

July 26, 2013

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
Suite 2700, 2300 Yonge Street  
Toronto, Ontario  
M4P 1E4

Dear Ms. Walli:

**RE: Union Gas Limited ("Union") – EB-2013-0109 - 2012 Earnings Sharing and Disposition of Deferral Accounts and Other Balances – evidence addendum and schedule corrections**

Please find attached Union's evidence addendum regarding Deferral Account No. 179-129 for the Preparation of Audited Statements for Regulated Utility Operations. In Union's 2013 Cost of Service Proceeding (EB-2011-0210), the Board directed Union to prepare and file separate audited statements for that portion of the business that is subject to rate regulation, and capture the costs of preparing these statements in a deferral account.

The attached evidence addendum provides an updated estimate of the cost required to prepare these financial statements and respond to the Board's directive. Union's estimate is \$1.3 million. The balance in the deferral account as of December 31, 2013 will be submitted for recovery from ratepayers as part of Union's 2013 deferral disposition proceeding.

Also attached are revised schedules referred to in Union's interrogatory responses on July 24, 2013. These include:

- Exhibit A Tab 4 Schedules 1 -4 as corrected through Exhibit D8.11
- Exhibit A Tab 1 Schedule 5 corrected to remove (\$000's) units in the Particulars column title, as flagged in Exhibit D6.1.

Copies are attached and a copy of the evidence with the revisions incorporated has been filed in RESS for ease of reference.

In the event that you have any questions on the above or would like to discuss in more detail, please do not hesitate to contact me at 519-436-5473.

Yours truly,

*[original signed by]*

Karen Hockin  
Manager, Regulatory Initiatives

cc: Munir Madhavji, OEB  
Crawford Smith, Torys  
Vanessa Innis  
Mark Kitchen

1    **AUDITED FINANCIAL STATEMENTS FOR REGULATED UTILITY OPERATION**

2    In its decision in EB-2011-0210, the Board directed Union to prepare and file separate audited  
3    financial statements for that portion of its business that is subject to rate regulation:  
4

5    *“The Board directs Union to prepare and file separate audited financial statements for that*  
6    *portion of its business that is subject to rate regulation. For the utility business regulated by the*  
7    *Board, the Board directs Union to provide annually a full set of audited financial statements,*  
8    *with all related notes to these financial statements, prepared under the applicable generally*  
9    *accepted accounting principles used to report to financial regulators in Canada and in the USA.*  
10   *These audited financial statements will be filed with the Board as soon as possible after Union*  
11   *releases its financial results to the public, but no later than June 30th each year. The Board*  
12   *believes that this information will assist in both assessing the revenue requirements in future cost*  
13   *of service proceedings, and in monitoring during the course of the IRM term.”*  
14

15   The purpose of this evidence is to provide an updated estimate of the cost required to prepare  
16   these financial statements and respond to the directive. Union’s estimate is \$1.3 million, with the  
17   amount to be charged to deferral account 179-129 Preparation of Audited Financial Statements  
18   during 2013. The estimate is an update to the estimate of \$400,000 in EB-2011-0210 to account  
19   for analysis undertaken by Union and Ernst & Young, discussed below, subsequent to the  
20   hearing of that case. Given the change in estimate Union determined that the Board and  
21   intervenors should be advised of the new estimate prior to work being conducted.  
22

1 The balance in the account as of December 31, 2013 will be submitted for recovery from  
2 ratepayers as part of Union's 2013 deferral disposition proceeding. Union will allocate the  
3 balance in the Preparation of Audited Financial Statements deferral account to rate classes in  
4 proportion to the allocation of similar costs in Board-approved rates. While Union has not  
5 finalized the appropriate allocation methodology at this time, Union expects to allocate the  
6 deferral account balance in proportion to the 2013 Board-approved allocation of Administrative  
7 and General O&M Expenses. This allocation methodology would result in approximately 70%  
8 of the Preparation of Audited Financial Statements deferral account balance being recovered  
9 from the Rate 01 and Rate M1 rate classes. Union will propose an allocation methodology as  
10 part of its 2013 deferral account disposition proceeding in 2014.

11  
12 As part of the Natural Gas Electricity Interface Review (NGEIR EB-2005-0551), the Board  
13 determined that the market for Union's ex-franchise storage services was a competitive market  
14 and that Union Gas Limited would no longer be subject to rate regulation for those services. A  
15 key element of the Board's decision was that Union was not required to functionally separate its  
16 regulated and unregulated storage operations because it would be costly and difficult to establish  
17 a functional separation of utility and non-utility storage, and there was no evidence to suggest  
18 that there would be significant benefits from such a separation. The Board concluded that  
19 Union's 2007 cost allocation study was adequate for the purposes of separating the regulated and  
20 unregulated costs and revenues for ratemaking purposes. As a result, Union implemented a  
21 comprehensive accounting and cost allocation process to identify and separate costs between

1 regulated and unregulated storage operations within the existing integrated operation. KPMG  
2 was retained to assist Union with the implementation.

3  
4 During 2007 to 2012, Union filed a schedule annually showing the adjustments to Union's  
5 income statement for the revenues and costs related to the non-utility storage operations and  
6 other adjustments to arrive at utility income for earnings sharing purposes.

7  
8 In 2010, as a result of the Settlement Agreement in EB-2010-0039, Union retained Black &  
9 Veatch to provide an independent review and evaluation of Union's cost allocation and  
10 accounting processes for its unregulated and regulated underground storage operations and make  
11 recommendations on any changes to the underlying assumptions and/or methodologies.

12  
13 The Black & Veatch review, filed in EB-2011-0038 stated the following, "to implement a  
14 separation model for Union's regulated and unregulated storage operations, there are three  
15 options available to Union: (1) a functional separation, (2) an accounting separation; or (3) an  
16 asset divestiture. The Board at the time found that the functional separation of Union's storage  
17 assets was not necessary, nor was an asset divestiture a desired alternative in light of Union's  
18 integrated operations. Therefore, implementation of an accounting separation process was the  
19 only viable alternative to consider. The adoption of that approach, however, created the need for  
20 a comprehensive set of cost allocation methods to be applied to Union's storage assets, direct

1 expenses, and other indirect costs.”

2  
3 The Board found in EB-2011-0038 that the non-utility storage allocation factor utilized by Union  
4 is in accordance with the NGEIR decision. The Board also noted that the fundamental premise  
5 upon which the non-utility storage allocation factor was developed is appropriate and Union’s  
6 cost allocation methodology was formulated in a manner which reflects how particular systems  
7 were designed when they were built and assigns the costs on that basis.

8  
9 In response to the Board’s directive in EB-2011-0210, Union retained Black & Veatch to update  
10 the study filed in EB-2011-0038 to be filed as part of the 2014 rates filing. The implementation  
11 of cost allocations and accounting processes as well as the independent consultant reviews  
12 conducted to date has focused entirely on revenues and costs that are required for the calculation  
13 of the utility revenue requirement.

14  
15 The Board’s decision directing Union to prepare and file separate audited financial statements  
16 for the portion of the business subject to rate regulation, will require Union to undertake the  
17 implementation of a further accounting separation process to divide the remaining components of  
18 the balance sheet and income statement not included in the work performed by KPMG and Black  
19 & Veatch. In order for this to be accomplished, Union retained Ernst & Young, at a cost of  
20 approximately \$150,000 to assist in mapping out the plan necessary to separate the remaining  
21 components of the unregulated operations not associated with the annual revenue requirement or

earnings sharing calculation, and the process required to generate a full set of audited financial statements, with all related notes for regulated business.

Please see Addendum Appendix A for the report prepared by Ernst & Young outlining the background, project objectives and scope, project approach, and estimated level of effort and project costs necessary in order to accomplish the Board's directive.

The following table outlines the estimate of additional costs associated with the project to be captured in account 179-129, "Preparation of Audited Utility Financial Statements" for recovery.

Table 1

<u>Implementation Costs (000's)</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Ernst & Young Project Plan	150	N/A	N/A
External/Incremental Support	1014	N/A	N/A
<u>Ongoing Costs (000's)</u>			
Addition to internal staffing	N/A	15	15
Audit Fees	100	65	65

During the implementation of the project external project resources will be used to assist with project management, development and implementation of methodology. The opportunity cost of

1 internal staffing consumed by the project at fully-loaded labour rates will be approximately  
2 \$550,000 spread across 24 departments.

3  
4 As part of the implementation project plan Union will be developing a long-term IT solution.  
5 The implementation of this IT solution is expected to occur during 2014-2016. Union is not  
6 currently anticipating any additional system related costs, but should costs arise in the future  
7 Union proposes to capture those in the above mentioned deferral account.

8  
9 Having regard to the fact that the work being undertaken is due to a Board directive, it is Union's  
10 expectation that it will recover all of the costs and it should not be at risk for the recovery.

11



# Union Gas Limited

Regulated Financial Statement  
Preparation Report 2013

July 23, 2013



Building a better  
working world

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This report has been prepared to assist Union Gas Limited. Our report has not considered issues relevant to third parties. Any use a third party may choose to make of this report is entirely at its own risk.

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Filed: 2013-07-26  
EB-2013-0109  
Exhibit A  
Tab 1  
Appendix A  
ADDENDUM

## **Private and confidential**

Union Gas Limited  
50 Keil Drive North  
P.O. Box 2001  
Chatham ON, N7M 5M1  
Canada

July 23, 2013

## **Re: Regulated Operations Carve Out Assessment**

Dear Ms. Elliott,

We have attached an electronic copy of our draft report for the Regulated Operations Carve Out Assessment. Our engagement was performed in accordance with our statement of work dated April 15, 2013, and our procedures were limited to those described in the statement of work.

Our work was conducted during the period May 6, 2013 to June 28, 2013. The summary report resulting from our work is attached.

As outlined in our statement of work, our report to you is based on review of the OEB orders, inquiry and discussion with various process owners, and a review of the applicable business process to develop this assessment.

As this is not an assurance engagement, we provide no opinion, attestation or other form of assurance with respect to our work or the information upon which our work is based. The procedures we performed do not constitute an examination or a review in accordance with generally accepted auditing standards or attestation standards. We have not audited or otherwise verified the information supplied to us in connection with this engagement.

Future events are inherently unpredictable. It is not possible to predict future events or anticipate all potential circumstances. As such, actual results achieved for the forecast periods covered in this document may vary.

We appreciate the cooperation and assistance provided to us during the course of our work.

Very truly yours,

**Andrew Grainger**  
Partner\*

\* Andrew Grainger is a Limited Partner of Ernst & Young L.P. which provides services to Ernst & Young LLP

## Background

In November of 2006 the Ontario Energy Board (“OEB” or Board) issued its Natural Gas Electricity Interface Review (NGEIR) decision which concluded that the market for Union Gas Limited (UGL or Union) ex-franchise storage services was a competitive market and that UGL would no longer be subject to rate regulation for those services. In the Board’s findings it concluded that there was no need to functionally separate its regulated and unregulated storage operations, but that a rigorous revenue and cost allocation process be put in place to ensure there would be no cross-subsidization between regulated and unregulated storage.

On October 24, 2012, the Board ordered UGL to provide separate audited financial statements for its regulated business and unregulated businesses by June 30, 2014.

Board Decision (October 24, 2012)

“The Board directs Union to prepare and file separate audited financial statements for that portion of its business that is subject to rate regulation. For the utility business regulated by the Board, the Board directs Union to provide annually a full set of audited financial statements, with all related notes to these financial statements, prepared under the applicable generally accepted accounting principles used to report to financial regulators in Canada and in the USA. These audited financial statements will be filed with the Board as soon as possible after Union releases its financial results to the public, but no later than June 30th each year.”

UGL currently prepares consolidated statements under US GAAP that reflects both regulated and unregulated business operations. UGL currently has an OSC exemption to file under US GAAP as UGL’s ultimate parent, Spectra Energy, is US based.

## **Project objectives and scope**

### **Objectives**

This report is intended to provide an overview of the work that will be required by UGL in order to comply with the Board's order to prepare a complete set of financial statements that represent the Regulated portion of UGL's business, including the development of the appropriate methodology, tools and documentation to prepare these statements on an ongoing basis.

### **Scope assumptions**

The first set of audited financial statements required will be for the 2013 fiscal year operations and are required to be filed with the Board by June 30, 2014.

UGL will then be required to continue filing audited statements for the regulated portion of their business on an annual basis due each year by June 30<sup>th</sup>.

The statements to be prepared will include:

- ▶ Balance Sheet, Income Statement, Retained Earnings, Cash Flows, & Notes.
- ▶ These will be prepared using US GAAP following the same structure used in UGL's consolidated financial statements.

The work required to create these financial statements will include:

- ▶ Building the methodology for identifying and recording the Regulated portion for each of the accounts in the financial statements on an ongoing basis;
- ▶ Identification of the steps to be taken to complete the 2013 statements, including any manual work-around activities required in the absence of automation;
- ▶ Identification of the approach and system requirements to support ongoing preparation of Regulated financial statements;
- ▶ Development of business requirements to automate the Regulated financial statement preparation, and estimating the effort required to conduct the automation;
- ▶ Working with the external auditors through their audit planning and audit execution;
- ▶ Preparing any preliminary calculations or balances required to prepare the financial statements; and
- ▶ Estimate and execute the IT activities required to automate the preparation of Regulated financial statements in a similar manner to the current overall UGL statements.

## Project Approach

We have completed our review of the existing process for creating the consolidated financial statements and have assisted you in developing an initial assessment of the scope and required effort to 'carve out' financial statements for the regulated portion of your business.

Specific activities completed include:

- ▶ Review of regulator orders and relevant reports
- ▶ Review of operating model and structure
- ▶ Review of current allocation methodology and scope of unregulated business
- ▶ Map of high level processes to regulated/ unregulated businesses
- ▶ Initial review of operational requirements completed for:
  - ▶ Process scope
  - ▶ Organizational scope
  - ▶ Technology Scope
  - ▶ Financial and accounts
- ▶ Drafted a design phase plan and cost estimate – outlined below

It is important to note the preparation of FY2013 Regulated statements will be highly manual as compared to FY2014 Regulated statements and beyond when more automation will be in place.

The project will be broken into four phases which include the following:

### Phase 1 – Methodology Development:

- ▶ Development of the methodology and approach to be taken in separating each of the line items in the financial statements and the accompanying notes.
- ▶ Testing and validating the methodology.
- ▶ Identifying the long term intended systems and processes required to prepare the statements on an annual basis.
- ▶ Identifying any 'work-around' activities required to prepare the first set of statements for the Regulated business. As noted above, some automation may not be available in time to prepare the 2013 audited financial statements and will be in place for the preparation of 2014 statements and beyond.
- ▶ Working with UGL's external auditors to plan for the 2013 audit and the impact of the new regulated statements.

### Phase 2 – Advance Preparation:

- ▶ Implementing any system changes that are feasible prior to the year end, required to support the agreed methodology.
- ▶ Providing knowledge transfer to UGL staff.
- ▶ Conducting any preparatory activities in advance of the year end. Examples include:
  - ▶ Calculating opening balances for 2013.
  - ▶ Preparing any analytical tools or spreadsheets in advance of year end.

Phase 3 – Statement Preparation:

- ▶ Preparation of the draft and final audited statements and supporting notes for the Regulated business.
- ▶ Working with UGL’s external auditors to explain the methodology and data sources.

Phase 4 – IT Automation:

- ▶ Implementing any system changes required, to support the agreed long-term methodology for preparing Regulated financial statements. This work is to be completed in 2014.
- ▶ Business requirements for automation will be identified, collected and validated by the project IT lead through phases 1 and 2.

## Estimated level of effort and project costs

In summary, based on our review of the existing processes and identification of work required, we estimate the total combined level of effort required to complete this project to be in the range of 8,000 – 10,000 hours. This estimate includes a combination of internal and external resources, including specialist resources where required.

The following chart outlines an overview of the estimated resource costs

Cost Type	Cost
Internal Resources	\$ 552,928
External/ Incremental* Support	\$1,114,002
<b>Total</b>	<b>\$1,666,930</b>

\* Incremental support represents an estimate for UGL employee overtime costs (~\$62,272).

### Assumptions:

- ▶ All required accounts have been captured within a set of 16 work streams and a work stream lead has been identified for each.
- ▶ A Program Management Office structure will be used to leverage resources across work streams including – Project Leadership, Project Management, and IT.
- ▶ The PMO will coordinate across work streams and consolidate plans and status.
- ▶ Integration of work streams will leverage regular project review sessions.
- ▶ A full time IT Finance resource will be assigned to the project and coordinate other additional IT resources as required.
- ▶ The project leadership and work stream leads will form a Core Team and will not require a separate Steering Committee structure.
- ▶ Plans for subsequent phases will be reviewed at the end of each phase.
- ▶ The final two weeks of phase 3 will be used for Lessons Learned and planning for 2014 statements.

## Schedule 1 2012-2016 Transportation Contracting Analysis

Route (A)	Point of Supply (B)	Basis Differential \$/US/mmBtu (C)	Supply Cost \$/US/mmBtu (D) = Nymex + C	Unitized Demand Charge \$/US/mmBtu (E)	Commodity Charge \$/US/mmBtu (F)	Fuel Charge \$/US/mmBtu (G)	100% LF Transportation Inclusive of Fuel \$/US/mmBtu (I) = E + F + G	Landed Cost \$/US/mmBtu (J) = D + I	Landed Cost \$/CDN/GJ (K)	Point of Delivery (L)
Trunkline/Panhandle	Trunkline Field Zone 1A	-0.039	4.2431	0.1900	0.0248	0.1587	0.3735	\$4.62	\$ 4.36	Ojibway
* Vector	Chicago	0.185	4.4674	0.2500	0.0018	0.0487	0.3005	\$4.77	\$ 4.50	Dawn
Dawn	Dawn	0.542	4.8247	0.0000	0.0000	0.0000	0.0000	\$4.82	\$ 4.56	Dawn
Panhandle Longhaul	Panhandle Field Zone	-0.141	4.1414	0.4251	0.0441	0.2174	0.6866	\$4.83	\$ 4.56	Ojibway
TCPL Niagara	Niagara	0.546	4.8291	0.1337	0.0000	0.0000	0.1337	\$4.96	\$ 4.69	Kirkwall
Alliance/Vector	CREC	-0.564	3.7189	1.7275	-0.2875	0.2116	1.6517	\$5.37	\$ 5.07	Dawn
TCPL SWDA (1)	Empress	-0.350	3.9328	1.8752	0.1284	0.0661	2.0696	\$6.00	\$ 5.67	Dawn

(1) For reference only

Assumptions used in Developing Long-term Transportation Contracting Analysis:

Annual Gas Supply & Fuel Ratio Forecasts	Point of Supply Col (B) above	Dec 2012 - Nov 2013 \$/US/mmBtu	Dec 2013 - Nov 2014 \$/US/mmBtu	Dec 2014 - Nov 2015 \$/US/mmBtu	Dec 2015 - Nov 2016 \$/US/mmBtu	Average Annual Gas Supply Cost \$/US/mmBtu	Fuel Ratio Forecasts Col (G) above
Henry Hub (NYMEX) \$/US/mmBtu		\$4.26	\$4.16	\$4.30	\$4.41	\$4.28	
Trunkline/Panhandle	Trunkline Field Zone 1A	\$4.23	\$4.12	\$4.26	\$4.37	\$4.24	3.74%
* Vector	Chicago	\$4.41	\$4.34	\$4.51	\$4.61	\$4.47	1.09%
Dawn	Dawn	\$4.77	\$4.70	\$4.87	\$4.96	\$4.82	N/A
Panhandle Longhaul	Panhandle Field Zone	\$4.13	\$4.01	\$4.16	\$4.26	\$4.14	5.25%
TCPL Niagara	Niagara	\$4.78	\$4.70	\$4.87	\$4.97	\$4.83	0.00%
Alliance/Vector	CREC	\$3.71	\$3.59	\$3.75	\$3.82	\$3.72	5.69%
TCPL SWDA	Empress	\$3.91	\$3.80	\$3.97	\$4.06	\$3.93	1.68%

### Sources for Assumptions:

Gas Supply Prices (Col D):	ICF International Q4 2012 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 (TCPL 2012 Approved Interim Tolls)		
Foreign Exchange (Col K)	\$1 US =	\$0.997 CDN	Bank of Canada Closing Rate - Nov 1, 2012
Energy Conversions (Col K)	1 dth = 1 mmBtu =	1.055056	
Union's Analysis Completed:	Nov-12		

\* Indicates path referenced for this analysis



## Schedule 2

### 2012-2013 Transportation Contracting Analysis

<u>Route</u> (A)	<u>Point of Supply</u> (B)	<u>Basis Differential</u> \$US/mmBtu (C)	<u>Supply Cost</u> \$US/mmBtu (D) = Nymex + C	<u>Unitized Demand Charge</u> \$US/mmBtu (E)	<u>Commodity Charge</u> \$US/mmBtu (F)	<u>Fuel Charge</u> \$US/mmBtu (G)	<u>100% LF Transportation Inclusive of Fuel</u> \$US/mmBtu (I) = E + F + G	<u>Landed Cost</u> \$US/mmBtu (J) = D + I	<u>Landed Cost</u> \$Cdn/GJ (K)	<u>Point of Delivery</u> (L)
Dawn	Dawn	0.245	3.9160	0.0000	0.0000	0.0000	0.0000	\$3.92	\$ 3.72	Dawn
* PEPL (2012-2013)	Panhandle Field Zone	-0.175	3.4960	0.2249	0.0441	0.1940	0.4630	\$3.96	\$ 3.76	Ojibway
* Vector (2012-2013)	Chicago	0.084	3.7542	0.1800	0.0018	0.0420	0.2238	\$3.98	\$ 3.78	Dawn
Trunkline/Panhandle	Trunkline Field Zone 1A	-0.040	3.6308	0.1900	0.0248	0.1391	0.3538	\$3.98	\$ 3.79	Ojibway
Vector	Chicago	0.084	3.7542	0.2500	0.0018	0.0420	0.2938	\$4.05	\$ 3.85	Dawn
TCPL Niagara	Niagara	0.266	3.9369	0.1329	0.0000	0.0000	0.1329	\$4.07	\$ 3.87	Kirkwall
Panhandle Longhaul	Panhandle Field Zone	-0.175	3.4960	0.4251	0.0441	0.1940	0.6632	\$4.16	\$ 3.95	Ojibway
Alliance/Vector	CREC	-0.400	3.2704	1.7275	-0.2875	0.1874	1.6275	\$4.90	\$ 4.66	Dawn
TCPL SWDA (1)	Empress	-0.520	3.1503	1.8638	0.1276	0.0539	2.0453	\$5.20	\$ 4.94	Dawn

(1) For reference only

#### Sources for Assumptions:

Gas Supply Prices (Col D): ICE Settlement Data; July 31, 2012

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 (TCPL 2012 Approved Interim Tolls)

Foreign Exchange (Col K) \$1 US = \$1.003 CDN From Bank of Canada Closing Rate July 31, 2012

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

Union's Analysis Completed: Aug-12

\* Indicates path referenced in evidence for this analysis

### Schedule 3 2012-2017 Transportation Contracting Analysis

Route (A)	Point of Supply (B)	Basis Differential \$US/mmBtu (C)	Supply Cost \$US/mmBtu (D) = Nymex + C	Unitized Demand Charge \$US/mmBtu (E)	Commodity Charge \$US/mmBtu (F)	Fuel Charge \$US/mmBtu (G)	100% LF Transportation Inclusive of Fuel \$US/mmBtu (I) = E + F + G	Landed Cost \$US/mmBtu (J) = D + I	Landed Cost \$Cdn/GJ (K)	Point of Delivery (L)
Trunkline/Panhandle	Trunkline Field Zone 1A	-0.038	4.7416	0.1900	0.0248	0.1816	0.3964	\$5.14	<b>\$4.88</b>	Ojibway
* PEPL (2012-2017)	Panhandle Field Zone	-0.217	4.5624	0.3200	0.0441	0.2532	0.6173	\$5.18	<b>\$4.92</b>	Ojibway
Vector	Chicago	0.143	4.9218	0.2500	0.0018	0.0551	0.3069	\$5.23	<b>\$4.97</b>	Dawn
Dawn	Dawn	0.506	5.2855	0.0000	0.0000	0.0000	0.0000	\$5.29	<b>\$5.02</b>	Dawn
Panhandle Longhaul	Panhandle Field Zone	-0.217	4.5624	0.4251	0.0441	0.2532	0.7224	\$5.28	<b>\$5.02</b>	Ojibway
TCPL Niagara	Niagara	0.518	5.2969	0.1329	0.0000	0.0000	0.1329	\$5.43	<b>\$5.16</b>	Kirkwall
Alliance/Vector	CREC	-0.618	4.1608	1.7275	-0.2875	0.2384	1.6785	\$5.84	<b>\$5.55</b>	Dawn
TCPL SWDA (1)	Empress	-0.407	4.3718	1.8638	0.1276	0.0748	2.0661	\$6.44	<b>\$6.12</b>	Dawn

(1) For reference only

Assumptions used in Deveoping Long-term Transportation Contracting Analysis:

Annual Gas Supply & Fuel Ratio Forecasts	Point of Supply Col (B) above	Nov 2012 - Oct 2013 \$US/mmBtu	Nov 2013 - Oct 2014 \$US/mmBtu	Nov 2014 - Oct 2015 \$US/mmBtu	Nov 2015 - Oct 2016 \$US/mmBtu	Nov 2016 - Oct 2017 \$US/mmBtu	Average Annual Gas Supply Cost \$US/mmBtu Col (D) above	Fuel Ratio Forecasts Col (G) above
Henry Hub (NYMEX)		\$4.01	\$4.30	\$4.43	\$4.91	\$6.25	\$4.78	
Trunkline/Panhandle	Trunkline Field Zone 1A	\$3.98	\$4.27	\$4.40	\$4.87	\$6.20	\$4.74	3.83%
* PEPL	Panhandle Field Zone	\$3.82	\$4.12	\$4.25	\$4.67	\$5.95	\$4.56	5.55%
Vector	Chicago	\$4.12	\$4.45	\$4.59	\$5.05	\$6.39	\$4.92	1.12%
Dawn	Dawn	\$4.46	\$4.82	\$4.97	\$5.41	\$6.76	\$5.29	N/A
Panhandle Longhaul	Panhandle Field Zone	\$3.82	\$4.12	\$4.25	\$4.67	\$5.95	\$4.56	5.55%
TCPL Niagara	Niagara	\$4.47	\$4.83	\$4.98	\$5.43	\$6.78	\$5.30	0.00%
Alliance/Vector	CREC	\$3.41	\$3.70	\$3.84	\$4.27	\$5.58	\$4.16	5.73%
TCPL SWDA	Empress	\$3.60	\$3.91	\$4.05	\$4.49	\$5.82	\$4.37	1.71%

**Sources for Assumptions:**

Gas Supply Prices (Col D): ICF International Q3 2012 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 (TCPL 2012 Approved Interim Tolls)

Foreign Exchange (Col K) \$1 US = \$1.003 CDN From Bank of Canada Closing Rate July 31, 2012

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

Union's Analysis Completed: Aug-12

\* indicates path referenced in evidence for this analysis

**Schedule 4  
2012-2017 Transportation Contracting Analysis**

Route (A)	Point of Supply (B)	Basis Differential \$US/mmBtu (C)	Supply Cost \$US/mmBtu (D) = Nymex + C	Unitized Demand Charge \$US/mmBtu (E)	Commodity Charge \$US/mmBtu (F)	Fuel Charge \$US/mmBtu (G)	100% LF Transportation Inclusive of Fuel \$US/mmBtu (I) = E + F + G	Landed Cost \$US/mmBtu (J) = D + I	Landed Cost \$Cdn/GJ (K)	Point of Delivery (L)
<b>Vector</b>	Chicago	0.052	5.8863	0.2500	0.0019	0.0712	0.3231	\$6.21	\$ 5.66	Dawn
* <b>Panhandle Longhaul</b>	Panhandle Field Zone	-0.349	5.4854	0.4251	0.0442	0.3203	0.7896	\$6.28	\$ 5.72	Ojibway
<b>Trunkline/Panhandle</b>	Trunkline Field Zone	0.049	5.8841	0.1926	0.0274	0.2507	0.4707	\$6.35	\$ 5.79	Ojibway
<b>Dawn</b>	Dawn	0.675	6.5101	0.0000	0.0000	0.0000	0.0000	\$6.51	\$ 5.94	Dawn
<b>Alliance/Vector</b>	CREC	-0.973	4.8615	1.6991	-0.2875	0.2825	1.6941	\$6.56	\$ 5.98	Dawn
<b>TCPL Niagara</b>	Niagara	0.757	6.5922	0.1386	0.0000	0.0000	0.1386	\$6.73	\$ 6.14	Kirkwall
<b>TCPL SWDA (1)</b>	Empress	-0.859	4.9754	1.9430	0.1330	0.1209	2.1970	\$7.17	\$ 6.54	Dawn

(1) For reference only

**Assumptions used in Developing Long-term Transportation Contracting Analysis:**

Annual Gas Supply & Fuel Ratio Forecasts	Point of Supply Col (B) above	Nov 2012 - Oct 2013 \$US/mmBtu	Nov 2013 - Oct 2014 \$US/mmBtu	Nov 2014 - Oct 2015 \$US/mmBtu	Nov 2015 - Oct 2016 \$US/mmBtu	Nov 2016 - Oct 2017 \$US/mmBtu	Average Annual Gas Supply Cost \$US/mmBtu	Fuel Ratio Forecasts Col (G) above
<b>Henry Hub (NYMEX) \$US/mmBtu</b>		\$5.11	\$5.65	\$6.07	\$5.94	\$6.40	\$5.83	
<b>Vector</b>	Chicago	\$5.18	\$5.69	\$6.12	\$6.00	\$6.44	\$5.89	1.21%
* <b>Panhandle Longhaul</b>	Panhandle Field Zone	\$4.80	\$5.33	\$5.74	\$5.58	\$5.98	\$5.49	5.84%
<b>Trunkline/Panhandle</b>	Trunkline Field Zone	\$5.14	\$5.69	\$6.12	\$6.00	\$6.46	\$5.88	4.26%
<b>Dawn</b>	Dawn	\$5.77	\$6.26	\$6.77	\$6.65	\$7.10	\$6.51	N/A
<b>Alliance/Vector</b>	CREC	\$4.13	\$4.64	\$5.11	\$5.02	\$5.41	\$4.86	5.81%
<b>TCPL Niagara</b>	Niagara	\$5.85	\$6.35	\$6.85	\$6.72	\$7.19	\$6.59	0.00%
<b>TCPL SWDA</b>	Empress	\$4.23	\$4.75	\$5.23	\$5.14	\$5.53	\$4.98	2.43%

**Sources for Assumptions:**

Gas Supply Prices (Cols C & D): ICF International; April 2011  
Transportation Tolls (Cols E & F): Tolls in effect on Alternative Routes at the time of Union's Analysis (TCPL March 2011 Approved Interim Tolls)  
Fuel Ratios (Col G): Average ratio over the previous 12 months or Pipeline Forecast  
Foreign Exchange (Col K) \$1 US = \$0.962 CDN  
Energy Conversions (Col K) 1 dth = 1 mmBtu = 1.055056  
Union's Analysis Completed: May-11

\* Indicates path referenced in evidence for this analysis

UNION GAS LIMITED  
Demand Side Management Variance Account

Line No.	Particulars (\$)	2012			
		DSM Costs in 2012			
		Rates <sup>(1)</sup>	Actual DSM Costs <sup>(2)</sup>	Account Balance	Variance
		(a)	(b)	(c) = (b) - (a)	
	<u>South</u>				
1	M1	10,223,670	9,928,224	(295,446)	-2.9%
2	M2	3,811,036	3,740,320	(70,715)	-1.9%
3	M4	1,572,104	2,708,435	1,136,331	72.3%
4	M5	2,624,378	2,089,944	(534,434)	-20.4%
5	M7	885,953	453,765	(432,188)	-48.8%
6	T1	4,313,703	4,758,916	445,213	10.3%
7		<u>23,430,843</u>	<u>23,679,604</u>	<u>248,760.39</u>	<u>1.1%</u>
	<u>North</u>				
8	Rate 01	3,650,512	3,016,785	(633,726)	-17.4%
9	Rate 10	1,160,460	1,516,814	356,354	30.7%
10	Rate 20	953,332	1,326,339	373,007	39.1%
11	Rate 100	1,758,951	1,782,675	23,724	1.3%
12		<u>7,523,254</u>	<u>7,642,613</u>	<u>119,358.91</u>	<u>1.6%</u>
13	Total	<u>30,954,097</u>	<u>31,322,217</u>	<u>368,119</u>	<u>1.2%</u>

Notes:

- (1) Based on Revised settled DSM budgets included in Settlement Agreement EB-2011-0327 filed January 31, 2012.
- (2) Allocated as per the Settlement Agreement filed January 31, 2012 and the Decision and Order on the Settlement Agreement EB-2011-0327 issued on February 21, 2012