	20,467	DTH	31-Oct-2017	0.123	0.015	0.138
16	PEPL EFT	Bourbon	Ojibway (Union)	20,000	DTH	31-Oct-2017	0.080	0.013	0.092
17	TGC/PEPL FT - Total			21,101	GJ		0.203	0.028	0.231
<b>Vector Pipelines</b>									
18	Vector (L.P.) FT1	Chicago	Cdn/US Interconnect	81,000	DTH	30-Nov-2015			
19	Vector Canada FT1	Cdn/US Interconnect	Dawn (Union)	85,460	GJ	30-Nov-2015			
20	Vector - Total			85,460	GJ		0.267	0.001	0.268
21	Vector (L.P.) FT1	Chicago	Cdn/US Interconnect	25,000	DTH	31-Oct-2017	0.193		
22	Vector Canada FT1	Cdn/US Interconnect	Dawn (Union)	26,376	GJ	31-Oct-2017	0.010		
23	Vector - Total			26,376	GJ		0.203	0.001	0.204
<b>Michigan Consolidated Gas Company (MichCon)</b>									
24	MichCon	MichCon Generic	St. Clair (Union)	10,000	DTH	31-Oct-2015	0.004		0.004
25	MichCon - Total			10,551	GJ				
<b>Other:</b>									
26	St.Clair Pipelines L.P. (St.Clair Pipeline)	St. Clair/Intl Border	St. Clair/Intl Border	214,000	GJ	31-Oct-2023			
27	St.Clair Pipelines L.P. (Bluewater Pipeline)	Bluewater/Intl Border	Bluewater/Intl Border	127,000	GJ	31-Oct-2023			

Exchange Rate 1 US =  
Conversion Factor  
Heat Content

1.1271 CAD  
1.055056  
38.07

Bank of Canada USD Close Oct. 31, 2014

## 2014/15 Gas Supply Plan Memorandum

### Appendix E

#### Summary of Union 's 2015 and 2016 TCPL New Capacity Open Season Bids

##### TCPL New Capacity Open Season for November 1, 2015

Service	Path	GJ/d	Purpose
Short-Haul Transportation	Parkway - Union EDA	75,000	Transition of existing long-haul transportation from Empress (58 TJ/d) and STS service (42 TJ/d) to Union EDA
Enhanced Market Balancing	Union EDA	25,000	
<b>TOTAL Union EDA</b>		<b>100,000</b>	

Short-Haul Transportation	Parkway - Union NDA	10,000	Transition of existing long-haul transportation from Empress to Union NDA
<b>TOTAL Union NDA</b>		<b>10,000</b>	

<b>Total Bids - Union</b>		<u><u><b>110,000</b></u></u>	
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##### TCPL New Capacity Open Season for November 1, 2016

Service	Path	GJ/d	Purpose
Short-Haul Transportation	Parkway - Union NDA	33,000	Transition of existing long-haul transportation from Empress to Union NDA
Short-Haul Transportation	Parkway - Union NDA	67,000	Replace upstream diversions to serve Union North on design day
<b>TOTAL Union NDA</b>		<b>100,000</b>	

Short-Haul Transportation	Kirkwall - Amended Union CDA	135,000	Service to Hamilton and Nanticoke gate stations
<b>TOTAL Kirkwall - Amended Union CDA</b>		<b>135,000</b>	

Short-Haul Transportation	Parkway - Union NDA, NCDA and EDA	29,115	Bid on behalf of Union North T-Service customers for Union's T-Service to Dawn Service
<b>TOTAL T-Service</b>		<b>29,115</b>	

<b>Total Bids - Union and T-Service</b>		<u><u><b>264,115</b></u></u>	
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# 2015 Annual Stakeholder Meeting

April 8, 2015



# Meeting Agenda

## Opening Comments

**Mark Kitchen**

*Director, Regulatory Affairs*

## 2014 Financial Results

**Sherri Steingart**

*Controller*

## 2014/2015 Gas Supply Plan

**Chris Shorts**

*Director, Gas Supply*

## 2014/2015 Winter Experience

**Chris Shorts**

*Director, Gas Supply*

## Facilities Expansions

**Jim Redford**

*Director, Business Development and  
Upstream Regulation*



# Meeting Agenda

## QRAM Reference Price

**Mary Evers**

*Manager, Gas Supply*

## North Services

**Tina Hodgson**

*Manager, Product Process & Development*

## Community Expansion

**Jeff Okrucky**

*Director, Distribution Marketing*

## Residential Customer Perceptions of Union Gas

**Jeff Okrucky**

*Director, Distribution Marketing*

## IT Major Projects Update

**Mike Packer**

*Director, Information Systems*

## Future Regulatory Applications & Wrap-up

**Mark Kitchen**

*Director, Regulatory Affairs*



# Purpose of Meeting

In Section 12.2 of the EB-2013-0202 Settlement Agreement, parties agreed to an annual funded stakeholder meeting where Union would:

- Review previous year's financial results (i.e. earnings, capital spending) and other key operating parameters (i.e. SQL performance) for the most recently completed year;
- Present and explain market conditions and expected changes/trends, and the impact these may have on the regulated operations
- Present and review the gas supply plan for the coming year;
- Present new capital projects that meet the capital pass-through criteria as defined in Section 6.6; and,
- Present results of any customer surveys undertaken during the year.



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# 2014 Financial Results

Sherri Steingart

*Controller*

# Financial Results Agenda

- 2014 Utility Financial Results
- Capital Spend
- Deferral Sharing Accounts
  - Short-Term Storage & Other Balancing Services
  - Transportation Optimization
  - Demand Side Management Activity
- 2015 Trends and Cost Pressures
- Service Quality Requirements and Billing Performance

# 2014 Utility Financial Results

Particulars (\$ millions)	Earnings before interest and taxes	Rate Base	Return on equity
2013 Board-approved	291	3,735	8.93%
<u>2014 Actual</u>			
Weather normalized	302	3,976	9.23%
Weather	29		
<b>Total</b>	<b>331</b>	<b>3,976</b>	<b>10.69%</b>

# Capital Spend

Particulars (\$000s)	Actual 2013	Actual 2014	Variance
Storage	5,742	7,418	1,676
Transmission	106,647	191,089	84,442
Distribution	164,946	162,379	(2,567)
General	35,167	47,458	12,291
Other	55,696	68,300	12,604
Total	368,198	476,644	108,446
Less: Parkway West Reliability, and Brantford-Kirkwall/Parkway D Project	51,966	139,085	87,119
Total less spend on approved capital pass-through projects	316,232	337,559	21,327



## Deferral Sharing Accounts



# Short-Term Storage & Other Balancing Services

Particulars (\$000s)	Board-Approved	Actuals	Variance
Net margin (pre-tax) <sup>1</sup>	5,056	1,429	3,627
Less: Shareholder portion (10%)	(505)	(143)	(362)
Ratepayer portion (90%)	4,551	1,286	3,265
Less: Subsidy in rates	(4,551)	(4,551)	-
<b>Deferral balance receivable</b>	<b>-</b>	<b>3,265</b>	<b>(3,265)</b>

<sup>1</sup> Board-approved 11.3 PJ vs. Actual 6.4 PJ

# Transportation Optimization

Particulars (\$000s)	Board- Approved	Actuals	Variance
Base exchanges	9,118	7,919	(1,199)
FT-RAM exchanges	5,800	-	(5,800)
Total exchanges revenue (pre-tax)	14,918	7,919	(6,999)
Less: Shareholder portion (10%)	(1,492)	(792)	700
Ratepayer portion (90%)	13,426	7,127	(6,299)
Less: Subsidy in rates	(13,426)	(17,010)	(3,584)
<b>Deferral balance receivable</b>	<b>-</b>	<b>9,883</b>	<b>(9,883)</b>

# DSM Activity

Costs	Board- Approved	DSM VA (\$000s)	
		Actual	Deferral Variance
RA - Residential	3,369	3,688	(319)
RA - C/I	11,566	12,741	(1,175)
Total Resource Acquisition	14,935	16,429	(1,494)
Large Industrial	4,829	4,102	727
Low Income	7,284	8,529	(1,245)
Market Transformation	1,469	1,263	206
Portfolio	3,533	3,391	142
<b>Total</b>	<b>32,050</b>	<b>33,714</b>	<b>(1,664)</b>
Scorecard	DSM Incentives (\$000s)		
Resource Acquisition	5,667		
Large Industrial T1/R100	-		
Low Income	2,764		
Market Transformation	557		
<b>Total</b>	<b>8,988</b>		

**These results are pre-verification and assume a realization rate of 100%.**

## 2015 Trends & Cost Pressures

- Salary inflation – trends at 2%-2.75%
- Employer benefit costs
- Increase in line locates
- Sewer safety inspections
- Pipeline integrity (O&M and Capital)
- Maintenance Capital
- Facility operating costs (rent, maintenance)
- IT software maintenance costs
- Postage prices
- Foreign exchange sensitivity
- Insurance premiums

# Service Quality Requirements and Billing Performance

Service Quality Requirements	Target	Actual
Call Answering Service Level - Annual	75.0%	73.5%
Call Answering Service Level - Monthly	40.0%	>40.0% each month
Abandon Rate	<10%	4.6%
Meter Reading Performance Measurement	<0.5%	0.4%
Appointments Met Within the Designated Time Period	85.0%	97.7%
Time to Reschedule a Missed Appointment	100.0%	99.9%
Percentage of Emergency Calls Responded Within One Hour	90.0%	97.8%
Number of Days to Provide a Written Response	80.0%	100.0%
Number of Days to Reconnect a Customer	85.0%	91.9%
<b>Billing Performance</b>		<b>Actual</b>
Total Number of Billings		16,923,763
Total Number of Manual Checks Done as per QAP		154,888
Total Number of Manual Checks Done when Meter Reads Show Excessively High Usage as per QAP Criteria		117,263
Total Number of Manual Checks Done when Meter Reads Show Excessively Low Usage as per QAP Criteria		7,552



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# 2014/2015 Gas Supply Plan

Chris Shorts  
*Director, Gas Supply*

# Gas Supply Plan Agenda

- Market Conditions during Plan creation
- Objectives of the Gas Supply Plan
- Key Inputs and Assumptions
- Key Results and Outcomes
- Winter 2014/2015
- Future Trends that may impact the Gas Supply Plan

# Market Conditions during Plan creation

- No significant change from 2014
- Emerging Supply Sources
  - Shift from Western Canadian Sedimentary Basin to Marcellus/Utica supplies
- Stable gas and oil price forecast
- Shift from long-haul transportation to short-haul transportation
  - Improved diversity and security of supply
  - Access to liquid supplies at Dawn
- Changing TransCanada Tolls
  - Revised TransCanada tolls expected January 1, 2015 per Settlement Agreement
  - Settlement Agreement Negotiation Hearing as of September 2014





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# Gas Supply Plan Overview

# Objectives and Goals of the Gas Supply Plan

## ■ Objective

- The Gas Supply Plan identifies the efficient combination of upstream transportation, supply purchases, and storage assets required to serve sales service and bundled DP customers' annual, seasonal and design day gas delivery requirements while adhering to the planning principles

## ■ Goal

- Ensure that customers receive secure, diverse gas supply at prudently incurred cost. These principles are:
  - » *Ensure secure and reliable gas supply to Union's service territory;*
  - » *Minimize risk by diversifying contract terms, supply basins and upstream pipelines;*
  - » *Encourage new sources of supply as well as new infrastructure to Union's service territory;*
  - » *Meet planned peak day and seasonal gas delivery requirements; and,*
  - » *Deliver gas to various receipt points on Union's system to maintain system integrity.*

## In-franchise Demand

- Total bundled customer forecast volumes (including U2) has increased by approximately 5.5% in Union's 2014/2015 Gas Supply Plan from what was reflected in Union's 2013/2014 Gas Supply Plan:
  - The general service forecast has increased by 5.5% in Union South and by 3.9% in Union North primarily due to higher than expected use in the residential and commercial markets
  - The contract market has increased by 9.3% in Union South and decreased by 9.1% in Union North for a total increase of 7.2% or 3.6 PJ primarily due to the global economic forces and production activity at a number of industrial establishments

# General Service In-franchise Demand – Sales Service

- Total sales service demands have increased by 13.9 PJ
- In the general service market, sales service demands have increased by 10.8 PJ in Union South and 2.7 PJ in Union North driven by:
  - Higher than expected use primarily in residential and commercial markets
  - Estimated customer attachments in 2015 of 12,989 in Union South and 6,103 in Union North
  - For Union South, additional supply and transportation capacity is required to meet increased demand as a result of return to sales service.
    - » *Approximately 20,000 bundled direct purchase customers have returned to sales service in Union South relative to what was included in the 2013/2014 Gas Supply Plan.*
  - For Union North, Union plans for pipe capacity for both sales service and bundled direct purchase customers, therefore no impact to Union's contracted capacity as a result of return to system.

# Union South Design Day

- For Union South, the Gas Supply Plan focused on upstream supply and transportation to meet Union's annual demand requirements.
  - Upstream pipe flows at 100% utilization each day of the year (annual volume requirement is divided by 365 days).
  - When usage is less than the upstream supply, the excess supply is injected into storage.
  - When demands are greater than the upstream supply, gas is withdrawn from storage.

## Winter 2014/2015 Design Day

### Union South Design Day Demand and Resources (TJ/day)

#### Demand

Union South*	2,868
--------------	-------

#### Supply

Storage at Dawn	1,381
Non-obligated (e.g. Power Plants)	188
TCPL Empress to Union CDA	67
Trunkline	21
Panhandle	39
TCPL Niagara	21
Ontario Parkway	359
Alliance/Vector	84
Vector	112
MichCon	11
Ontario Dawn	539
Customer Supplied Fuel	45
<b>Total Supply</b>	<b>2,868</b>

\* includes Sales Service, Bundled Direct Purchase, T-service, Unbundled

# Union North Design Day

## Winter 2014/2015 Northern Firm Demand on Peak Day in GJ/Day

	Delivery Area						<u>Total</u>
	<u>MDA</u>	<u>WDA</u>	<u>SSMDA</u>	<u>NDA</u>	<u>NCDA</u>	<u>EDA</u>	
<b>Firm Demand</b>							
Bundled Firm Contract Demand	-	4,313	984	1,419	-	10,150	16,865
Non-Industrial Design Day Demand	5,553	76,875	36,101	148,326	37,049	145,246	449,150
T-Service Storage Redelivery Demand	-	-	386	12,606	-	-	12,992
<b>Peak Day Demand for the Region</b>	<b>5,553</b>	<b>81,188</b>	<b>37,471</b>	<b>162,351</b>	<b>37,049</b>	<b>155,397</b>	<b>479,008</b>
<b>Firm Supply</b>							
TCPL FT from Empress	4,522	36,580	8,143	58,077	8,796	58,831	174,949
STS Firm Withdrawals from Parkway	-	31,420	-	46,474	28,253	61,566	167,713
Diversion from South TCPL contract	1,031	13,188	-	52,990	-	-	67,209
STS Firm Withdrawals from Dawn	-	-	29,328	-	-	-	29,328
Parkway to EDA FT	-	-	-	-	-	35,000	35,000
<b>Peak Day Supply to the Region</b>	<b>5,553</b>	<b>81,188</b>	<b>37,471</b>	<b>157,541</b>	<b>37,049</b>	<b>155,397</b>	<b>474,199</b>
Excess(Shortfall) by delivery area				(4,810)			(4,810)

## Union North Design Day

- There was a forecast shortfall of 4,810 GJ/day in Union North on design day.
  - Shortfall was largely due to lower forecast declines in demand across Union North delivery areas (higher demand than 2013/2014 Gas Supply Plan).
  - Union has contracted for firm incremental capacity of 4,800 GJ/day from Empress to Union NDA effective November 1, 2014.

# Union North Design Day Unutilized Pipe (UDC)

- Union North, the upstream transportation capacity is first sized to meet the winter design day demand requirement.
- Gas supply flowing on that capacity is also needed to meet average annual demand requirements.
- A portion of Union's contract capacity is planned to be unutilized during the year (UDC).
- The total forecast UDC is 12.1 PJ in the 2014/2015 Gas Supply Plan.
- No UDC planned for Union South.
- If weather is colder than normal and annual consumption is greater, and if it is economical to do so, Union will use this capacity to meet incremental supply requirements in either Union North or Union South subject to TCPL's authorization of downstream diversions.

## North Transportation Capacity vs Demand 2014/2015 Gas Supply Plan

	PJ
Total Contracted Capacity (174.9)	63.9
Incremental NDA capacity (4.8 TJ/day)	1.8
Withdrawal from Storage	0.3
less:	
Total Annual Sales Service demand	38.9
Total Annual Bundled DP demand	14.9
<b>Total UDC</b>	<b>12.1</b>

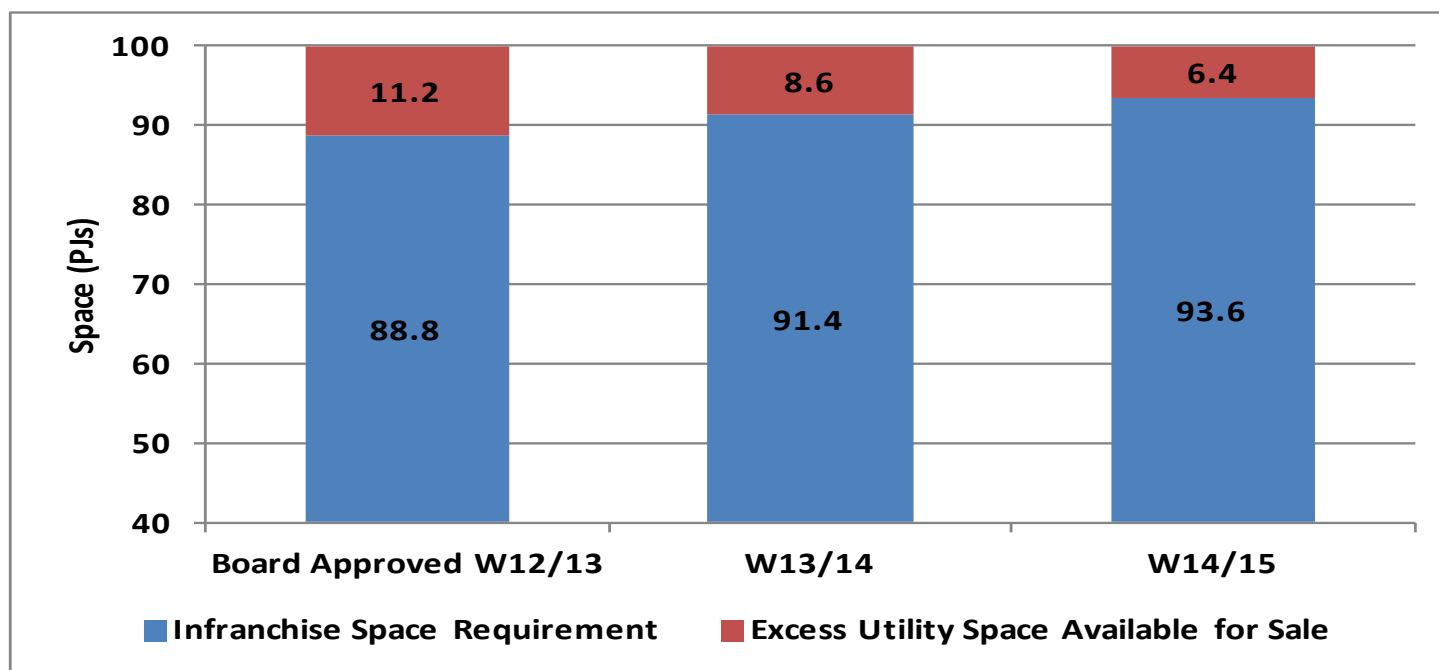


# 2014 Upstream Transportation Portfolio Changes

- Upstream Transportation Expiring October 31, 2014
  - Panhandle Eastern Pipeline – 10,551 GJ/d (one-year term)
  - Michcon-SSMDA – 6,143 GJ/day
  - Union CDA market-based contracts – 53,000 GJ/day (five-month term)
- Union South Requirements
  - Approximately 75,000 GJ/d of supply in addition to what is currently contracted on upstream pipelines, is required as of November 2014
    - » *Upstream Transportation Acquired for November 1, 2014*
      - Panhandle Eastern Pipeline – 10,551 GJ/day
      - Michcon Pipeline – 10,551 GJ/day
      - Vector Pipeline – 26,376 GJ/day
      - Dawn delivered supplies make up balance for flexibility and diversity of supply
  - Union CDA market-based contracts – up to 68,000 GJ/day
- Union North
  - Empress to SSMDA – 6,143 GJ/day
  - Design Day Requirement - TCPL Empress to Union NDA 4,800 GJ/day acquired

# In-franchise Storage

- Union operates storage of 166 PJ
  - In-franchise NGEIR allotment is 100 PJ
    - » *This is to meet both existing and future needs*



## Key Outcomes of 2014/2015 Gas Supply Plan

- Total volume of supply required for sales service is 170 PJ for the period November 1, 2014 to October 31, 2015 (including net compressor fuel and UFG)
  - 2013/2014 Gas Supply Plan sales service supply requirement was 155 PJ
- Sales service demands are growing by 13.9 PJ over the previous forecast. This is mainly due to an increase of 13.5 PJ in the General Service market
- In addition to supply sourced on current contracted transportation capacity, approximately 75,000 GJ/d of supply is required as of November 2014 to balance sales service supply and demands in Union South. Transportation capacity has been committed for a portion of this requirement and the remainder will be purchased at Dawn
- Increase in Union North design day requirement of 4,800 GJ/d for Union North
- In-franchise storage allocation at November 2013 is 93.6 PJ. This represents an increase of approximately 2.2 PJ from Union's 2013/2014 Gas Supply Plan
- No planned UDC for Union South and 12.1 PJ for Union North



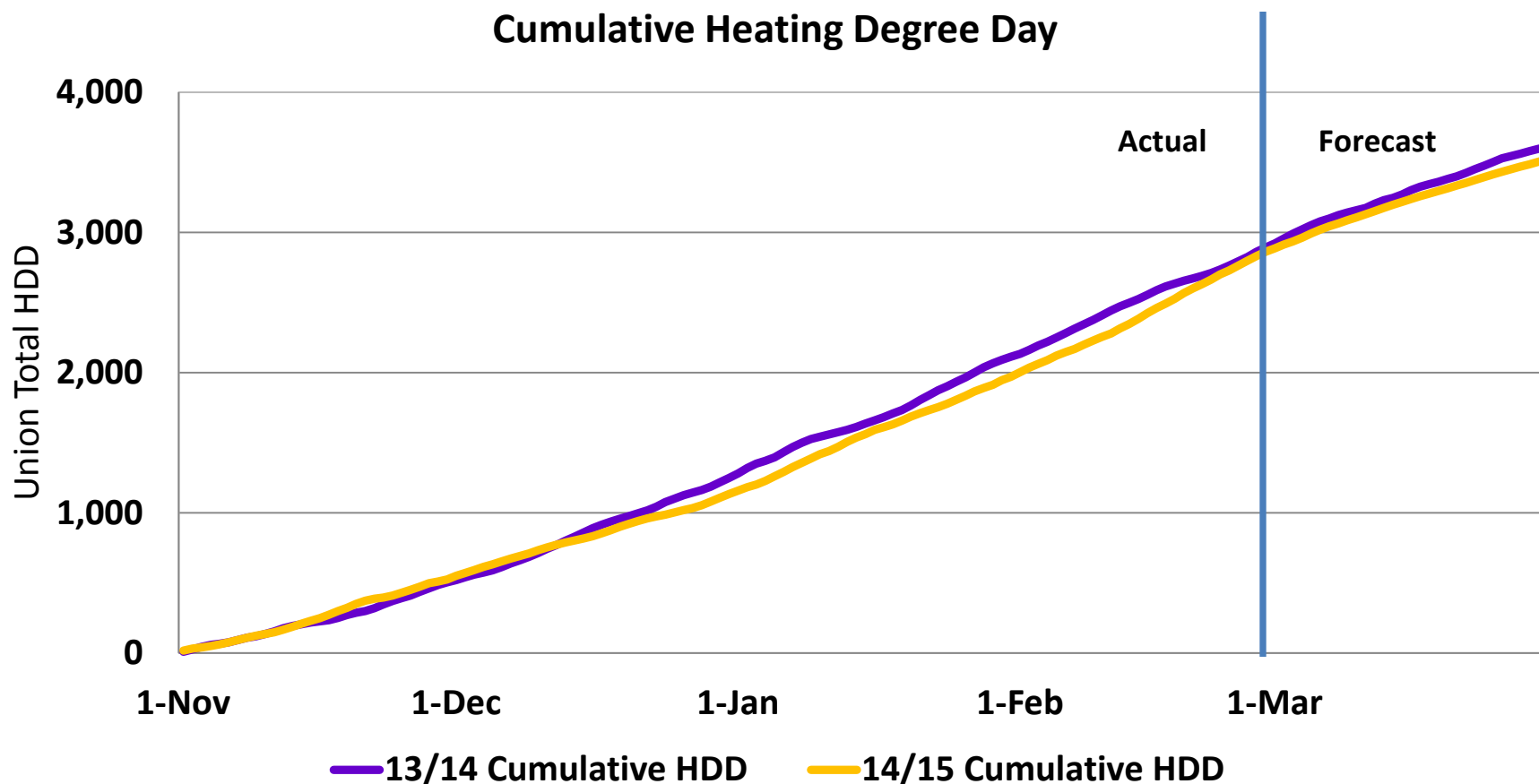
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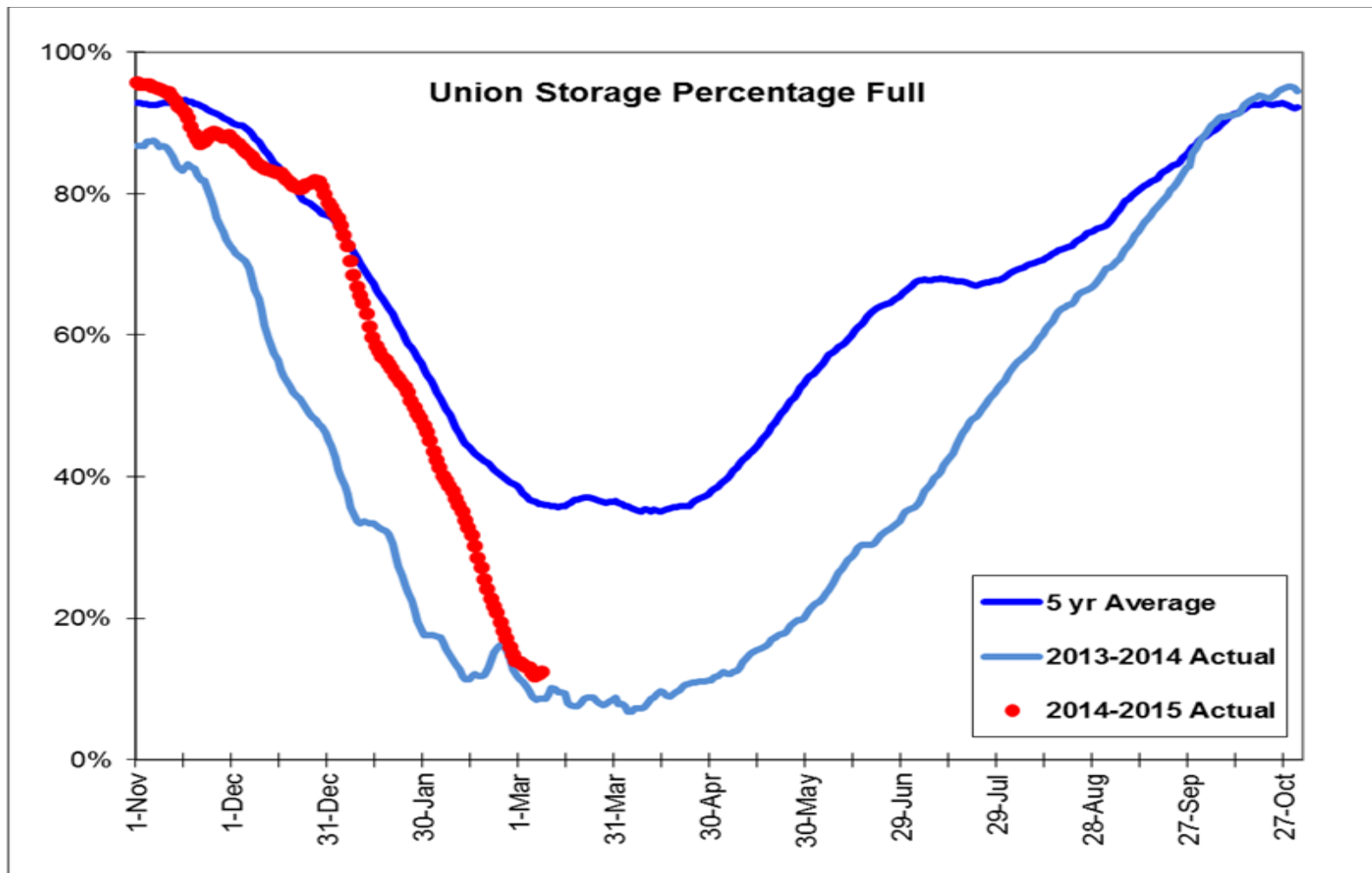
Winter 2014/2015

# Winter 2014/2015



**Overall Winter 2014/2015 is as cold as the Winter of 2013/2014**

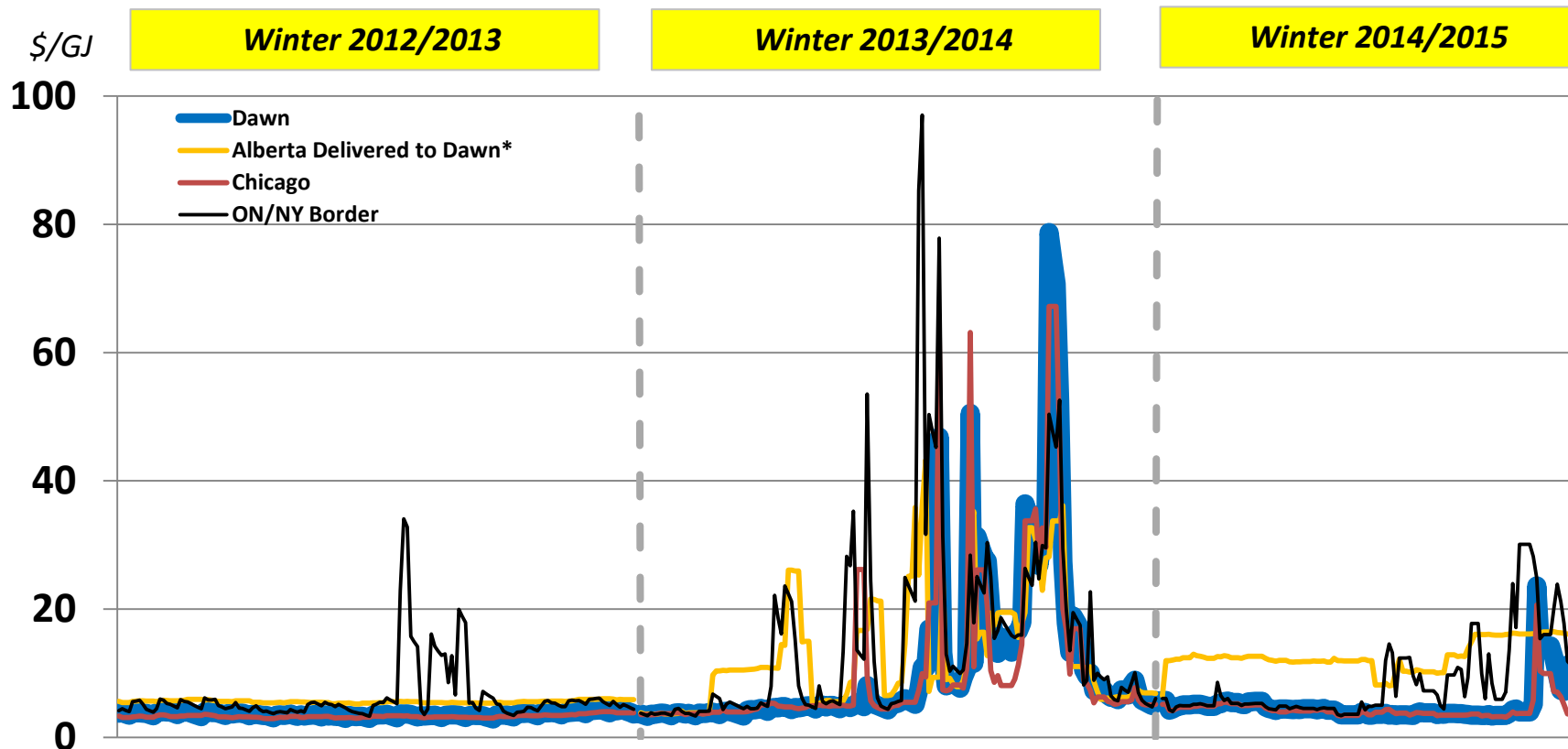
# Winter 2014/2015



**As of March 1, 2015, Union's storage inventory was similar to 2013/2014**

# Winter 2014/2015

## Maximum Daily Natural Gas Prices



*\*NOTE: Delivered using TransCanada interruptible service*

**Dawn daily gas prices were lower and more stable**

# 2014/2015 Winter Interruptions

## Impacted Distribution Customers:

- 72 on Panhandle system
  - 8 interruption notices, totaling 13 full days and 6 partial days
- 9 on Sudbury system
  - 2 interruption notices, totaling 5 full days





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## Future Trends that may impact the Gas Supply Plan

# Future Trends

- Natural Gas Market Review - EB-2014-0289
  - Union's gas supply planning processes and the gas supply system are designed to efficiently and cost effectively meet demands of customers
  - Utilities need flexibility to effectively manage their operations
  - No need to change the way that both upstream transportation and storage assets are planned for and managed
- Access to Dawn for Union North
  - Transition of TransCanada long-haul transportation to short-haul and enhancing Northern services
    - » *Both Bundled T and T-service*
- TransCanada Open Seasons
  - Union bid for sales service/Bundled DP and T-Service customers

- Need to reduce reliance on TransCanada Diversions and Discretionary Services
  - Address operational changes going forward
  - Shift capacity into Union MDA/Union WDA for design day requirements
- Changing TransCanada Renewal Notice
  - Revised from 6 months to 2 years
- Dawn to Parkway Expansions
  - Facilities approved subject to conditions
- Burlington Oakville Project
  - To ensure security of supply and meet growing needs

# NEXUS Gas Transmission Project

## Attracting New Supply to Dawn

- New pipeline to connect Utica & Marcellus supplies to U.S. Midwest, and Ontario markets
- Strong development partners: DTE Energy and Spectra Energy
- 250-mile (400 km) large diameter pipeline delivering up to 1.5 PJ/d
- In-service November 2017
- Uses existing infrastructure and utility corridors as much as possible
- Firm path to Dawn Hub with interconnects to major markets – MichCon, Consumers, Vector, Tecumseh and Dawn



New pipeline infrastructure required to connect new supplies to Eastern Canadian and US Midwest markets

# Union Gas NEXUS Precedent Agreement

- Union entered NEXUS non-binding Open Season in 2012 for a volume of 158,000 GJ/d
- Union executed a Precedent Agreement (PA) with the NEXUS partners in 2014
  - Rate of \$0.77 US/dth plus fuel
  - Subject to +/- 15% capital cost adjustments
- Union will be filing for cost pre-approval of the NEXUS contract
  - Expect to file with Board in Q2 2015
  - Need Approval by October 2015
    - Condition Precedent

## Benefits of NEXUS to Dawn

- Allow Ontario customers direct access to large amounts of competitively priced natural gas
- Access to new and growing supply basin in close proximity to Ontario
- Increase security and diversity of supply
- Enhances liquidity of Dawn Hub for benefit of all Ontario consumers
- Create opportunities for new suppliers to access Dawn

New sources of natural gas ensures competitive pricing and diversity of supply for all of Ontario



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# Facilities Expansions

Jim Redford

*Director, Business Development and Upstream  
Regulation*

# Facilities Expansions Agenda

- TransCanada Settlement Agreement
- 2015-2017 Dawn Parkway System Expansion
- Burlington Oakville Project





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# TransCanada Settlement Agreement

# Settlement Agreement

*Path forward for markets and TransCanada as a result of changing natural gas supply dynamics*

- Approved by NEB in November 2014 (RH-001-2014)
  - Review of TransCanada pricing discretion and formal review of tolls in 2018
- TransCanada to use best efforts to accommodate requests for additional short haul contracts on a timely basis, including construction of new facilities
  - Supports Union shifting supply for Union North Sales Service and Bundled T customers
  - Supports TransCanada expanding, including King's North Project (2015), Vaughan Loop Project (2016) and any necessary 2017 expansion
  - Supports Dawn Parkway expansion in 2015-2017 and beyond
  - Supports Burlington Oakville Pipeline
  - Supports new services to North T-Service customers

## Settlement Agreement Cont'd

- Term up provision on TransCanada requires 5 year extension on expansion path
  - Provides medium term commitment from existing shippers in the event of a requirement for expansion facilities
  - TransCanada initiated the provision effective March 30, 2015; impacted contracts must extend term to October 31, 2022 to retain renewal rights.
- TransCanada filed RH-001-2014 Compliance Tolls with the NEB on March 31, 2015
  - Compliance Tolls reflect updated billing determinant and cost information up to December 31, 2014
  - Slight increase in EOT tolls compared with Applied for tolls (155% vs. 152% of RH-003-2011 Tolls) and slight decrease in Prairies and NOL tolls (108% vs. 112%)



# 2015-2017 Dawn Parkway System Expansion

# Board-Approved Projects

## 2015 Parkway Projects

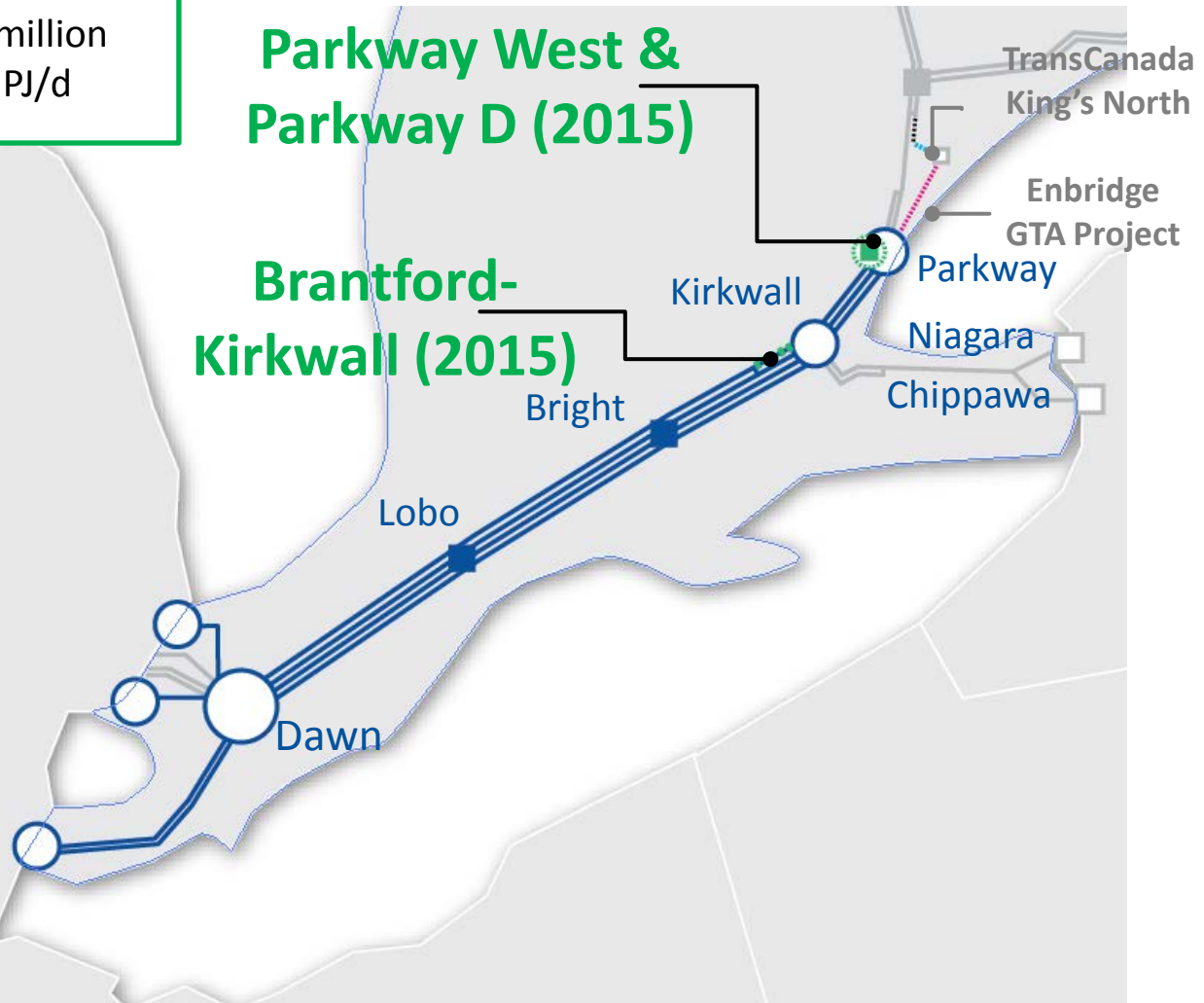
2015 Facility Expansion = \$423 million  
Customer Commitment = 0.7 PJ/d

### Parkway West & Parkway D

- Construction well underway at Parkway West to meet Nov. 1/15 in-service
- Plant C & D turbine and compressor been delivered to site
- Operation Centre substantially complete

### Parkway West & Parkway D (2015)

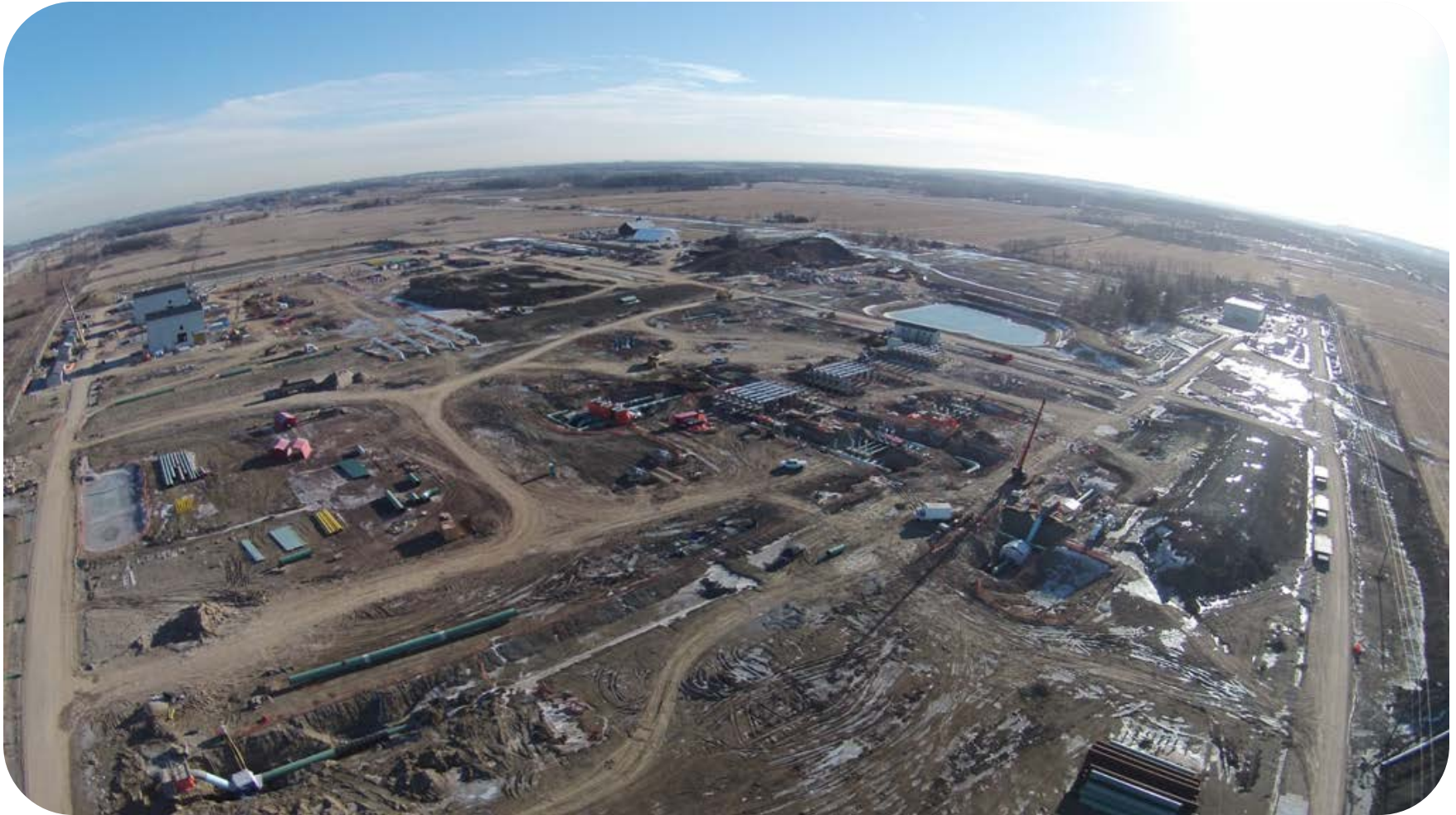
### Brantford-Kirkwall (2015)





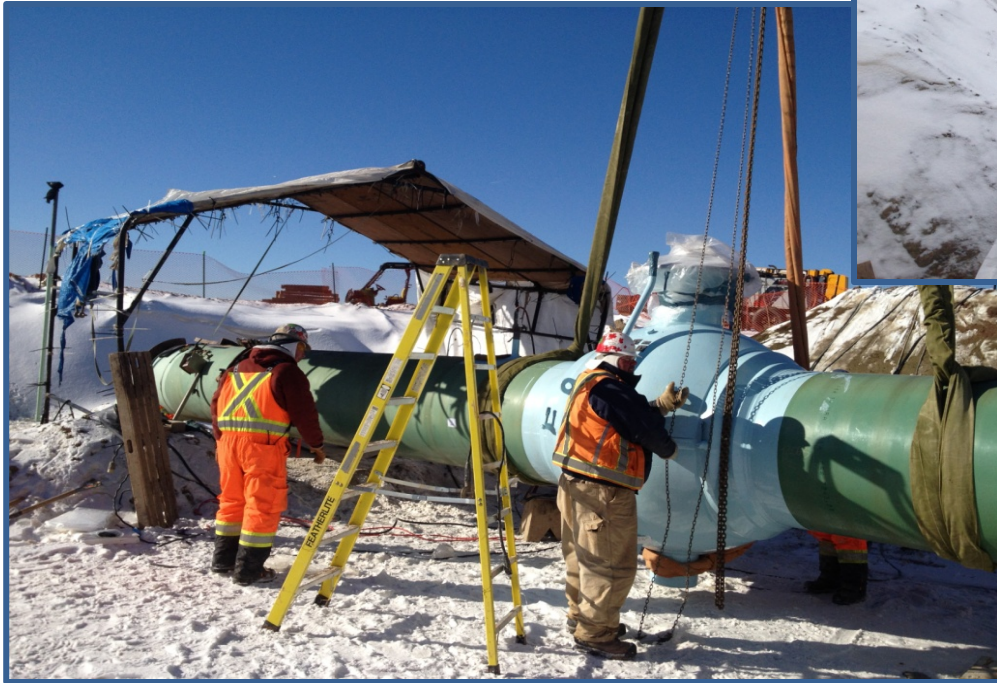
# 2015 Parkway Projects

## Parkway West Site



# 2015 Parkway Projects

## Parkway West Valve Installations





# 2015 Parkway Projects

## Brantford-Kirkwall Pipeline

### Brantford-Kirkwall

- Construction targeted to commence July 2015
- 94% of landowner rights obtained. Infrastructure Ontario outstanding.
- Pipe has been received
- Tree clearing complete
- Construction contractor retained
- Working with TransCanada to expedite King's North Project (regulation)
- In-service date scheduled for Nov. 1/15
- TransCanada in-service may be delayed beyond Nov. 1/15

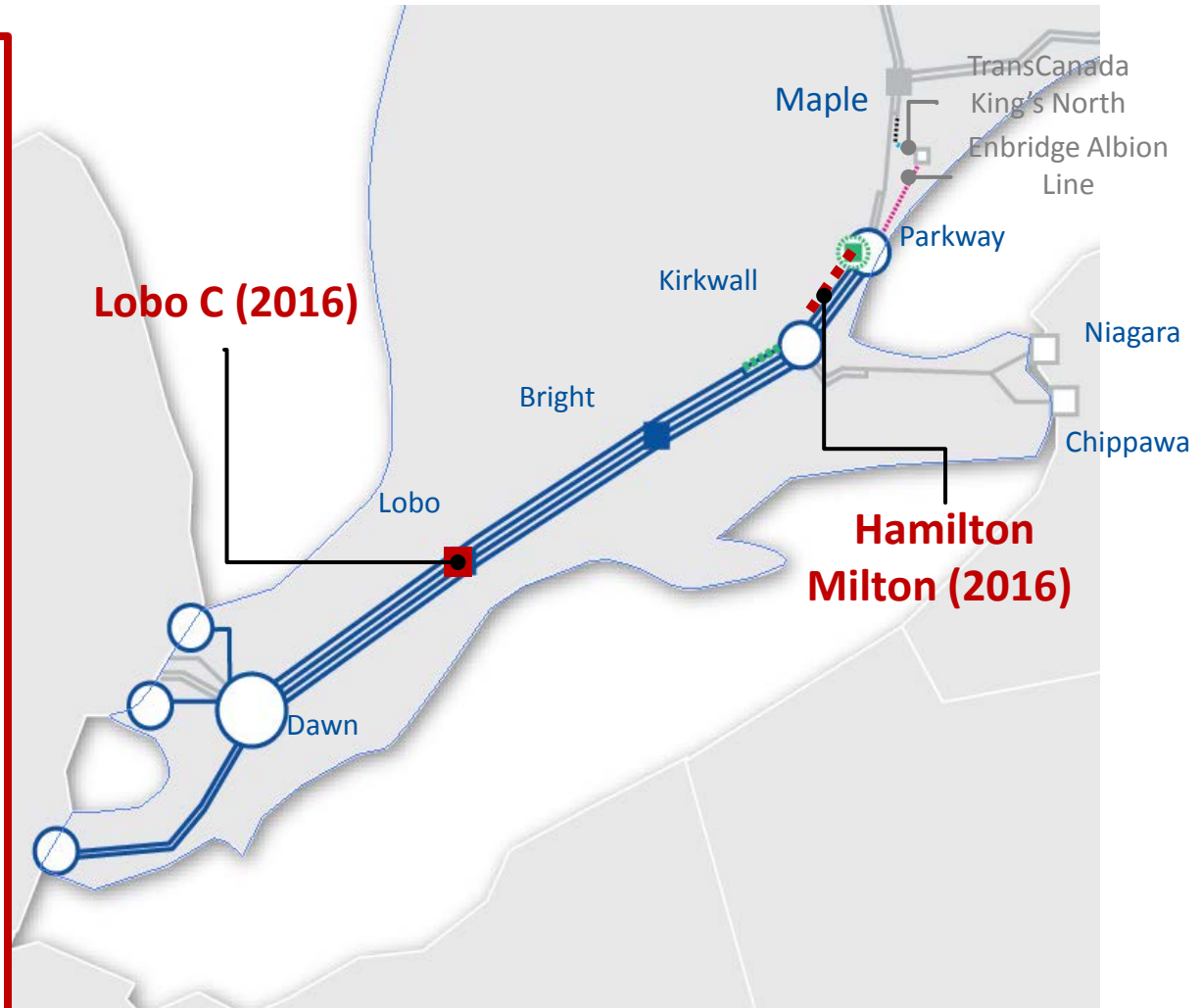




# Applied-For Approval Projects

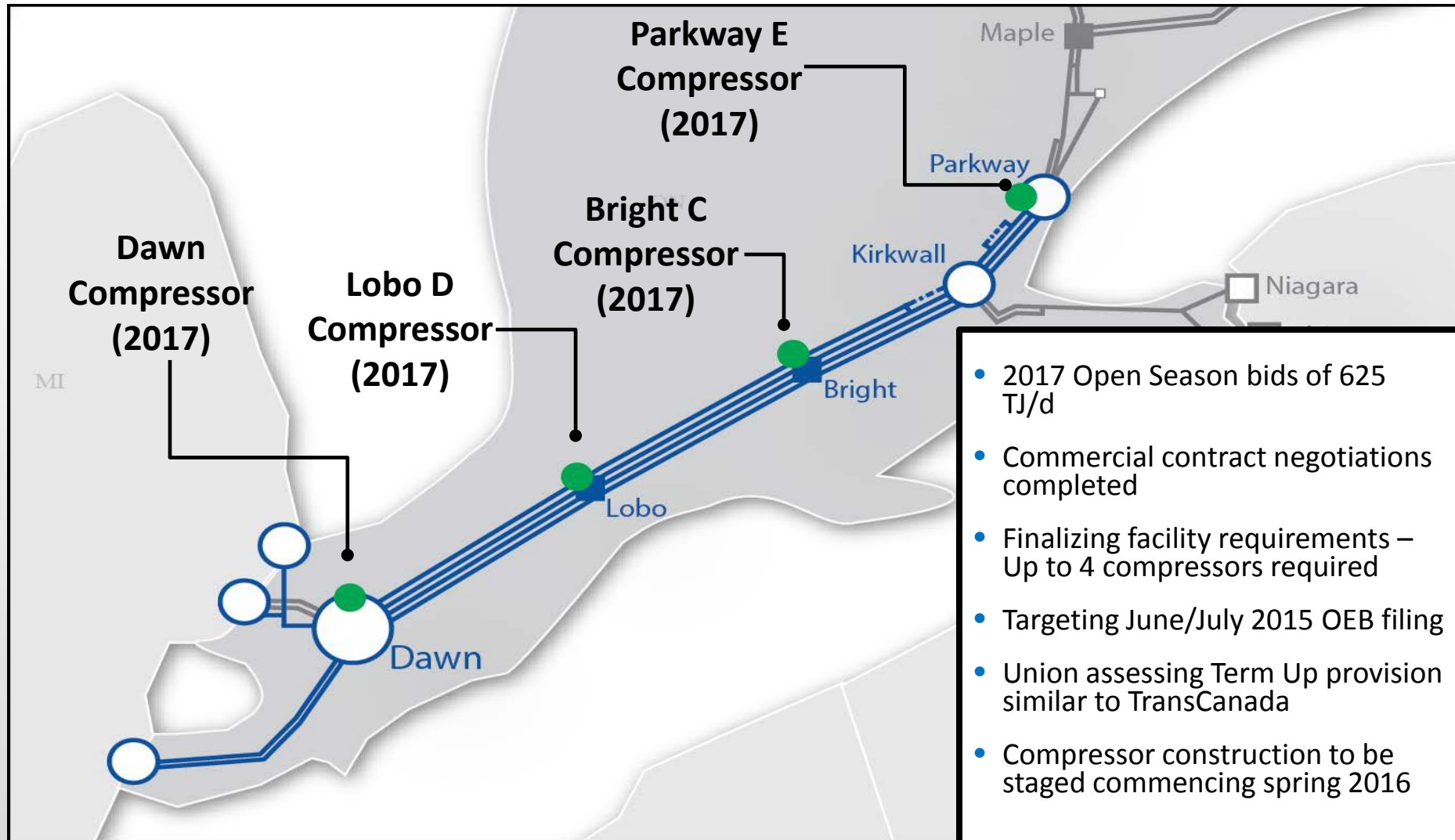
## 2016 Dawn Parkway System Expansion

- 2016 Facility expansion \$416 million
- Negotiated a settlement on most issues
- Stakeholder outreach continues with local politicians, authorities, NEC, agencies, First Nations
- Lobo C site plan approval received and construction set for July
- Hamilton Milton – land negotiations, pipe & valve orders
- TransCanada Vaughan Loop Project required in 2016 – expect NEB application Q2 2015



# Proposed Projects

## 2017 Dawn Parkway System Expansion



# Proposed Projects

## 2018 Dawn Parkway System Expansion



- Union has also received a request for 55 TJ/d of Dawn to Parkway transportation commencing November 1, 2018
  - Contract execution in spring 2015
- Union will continue to market 2018 Dawn Parkway transportation capacity
  - Expect fall open season
  - Next builds likely to be pipeline looping
  - Specific location will be dependent upon contracted demand and receipt points (Dawn to Parkway vs. Kirkwall to Parkway)



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# Burlington Oakville Project

# Proposed Projects

## 2016 Burlington Oakville Project

- NPS 20 pipeline from Dawn Parkway System to Bronte Gate Station
  - Provides security of supply for customers attached to the Burlington Oakville System
  - Will meet increasing demand in the western portion of the GTA
  - New pipeline is less expensive for ratepayers than existing 3<sup>rd</sup> party services
- Regulatory process underway
  - Application submitted December 2014
  - Union has responded to interrogatories
  - Next Step – Intervenor Evidence and interrogatories
  - Hearing to follow



# QRAM Reference Price

Mary Evers  
*Manager, Gas Supply*

# QRAM Reference Price

- The reference price and QRAM is designed to:
  - be a transparent benchmark that reflects market prices and provides correct price signal;
  - be formulaic and consistent;
  - avoid large PGVA balances and therefore large retroactive adjustments; and,
  - be adjusted on a quarterly basis.
- The reference price is used for:
  - Gas Supply Rates;
  - Benchmark for Cost of Gas deferrals (including spot gas);
  - Valuing gas in Inventory; and,
  - Delivery rate changes (UFG, compressor fuel, carrying costs of gas in inventory)

# Transportation Portfolio Changes

- Union's transportation portfolio is changing in response to changing market dynamics
- More of Union's supply will be sourced from Dawn or upstream of Dawn; less from Alberta.
  - Union South Portfolio
    - Current - approximately 40% of Union South supply sourced from Alberta (Alliance and TransCanada);
    - Future (by 2017) - approximately 3% or less from Alberta
  - Union North Portfolio
    - A portion of long-haul from Empress is being converted to short-haul from Dawn
      - » *Current - 100% sourced from Empress;*
      - » *future (by 2017) - less than 50% from Empress*



## QRAM Reference Price

- As more of Union's supply is sourced from Dawn, Empress pricing is no longer an accurate price signal of Union's gas costs for all delivery areas
- Union South
  - Dawn Reference Price is a better reflection of actual portfolio costs
- Union North
  - Alberta Border Reference Price is appropriate for delivery areas where supply will continue to be sourced from Empress
  - Dawn Reference Price is appropriate for delivery areas primarily sourced from Dawn



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# North Services

Tina Hodgson

*Manager, Product Process & Development*

# North Services Agenda

- North Services Overview
  - 1. Bundled T at Dawn (Bundled T Customers)
  - 2. North T-service Transportation from Dawn (T-service Transportation)
  - 3. North Storage at Dawn (T-service Dawn Storage)
  - 4. Key Messages and Timing

# North Services Overview

## Drivers of Change

- Underpinning transportation and redelivery assets for Union North are changing as early as November 1, 2015 to incorporate Dawn as a supply point

## Service Proposals

- Bundled T Customers
  - Add Dawn as an obligation point and accommodate for transportation rate changes
- T-Service customers
  - Introduce Dawn as a supply point (transportation service)
  - Introduce access cost based storage

# Union North Bundled T Direct Purchase Customers at Dawn (BT Customers)

## Service changes for all Bundled T customers:

- Obligated DCQ at both Dawn and at Empress that reflects Union's transportation portfolio
- Fuel requirement changes from customer providing fuel to a unit cost in transportation rates
- Financial true-up calculation at contract renewal reflects Empress or Dawn reference price dependent upon customer delivery area

## Start date of service to be driven by actual timing of Union's transportation changes

- A lag is anticipated between Union's transportation changes and the subsequent start date of the BT customer service change. The lag is due to the uncertainty of the in-service date(s) of the new short haul pipelines.

# Union North T-service Transportation from Dawn (T-service Transportation)



## Base Service and Supplemental Service

- North T-Service customers in the Union NDA, NCDA, EDA are eligible
- Transportation service from Dawn to the delivery area
- Target in-service date of November 1, 2016

## Base Service

- 1 year term, annual renewals subject to Union turnback
- Quantity restriction of up to 3,000 GJ/d per customer
- Deferral account for all eligible customers to capture excess capacity costs if they arise

## Supplemental Service

- 15 year term
- No deferral account required

# Union North Storage at Dawn (T-service Dawn Storage)

## Eligibility

- North T-Service customer
- Must hold year round, qualifying firm transportation from Dawn to their Delivery Area

## The Service

- Space and firm deliverability will be at cost based rates
- Space is part of the 100 PJ of regulated storage
- Service specifics under design

## Term

- 1 year term, annual renewals

# Union North Services Key Messages

- The three Union North services are anticipated to be filed in Q2 2015
- Uncertainty for in-service dates due to unknown in-service dates of new facility expansions
- Target In-Service dates, subject to Board approval, are:
  - Bundled T at Dawn (BT Customers)
    - April 1, 2016
  - North T-Service Transportation from Dawn (T-Service Transportation)
    - November 1, 2016
  - North Storage at Dawn (T-service Dawn Storage)
    - April 1, 2016





# Community Expansion

Jeff Okrucky

*Director, Distribution Marketing*

# Community Expansion Agenda

- Background
- Benefits
- Scale and Barriers
- Current Status
- Next Steps



# Background

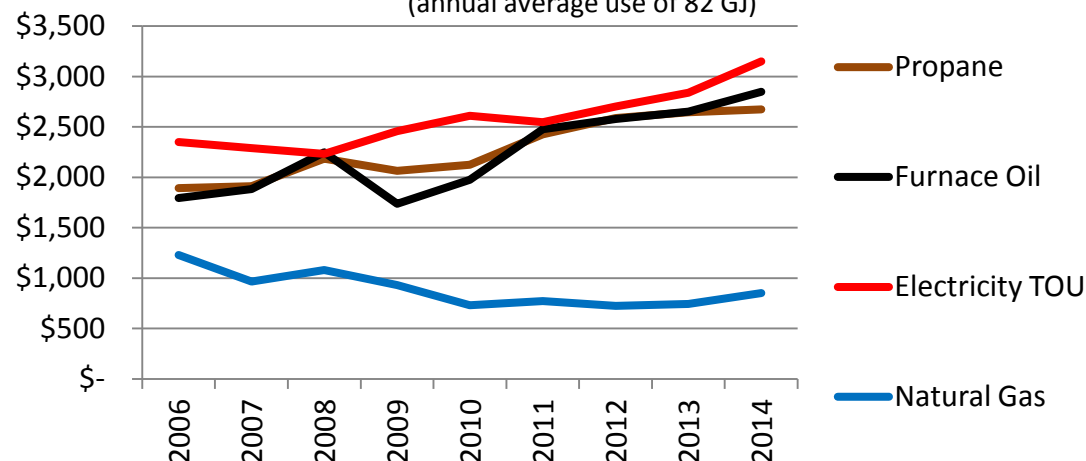
- Escalation in energy prices for other fuels has created unprecedented interest in conversion to natural gas

- Detailed discussion with a number of municipalities

- Ongoing dialogue with various ministries, OFA, and municipal associations

**Average Estimated Annual Cost of Energy**

(annual average use of 82 GJ)



- December, 2013, Provincial Long Term Energy Plan commitment
- Union undertook tabletop identification and costing exercise in Q2 2014 to better understand scale

# Community Expansion Benefits

- Residential customers can save \$1,500-\$2,500 in annual energy costs; mid sized commercial save in \$15,000 range
- Potential local economic stimulus resulting from \$45 million per year increase in disposable income for residents
- Removal of an economic development barrier for rural and northern towns and villages
- Construction and HVAC jobs through the conversion period



# Scale and Barriers

## Potential Scale

- Over 140 potential projects identified:
  - ~20 community projects with >500 properties
  - ~40 with >100 properties
- Natural Gas access potential for up to 45,000 customers serving a population of 120,000
- Gross Capital \$1.5B to serve all; broad range in feasibility gap across potential projects

## Barriers

- Economic Feasibility
  - Project average ~20 km average from existing gas system; generally larger communities are further away
- EBO 188 Guideline Flexibility
  - Very few communities with P.I. > 0.8; Prohibitive up-front contributions necessary to get to minimum economic feasibility requirements

## Current Status

- Provincial commitment to municipal support via:
  - \$200M in interest free Natural Gas Access Loans
  - \$30M in Natural Gas Economic Development Grants
- Continued dialogue with Ministries on how Provincial commitment might be further leveraged through regulatory (EBO 188) flexibility
- February 18, 2015 Board invitation to propose plans for natural gas expansions, including requests for flexibility or exemptions
- Identification of communities that could be serviced without Provincial funding if regulatory flexibility proposals are approved by the Board

# Proposed Regulatory Flexibility

- Capital Pass-Through treatment in rate setting
- Variance from current EBO 188 guidelines
  - Relaxation in minimum PI thresholds at Project, Investment Portfolio and Rolling Project Portfolio levels
- Flexibility in means of collecting, and treatment of, conversion customer and/or municipal contributions
  - Temporary volumetric rate rider for customers in new expansion communities
    - Consistent rate for all projects
    - Time period varies by community
  - Municipal agreement to forego incremental tax revenues for similar time periods

## Next Steps

- Detailed costing for communities that could be served through regulatory flexibility alone
- OEB section 36/section 90 filing for first phase (initial group of communities)
  - Expect fewer than 10 projects
  - Expect to file in Q2 2015
  - Intend to set stage for broader community expansion effort when Provincial funding is available
- Support development of natural gas access loans and grants for second phase of expansions
  - Offer support for Ministry development of eligibility criteria and related process
  - Encourage specific commitment to natural gas access loans and grants in Provincial budget





# Residential Customer Perceptions of Union Gas

Jeff Okrucky  
*Director, Distribution Marketing*

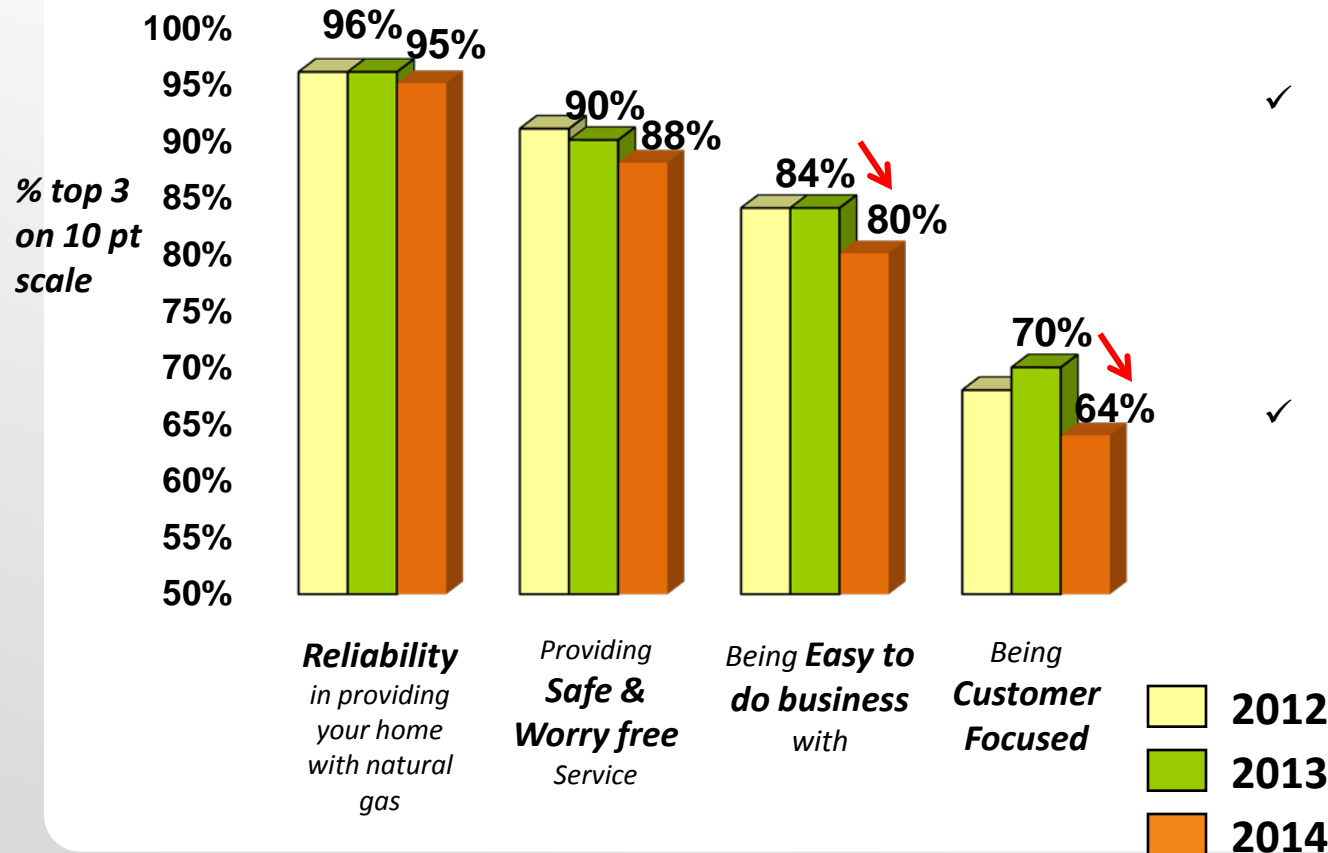
# Measuring Customer Perceptions

- Union Gas measures customer perceptions of the company and service provided on an ongoing basis:
  - ✓ Telephone Interviews are conducted weekly with a random sample of residential customers to achieve a total annual sample of 1200, providing a margin of error of 2.8% at the 95% confidence level.
  - ✓ For specific points of touch, such as the customer contacting Union through the call centre or where a Utility Service Representative has performed meter-related work at the home, an additional telephone interview process is administered to measure customer satisfaction with the experience.
  - ✓ All telephone Interviews are conducted by a third party research supplier, protecting the anonymity of the customer feedback.

# Residential Customer Perceptions of Union Gas

## Key Indicators

*How would you rate Union Gas for each of the following... where 1 is poor and 10 is excellent?*



- ✓ **Red Arrows** indicate statistically significant decline
- ✓ Indicators reveal strong positive perceptions on providing safe and reliable service
- ✓ Winter 2013/2014 and subsequent price increases reflected in less positive view of Union relative to the 2013 peak ("easy to do business" and "customer focus").
- ✓ Ratings continue to be supported by positive customer experience at points of touch:
  - High responsiveness as indicated by 90% first call resolution (call centre)
  - 93% customer satisfaction (top 3 box score on a 10 point scale) with experience when utility service reps visit homes



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# IT Major Projects Update

Mike Packer

*Director, Information Systems*

# ConTrax Modernization Overview

- In the 2013 Cost of Service proceeding Union identified that capital investment would be made to modernize ConTrax
- ConTrax is a 20 year old system that supports Union's contract to cash processes for C/I, direct purchase and S&T customers
- ConTrax supports complex business process. It interfaces with several key systems such as retail CIS (Banner), gas management (CARE), gas measurement (GMAS), SAP and the web-based customer portal (Unionline)
- It is used to bill over \$400 million annually
- Although well architected at its inception, the system has not kept pace with technology
- Significant enhancements, almost every year have prevented modernizing the system gradually
- The existing system has become increasingly unstable and has reached a point where the risk profile is no longer acceptable
- Status quo was not an option. A system failure would significantly impact Union's reputation, customer satisfaction, regulatory compliance and operating costs

# ConTrax Modernization Options

- During 2012/2013 with the assistance of consultants (Five Point Partners and Gartner) it was determined that:
  - There was little value and significant risk associated with trying to combine our retail (Banner) and wholesale (ConTrax) billing systems
  - No off-the-shelf product could meet our business requirements (including compliance with the Board's Gas Distribution Access Rule) without significant customization
  - An in-house system was the preferred solution
  - Several off-the-shelf tools (e.g. BRE and BPMS) could be used to reduce the amount of custom design/coding required to modernize the system

# ConTrax Modernization Status

- Project to modernize ConTrax was approved in July 2014
- Tata Consulting Services (TCS) and PwC were selected through RFPs to assist with the project
  - Started working on the project in July/August 2014
- First phase of the work was completed in February 2015 (approximately 13% of project cost)
  - Validated selected technology solutions
  - Confirmed business requirements and project scope
  - Created project plan for the second phase of work (design, build and implementation)
- Total estimated cost \$49.7 million with contingency. Remaining duration 2.5 years

# ConTrax Modernization Resourcing & Timeline

- 26 full time Union Gas employees are on the project team (11 business/15 IS)
- A combination of on and off-shore labour is being used by TCS
- Steering committee is comprised of senior mgmt
- The project will be implemented in waves
  - Wave 1 (mid 2016)      Architecture and South Distribution
  - Wave 2 (early 2017)      Remaining Distribution and Direct Purchase
  - Wave 3 (mid 2017)      S&T



# ConTrax Modernization Benefits

- Lowers business risk
- Improves ConTrax system performance, reliability and flexibility
- Eliminates the need to correct data which occurs frequently
- Business processes will no longer require IS resources to complete (including invoicing)
- Easier to complete routine technical upgrades (i.e. databases)
- Easier to attract, retain and train support staff

# EAMagine Project Overview

- In the 2013 Cost of Service proceeding Union identified that capital investment would be made on a comprehensive Enterprise Asset Management solution (EAM)
- EAMagine is a project to implement an asset management system for above-ground assets and transmission pipelines
- The Plant Maintenance module of SAP will be integrated with Union's existing SAP modules
- Project approved in Oct 2013/implemented in March and April 2015
- Budget: \$17.9 million (expected to \$3.5 million under budget)
- PwC hired through an RFP to be the Solution Provider
- Introduces planning and dispatch to Storage and Transmission Operations and workload distribution support to Distribution Operations Technician groups
- Provides 165 field workers with the ability to receive work and record plant maintenance data using mobile devices
- Creates the foundation for asset-based Business Intelligence

# EAMagine Project Benefits

- Improves access to higher quality data
  - Is a proactive response to Regulatory concerns
  - Minimizes the impact of aging infrastructure and reduces the risk of critical incidents
  - Improves strategic planning and decision making that will maximize asset value
- Facilitates predictive, reliable and risk-based maintenance
- Will allow asset spend to be optimized (IRR 7.5%)
  - O&M reduction: \$1.6 million annually
  - Capital reduction: \$2 million annually, \$1 million one-time
- Allows Union to capture critical institutional asset knowledge before employees retire
- Replaces aging/end of life systems (Mapcon and MISOS)

# Data Centre Consolidation Overview

- During 2015 Union will be consolidating its two existing data centres (in Chatham and at Dawn) with new data centres that will be contracted for by Spectra in Lebanon, Ohio and Carrollton (Dallas), Texas
- For a number of years Union has been looking for a solution that will reduce our risk and improve the reliability, scalability and security of our data centres
- Chatham (primary):
  - Located at Head Office: Owned – 3,200 sq. ft.
  - Space is underutilized and trending downward (50% reduction in last 15 years)
  - Storage and server growth has averaged 20% per year for the last 3 years
  - Investment would be needed to maintain current service levels
  - Location not ideal due to potential of the Thames River flooding
- Dawn (back-up):
  - Located at compressor station: Owned – 1,200 sq. ft.
  - Space is significantly constrained

# Data Centre Consolidation Overview Cont'd

- Majority of Fortune 500 companies either co-locate\* or outsource data centre functions
  - Recognize operating a data centre is not their core competency
  - Data centre technologies are evolving rapidly. The power intensity is increasing – the equipment is getting smaller but uses more power (data centres require constant temperature and humidity for the safety of the equipment)
  - To improve redundancy, reliability and flexibility
  - To reduce the risk of natural disasters
  - To control escalating costs
- Consistent with industry trends Union would prefer to co-locate rather than own its data centres
- Consolidating data centre requirements with Spectra provides economies of scale and scope
- Co-locate space will be rented from CyrusOne
- Union will pay for using its share of converged server and storage infrastructure owned by Spectra
- The cost of managed services for server installs, monitoring and back-ups (HCL) and telecom services (Verizon, AT&T and Sprint) will be split based on usage
- No material cost impact after implementation costs are amortized
- Implementation cost amortization is estimated to be \$1.5 million annually for 5 years

\*Co-locate: Where a vendor provides the building, cooling, power and physical security while the customer provides servers, storage and bandwidth

# Data Centre Consolidation Benefits

- Lowers operating risk - significantly improves redundancy (power and network), HVAC (cooling), reliability, and security
- Scalable - accommodates business/data growth and trends in technology (i.e. cloud)
- Economies of scale and scope
  - Facilitates greater infrastructure process improvement and standardization of methodologies/controls
  - Servers and storage will be installed quicker
  - Allows for more effective back-up of data centre resources
  - Creates “critical mass” to implement state-of-the art converged server and storage technology
  - Provides potential for “Hot” Disaster Recovery site
- Avoids required upgrades at existing data centres to floor, cooling, network, internet and telecom
- Allows office space to be repurposed



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# Future Regulatory Applications & Wrap-up

Mark Kitchen  
*Director, Regulatory Affairs*

# Future Regulatory Applications

- Potential Expansion Projects
  - Panhandle/Windsor
  - Owen Sound Line
  - Sudbury
- Allowance for Funds Used During Construction (“AFUDC”)





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